

APPENDIX A

Natural Heritage Evaluation

Townline Road Servicing Class EA

Town of Fort Erie, Niagara Region, Ontario

Natural Heritage Evaluation Report

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Executive Summary

The Town of Fort Erie is completing a Municipal Class Environmental Assessment (Schedule B) to evaluate and select preferred solutions to provide water, sanitary and stormwater services in the area north and south of Townline Road between Netherby Road and the QEW. Aboud & Associates Inc. (AA) has been retained to complete a Natural Heritage Evaluation to identify natural heritage, and species at risk constraints present in the study area, provide suggested detailed design requirements, proposed mitigation, and future requirements for any candidate species at risk habitat or candidate significant wildlife habitat found in the area.

The servicing project location is within the Douglastown Delineated Built-up Area per the Niagara Region Official Plan (2022).

A background review found 225 wildlife species, with 28 of these being species of conservation concern.

A site visit was completed to perform a Species at Risk (SAR) Habitat assessment, Significant Wildlife Habitat (SWH) assessment, and an Ecological Land Classification & one-season botanical inventory. During the site visit, incidental observations of three bird species were noted. Potential habitat for 22 SAR was identified. Significant Wildlife Habitat in the form of Deer Wintering Areas was confirmed, while candidate SWH in the form of Bat Maternity Colony, Seeps and Springs, Amphibian Breeding Habitat/Corridor, Terrestrial Crayfish and Special Concern & Rare Wildlife Species was identified within the servicing area. The botanical inventory identified one species; Pin Oak (*Quercus palustris*), with a conservation co-efficient greater than 8.

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1.0 Introduction

The Town of Fort Erie is completing a servicing study to evaluate and identify preferred solutions for water, sanitary, and stormwater services in the area north and south of Townline Road between Netherby Road and the QEW. A portion of this work includes the construction of a pumping station within the southwest corner of the servicing area, and WT Infrastructure has requested that a natural heritage assessment be undertaken for this property based on comments received from the NPCA.

This Natural Heritage Evaluation has been completed to characterize and document natural heritage features within the study area, determine potential constraints and assess impacts, outline additional policy requirements under the applicable Official Plans and Conservation Authority requirements, and any expected permit requirements for the proposed works under the Ministry of Natural Resources and Forestry (MNRF), Ministry of Environment, Conservation and Parks (MECP), *Species at Risk Act* (SARA) and *Endangered Species Act* (ESA).

1.1 Project Background & Rationale

The servicing project location is comprised of the lands north and south of Townline Road from the QEW west to Netherby Road and includes the entirety of the residential subdivision south of Townline road to the QEW west on-ramp north of Townline Road.

The proposed works include a sanitary sewer within the Townline Road right-of-way and a pumping station located within the southwest corner of the servicing project location. The Natural Heritage Evaluation focuses primarily on the pumping station subject property. The Ecological Land Classification and botanical inventory were completed for the study area surrounding the pumping area subject property (see Section 1.2), while the SAR assessment and SWH assessment were completed for the entirety of the servicing project location.

1.2 Existing Land Use and Study Area

The property being investigated for the development of the pumping station is located within the southwest corner of the servicing project location, immediately south of the intersection of Townline Road and Netherby Road. The pumping station subject property is immediately north of a residential community, with rural residential properties to the north-west and NPCA regulated wetland features to the northeast, across Townline Road.

The study area for the Natural Heritage Evaluation includes the pumping station subject property and lands up to 120 metres beyond the pumping station subject property, where permission to access property is granted (*Figure 1*). Where access to property was not granted, studies were conducted from the road right-of-way, a review of air photos of the study area, and background information.

1.3 Existing Regulations

1.3.1 Provincial Planning Statement

The *Provincial Planning Statement* ([PPS] OMMHA 2024) provides policy direction on matters of provincial interest related to land use planning and development.

In regard to **Natural Heritage Protection** the PPS states that:

“Natural features and areas shall be protected for the long term.”

And that:

“The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.”

“Development and site alteration shall not be permitted in:

- a) Significant wetlands in Ecoregions 5E, 6E and 7E; and
- b) Significant coastal wetlands.

Development and site alteration shall not be permitted in:

- a) Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
- b) Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary’s River);
- c) Significant valley lands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary’s River);
- d) Significant wildlife habitat;
- e) Significant areas of natural and scientific interest; and
- f) Coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b)”

The PPS (2024) also states that:

- “Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.”

- *“Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5, and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*
- *“Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.”*

The pumping station is considered infrastructure and therefore is not prohibited on lands containing significant resources. However, natural features must be documented and considered when selecting a preferred option.

1.3.2 Endangered Species Act, 2007

The provincial *Endangered Species Act, 2007* (ESA) prohibits the killing, harm, capture or take of a living member of a species listed as Extirpated, Threatened or Endangered on the Species at Risk in Ontario list. The habitat of species at risk is also generally protected from damage or destruction under the ESA.

Habitat is defined as the following under the ESA for (subject to section 3):

1. Animal species:

- (i) a dwelling-place, such as a den, nest or other similar place, which is occupied or habitually occupied by one or more members of a species for the purposes of breeding, rearing, staging, wintering or hibernating, and*
- (ii) the area immediately around a dwelling place described in subclause (i) that is essential for the purposes set out in that subclause.*

1. Vascular plant species:

the critical root zone surrounding a member of the species, and

1. All other species:

An area on which any member of a species directly depends in order to carry on its life processes.

An authorization or permit between the proponent and the Minister of Environment, Conservation and Parks is required to authorize activities that would otherwise be prohibited by subsection 9(1) and 10(1), or 17(1) of the ESA.

1.3.3 Niagara Peninsula Conservation Authority

A portion of the servicing project location contains wetland features within the Black Creek Provincially Significant Wetland (PSW) Complex, tributaries to Black Creek and their respective regulated allowances. The wetland features are located north of Townline Road, immediately east and west of Netherby Road and south of the QEW. Identified watercourses span the residential community south of Townline Road as well as drain from south of Townline Road east of the residential community into Black Creek (*Figure 1*).

The NPCA's *Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority* (April 2024) outlines restrictions of development as it pertains to PSW's, watercourses and their regulated allowance and includes policies per Ontario Regulation 41/24.

Per Section 3.3.1:

"The following lists some of the typical forms of development activities which require an NPCA Permit from the NPCA:

... m) certain forms of infrastructure, such as but not limited, bridges, crossings, roads and other types of infrastructure which have received approval under the Environmental Assessment Act or Planning Act."

Section 8.1.3.2 states that the area of interference for wetlands is considered to be a regulated area under Ontario Regulation 41/24. The area of interference is 30 metres.

Per Section 10.0, the policies identified in Section 10.1 apply to all infrastructure projects in addition to the policies in Section 10.2, 10.3 and 10.4. Policies identified in Section 10.1 specific to wetland features are as follows:

"... d) Notwithstanding any other clause in Section 1.01, only through Environmental Assessment could infrastructure interfere with a wetland provided that all alternatives to avoid wetland loss or interference have been considered and where unavoidable, the proposed alignment minimizes wetland loss or interference and maintains wetland water balance to the greatest extent feasible."

Furthermore, Section 10.2 states:

"Infrastructure installed underground includes, but is not limited to: sanitary sewers, watermains, gas..."

1) That development activities, interference and alterations associated with new, replacement or expanded underground infrastructure may be permitted where it has been demonstrated that all feasible alternative sites and alignments have been considered through an environmental assessment, or equivalent technical report,

whichever is applicable based on the scale and scope of the project, and where it can be demonstrated to the satisfaction of NPCA that:

- a) There are no negative impacts to the quality and quantity of groundwater and surface water, including stream baseflow;*
- b) Impacts on groundwater flow and discharge are minimized and mitigated;*
- c) Erosion hazards of valley and stream corridors and the Lake Ontario, Lake Erie and Niagara River shorelines are avoided;*
- d) All options for horizontal and vertical alignments to avoid, minimize and/or mitigate impacts on aquifers and surface water receptors have been considered;*
- e) Dewatering and/or dewatering discharge during and post construction will be managed; and*
- f) Design and construction technologies are used to reduce the risk of hydrological impacts and minimize grade alterations to existing topography.”*

1.3.4 Niagara Region Official Plan (2022)

As of January 1, 2025, Bill 23 (More Homes Built Faster) has come into effect, transferring land-use planning responsibilities from the Niagara Region to the local municipality. As such, the Town of Fort Erie is now responsible for administering all planning approvals pertaining to the proposed servicing.

1.3.5 Town of Fort Erie Official Plan (2021 Consolidation)

The Fort Erie Official Plan (2021 Consolidation) Schedule C indicates that Natural Heritage Features in the form of Provincially Significant Wetlands and Woodlands over 2 hectares are present within the servicing area. Schedule C does not indicate the presence of any Natural Heritage Features within the pumping station subject property.

Section 8.1 (VII) states:

“Public works and/or private infrastructure works and actions shall be undertaken in ways that are consistent with the protection of Natural Heritage Features and Areas. In instances where public and/or private infrastructure works may impinge upon these areas, the Town will give consideration to the impacts of its proposed actions, consider alternatives and implement measures to minimize or preferably avoid impacts if feasible. Such public and/or private infrastructure works shall be subject to Section 8.1 and Section 12.6.”

Furthermore Section 12.6 (II) states:

“In Agricultural, Environmental Protection or Environmental Conservation Area designations, only public uses of a linear nature including utilities shall be permitted where no other reasonable location is available, subject to the policies of this Plan. The

impact of these linear facilities on agriculture, surface drainage and the environment shall be minimized.

These uses shall only be permitted within Environmental Protection Areas, Environmental Conservation Areas or lands adjacent thereto, within existing rights-of-way or easements, or if justified through and Environmental Assessment approved under Provincial or Federal legislation. Within Environmental Conservation Areas or lands adjacent thereto, and Environmental Impact Study can also be used to justify the proposed use. In all cases the policies of Section 8 of this plan must be complied with. Any requirements of the Niagara Peninsula Conservation Authority shall be complied with.”

1.3.6 Town of Fort Erie Comprehensive Zoning By-law No. 129-90

Per the Town of Fort Erie Interactive Zoning Map, zoning designations within the servicing area include:

- Highway Commercial Zone (C3);
- Environmental Conservation (EC) Overlay;
- Environmental Protection (EP);
- Automobile Service Station (C4);
- Agricultural (A);
- Recreational Commercial (C5);

The pumping station subject property is currently zoned as Automobile Service Station (C4).

Section 6.24 states:

“This By-law shall not be deemed to:

- a) Prevent the use of any land for the erection of buildings or structures, or the installation of any sewage or water works or other facilities essential to the operation of a Public, provided that any such use, building or structure shall be in substantial compliance with relevant provisions of this By-law and shall not adversely affect the character or amenity of the neighbourhood in which same is located; however, offices, maintenance/repair yards and institutional uses for public agencies and public utilities are not permitted in any Agricultural or Rural zone.”*

2.0 Methods

2.1 Background Review

A background information review was conducted of both biological and physical features within the vicinity of the study area. The following resources were consulted as part of this review:

1. Natural Heritage Information Centre (NHIC) database (accessed September 2023),
2. Ontario Reptile and Amphibian Atlas Interactive map (Ontario Nature 2019, accessed May 2023),
3. Ontario Mammal Atlas (1994; accessed September 2023),
4. Atlas of the Breeding Birds of Ontario, 2001-2005 (accessed September 2023),
5. NPCA Watershed Explorer Mapping (accessed September 2023),
6. NPCA Natural Areas Inventory 2006-2009 Volume 2,
7. Natural Areas Inventory: Town of Fort Erie's Settlement Areas Volume 2 (2003),
8. Ontario Butterfly Atlas (accessed September 2023),
9. iNaturalist (accessed October 2023),
10. eBird (accessed October 2023),
11. DFO Aquatic Species at Risk Mapping (accessed September 2023),
12. Aquatic Resource Area Survey Point and Line Segment data (accessed November 2023).
13. NPCA Comments Townline Road Servicing Class EA Notice of Study Commencement (dated: August 24, 2023),
14. Black Creek Provincially Significant Wetland Evaluation (MNRF, 2004).

2.2 Vegetation

A detailed Ecological Land Classification (ELC) survey of the pumping station study area (*Figure 2*) was completed by qualified Ecologist, Shannon Davison, Certified in Ecological Land Classification, on October 6, 2023. ELC surveys were conducted where access was permitted. Vegetation communities within the study area were characterized and delineated through field investigation, following the ELC system for Southern Ontario 1st approximation; community codes generally follow the 2nd approximation (Lee et. Al., 1998, 2008). Boundaries of ELC communities were mapped

using aerial imagery and field observation (*Figure 2*). Digitized ELC data sheets are provided in *Appendix 1*.

Identified ELC communities were cross-referenced with the NHIC Ontario Plant Community List (NHIC 2022) to determine the presence of rare plant communities (S3-S1). The subnational or provincial ranks (S-Rank) are assigned by the MNRF Natural Heritage Information Centre (NHIC) to help assign protection priorities.

2.2.1 Botanical Inventory

Concurrent with ELC evaluations, the pumping station study area was inventoried where access was permitted, and from the property limits and roadside, to provide a comprehensive one-season (fall) botanical inventory.

Identified vascular plant species were compared to provincial and federal SAR lists (COSSARO, SARA), provincial ranks (NHIC 2022), global ranks, and Distribution and Status of the Vascular Plants of Southwestern Ontario (Oldham 1993) in order to assess federal, provincial, regional and local conservation status of each species. English colloquial names and scientific binomials of plant species generally follow the Database of Vascular Plants of Canada (VASCAN 2016).

Identification of environmentally sensitive plant species was completed based on assignment of a coefficient of conservatism value (CC) for each native species (Oldham et al., 1995). The value of CC, ranging from 0 (low) to 10 (high), is based on a species' tolerance to disturbance and fidelity to specific natural habitat parameters. Species with a CC value of 9 or 10 generally exhibit a high degree of fidelity to a narrow range of habitat parameters. These species may be more sensitive to environmental changes (Mortarello et al., 2010).

A list of all identified plant species is provided in *Appendix 2*. The list provides botanical names, common names, provincial rarity rank (S-rank), global rarity rank (G-rank), provincial Species at Risk status (SARO), federal Species at Risk status (SARA), regional rarity/significance within Niagara Region, coefficient of conservatism and coefficient of wetness (CW). Plant species that could only be identified to genus were not assigned the above information.

2.3 Wildlife

2.3.1 Incidental Wildlife Observations

Incidental observations of insects, mammals, birds, and reptiles were recorded during the field investigations.

2.4 Significant Wildlife Habitat

With guidance from the *Significant Wildlife Habitat Technical Guide* (2000) and the *SWH EcoRegion Criterion Schedule 7E* (2015b), the study area and adjacent lands were considered for the presence of Significant Wildlife Habitat (e.g., specialized habitats for wildlife, habitat for species of conservation concern) during the site visit on October 6, 2023. An assessment of the pumping station study area and the servicing area for all SWH is provided in *Appendix 3*.

2.5 SAR & Species of Conservation Concern Habitat Assessment

A thorough review of background documents was conducted to compile a master list of all SAR, and species with conservation designation that may occur in the study area. A review of the site, along with habitat requirements for each species; the site was then evaluated for potential habitat using Ecological Land Classification, guidance from MNRF documents, and on-site knowledge acquired through field surveys conducted concurrently with the SWH assessment. An assessment of the pumping station study area and the servicing area for suitable habitat for SAR listed as Threatened or Endangered as well as Species of Conservation Concern is provided in *Appendix 4*.

3.0 Existing Conditions

Information that characterizes the existing conditions of the study area came from several sources, including but not limited to background review of existing documents, public information sources, and field reconnaissance.

3.1 Background Review

Eleven SAR listed as Threatened or Endangered and 16 Species of Conservation Concern, were identified in the background review and are listed in *Table 1*, including provincial and federal status, and what background source(s) identified its presence. A summary of the results of each background source is provided below and a list of all wildlife species found in the background review can be found in *Appendix 5*. A review of each SAR and species of conservation concern identified through background resources and their habitat requirements are included in *Appendix 4*.

3.1.1 Ontario Breeding Bird Atlas

A list of birds recently or historically determined to be breeding (Possible, Probable or Confirmed) in the 10 km x 10 km square containing the study area (17PH65) during the 2001-2005 Ontario Breeding Bird Atlas (Cadman et. al. 2007) was compiled. This list includes 100 species, eight of which are considered SAR under the ESA and SARA respectively: Chimney Swift (*Chaetura pelagica*; THR, THR), Red-headed Woodpecker (*Melanerpes erythrocephalus*; END, END), Barn Swallow (*Hirundo rustica*; THR, THR), Bobolink (*Dolichonyx oryzivorus*; THR, THR), Eastern Meadowlark (*Sturnella magna*; THR, THR), Eastern Wood-pewee (*Contopus virens*; SC, SC), Yellow-breasted Chat (*Icteria virens*; END, END), and Wood Thrush (*Hylocichla mustelina*; SC, THR).

3.1.2 Ontario Reptile and Amphibian Atlas

Review of the Ontario Reptile and Amphibian Atlas identified 26 species that are known to occur within the 10 km x 10 km square containing the study area (17PH65). This list includes two species considered SAR under both the ESA and SARA: Blanding's Turtle (*Emydoidea blandingii*; THR, END) and Snapping Turtle (*Chelydra serpentina*; SC, SC). Milksnake (*Lampropeltis triangulum*) and Midland Painted Turtle (*Chrysemys picta marginata*) are both listed federally as Special Concern.

3.1.3 Atlas of the Mammals of Ontario

Review of the Atlas of the Mammals of Ontario (1994) identified seven species that are known to occur within 10 km x 10 km square containing the study area (17PH65). No SAR were identified in this review, although it should be noted that SAR bats can be found anywhere in Ontario.

3.1.4 eBird

eBird is an online reporting system for birdwatchers managed by the Cornell Lab of Ornithology. The database was reviewed to determine what bird species were reported in the vicinity of the property. The closest reporting location is the Douglas Town Sewage Lagoons, located approximately 600m northwest of the servicing area. One hundred and two species were observed, including five species of conservation concern: Chimney Swift, Barn Swallow, Bobolink, Eastern Wood-pewee, and Lesser Yellowlegs (*Tringa flavipes*; THR, NL).

3.1.5 iNaturalist

iNaturalist, a self-reporting system that is not limited by taxa, was also consulted in the background review. The search was limited to approximately 1 km surrounding the servicing area and only research grade reports, which are confirmed independently, were used to compile the list. Eight vascular plant species, three bird species, two reptile species, two insect species, one fungus and one crustacean were identified, including three SAR: Lesser Yellowlegs, Common Snapping Turtle, and Midland Painted Turtle.

3.1.6 Natural Heritage Information Centre - Species at Risk

Preliminary investigation through the Natural Heritage Information Centre (NHIC) identified eleven SAR, listed under the ESA and SARA, respectively, recorded within the nine 1 km x 1 km squares containing the servicing area (17PH5959, 17PH5958, 17PH5957, 17PH6059, 17PH6058, 17PH6057, 17PH6159, 17PH6158 & 17PH6157): Wood Thrush, Snapping Turtle, Grass Pickerel (*Esox americanus*; SC, SC), Eastern Meadowlark, Eastern Wood-pewee, Bobolink, Lake Sturgeon (*Acipenser fulvescens* pop. 3; THR, NL), Red-headed Woodpecker, Barn Swallow, Yellow-breasted Chat & Milksnake. An additional four species ranked provincially as S3 (Vulnerable) were identified: Greater Redhorse (*Moxostoma valenciennesi*), Tufted Titmouse (*Baeolophus bicolor*), Black Gum (*Nyssa sylvatica*) and Green Arrow Arum (*Peltandra virginica*).

3.1.7 Ontario Butterfly Atlas

Review of the Atlas of the Butterflies of Ontario identified 29 species that are known to occur or have historically occurred in the 10 km x 10 km square that contains the study area (17NH77). This list includes one Species at Risk, Monarch (*Danaus plexippus*; SC, SC).

3.1.8 DFO Aquatic Species at Risk Report

The online Fisheries and Oceans Canada (DFO) mapping system was consulted in the background review. A review for SAR critical habitat and species presence was completed in a 1 km radius around the subject structure. Species at Risk found (or potentially found) within the 1km radius includes two species, Grass Pickerel and Northern Sunfish (*Lepomis peltastes pop. 2*; SC, SC). No critical habitat was identified within the 1 km radius.

3.1.9 Aquatic Resource Area Data

The Aquatic Resources Area (ARA) Survey Point and Line Segment mapping identified 23 fish species occurring within 1 km of the structure. None of the species identified are considered SAR provincially or federally.

3.1.10 Niagara Peninsula Conservation Authority

In correspondence provided by the NPCA regarding the Notice of Study Commencement of the Townline Road Servicing Class EA, the NPCA listed 11 SAR that had been documented within approximately 1 km of the study area. SAR listed include Small White Lady's-slipper (*Cypripedium candidum*; END, END), West Virginia White (*Pieris virginiensis*; SC, NL), Wood Thrush, Barn Swallow, False Hop Sedge (*Carex lupuliformis*; END, END), Grass Pickerel, Northern Sunfish, Red-headed Woodpecker, Short-eared Owl (*Asio flammeus*; THR, SC), Snapping Turtle and Yellow-breasted Chat. An additional four species ranked S3 were also identified: Greater Redhorse, Kansas Hawthorn (*Crataegus coccinioides*), Green Arrow Arum and Wabash Pigtoe (*Fusconaia flava*).

3.1.11 Ministry of the Environment, Conservation & Parks

A request for information was sent to the MECP on November 24, 2023, to inquire whether any further SAR may occur in the study area. A response has not yet been received. If a response is received following the submission of this report, it will be submitted as an addendum. A copy of the request and response can be found in *Appendix 6*.

3.1.12 Ministry of Natural Resources and Forestry

A request for natural heritage information in the study areas was sent to the MNRF on November 24, 2023, with a response provided on November 27, 2023. The response provided the wetland evaluation for the Black Creek PSW, identified the presence of White-tailed Deer Wintering Area (stratum 2), indicated the presence of 23 fish taxa

(none of which are SAR) and identified that the restricted in-water work timing window is March 1-July1. A copy of the request and response can be found in *Appendix 7*.

3.1.12 Background Summary

A total of 28 listed wildlife SAR & Species of Conservation Concern were found in the background review. Fifteen species are listed both provincially and federally, three are only listed provincially, and two are only listed federally. Six additional species are ranked S1-S3 provincially, indicating rarity within the province. A summary of the findings of this review are presented in *Table 1*.

COMMON NAME	SCIENTIFIC NAME	COSSARO	SARO	COSEWIC	SARA	S-RANK	G-RANK	N-RANK	AREA SENSITIVE	AREA REQUIRED	PIF SPECIES (BCR 13)
Barn Swallow	<i>Hirundo rustica</i>	SC	SC	THR	THR	S4B	G5	N3N4B, N3N4M			
Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	THR	THR	S3B	G4G5	N4BN3M			✓
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	THR	THR	S4B	G5	N5B, N4N5M	✓	>10ha	✓
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	THR	THR	S4B, S3N	G5	N4B, NUM	✓	>10ha	✓
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	SC	SC	S4B	G5	N5B, N5M			✓
Lesser Yellowlegs	<i>Tringa flavipes</i>	THR	THR	THR	NL	S3S4B, S5M	G5	N4N5B, N5M			
Short-eared Owl	<i>Asio flammeus</i>	THR	THR	THR	SC	S4?B, S2S3N	G5	N4B, N3N, N4M	✓	>75ha	✓
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	END	END	END	END	S3	G5	N4B, N3M			✓
Wood Thrush	<i>Hylocichla mustelina</i>	SC	SC	THR	THR	S4B	G4	N4B, NUM			✓
Yellow-breasted Chat	<i>Icteria virens</i>	END	END	END	END	S1B	G5	N3N4B, N3N4M			✓
Tufted Titmouse	<i>Baeolophus bicolor</i>	NL	NL	NL	NL	S3	G5	N4	✓	>4ha	
Monarch	<i>Danaus plexippus</i>	SC	SC	END	SC	S2N, S4B	G5	N3B, NNRM			
West Virginia White	<i>Pieris virginiensis</i>	NL	SC	NL	NL	S3	G3?	N3			
Fowler's Toad	<i>Anaxyrus fowleri</i>	END	END	END	END	S2	G5	N2			
Milksnake	<i>Lampropeltis triangulum</i>	NL	NL	SC	SC	S4	G5T5	N3			
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	THR	END	END	S3	G4	N3			
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	NL	NL	SC	SC	S4	G5T5	N4			
Snapping Turtle	<i>Chelydra serpentina</i>	NL	SC	SC	SC	S4	G5T5	N4			
Lake Sturgeon (Great Lakes-Upper St. Lawrence River)	<i>Acipenser fulvescens</i> pop. 3	THR	THR	THR	NL	S2	G3G4TNRQ	N3			

COMMON NAME	SCIENTIFIC NAME	COSSARO	SARO	COSEWIC	SARA	S-RANK	G-RANK	N-RANK	AREA SENSITIVE	AREA REQUIRED	PIF SPECIES (BCR 13)
Grass Pickerel	<i>Esox americanus</i>	SC	SC	SC	SC	S3	G5	N4			
Northern Sunfish (Great Lakes- Upper St. Lawrence River)	<i>Lepomis peltastes pop. 2</i>	SC	SC	SC	SC	S3	G5TNRQ	N3?			
Greater Redhorse	<i>Moxostoma valenciennesi</i>	NL	NL	NL	NL	S3	G4	N4			
Wabash Pigtoe	<i>Fusconaia flava</i>	NL	NL	NL	NL	S2S3	G5	N3			
Small White Lady's-slipper	<i>Cypripedium candidum</i>	END	END	THR	END	S1	G4	N2			
False Hop Sedge	<i>Carex lupuliformis</i>	END	END	END	END	S1	G4	N1N2			
Black Gum	<i>Nyssa sylvatica</i>	NL	NL	NL	NL	S3	G5	N3			
Green Arrow Arum	<i>Peltandra virginica</i>	NL	NL	NL	NL	S3	G5	N2N3			
Kansas Hawthorn	<i>Crataegus coccinoides</i>	NL	NL	NL	NL	S2	G4	N2			

3.2 Vegetation

3.2.1 Ecological Land Classification

The community polygons identified during the ELC survey are summarized in *Table 2* below. Field forms and a comprehensive vascular plant list for the pumping station study area are presented in *Appendices 1 & 2*, respectively.

Table 1. Ecological Land Classification Communities

ELC Code ¹	Vegetation Type	Summary Description
<i>Deciduous Thicket (THD)</i>		
THDM5	Fresh- Moist Deciduous Thicket	The entirety of the pumping station property consists of this Deciduous Thicket community. The canopy and subcanopy are sparse, with individuals primarily occurring along the outer edges of the community. The canopy consists of American Elm (<i>Ulmus americana</i>), Pin Oak (<i>Quercus palustris</i>) and Crack Willow (<i>Salix x fragilis</i>), with the subcanopy including American Elm, Heart-leaved Willow (<i>Salix eriocephala</i>) and Staghorn Sumac (<i>Rhus typhina</i>). The understorey is comprised of White Meadowsweet (<i>Spiraea alba</i>), Red-osier Dogwood (<i>Cornus sericea</i>), Nannyberry (<i>Viburnum lentago</i>) and Gray Dogwood (<i>Cornus racemosa</i>), while the ground layer includes Eastern Late Goldenrod (<i>Solidago altissima</i>), Calico Aster (<i>Symphyotrichum lateriflorum</i>), Panicked Aster (<i>Symphyotrichum lanceolatum</i>) and Canada Goldenrod (<i>Solidago canadensis</i>).
<i>Deciduous Forest (FOD)</i>		
FODM11	Naturalized Deciduous Hedgerow	This community occurs within the western portion of the pumping station study area, north of Netherby Road. The canopy includes Red Oak, with subcanopy being comprised of American Elm, Pin Oak, White Oak (<i>Quercus alba</i>) and Common Apple (<i>Malus pumila</i>). The understorey consists of White Ash, Common Buckthorn (<i>Rhamnus cathartica</i>), Gray Dogwood, and White Oak, with the ground layer including Kentucky Bluegrass (<i>Poa pratensis</i>), Canada Bluegrass (<i>Poa compressa</i>), Panicked Aster and Wild Strawberry (<i>Fragaria virginiana</i>).

Table 1. Ecological Land Classification Communities

ELC Code ¹	Vegetation Type	Summary Description
<i>Graminoid Meadow (MEG)</i>		
MEGM3	Dry- Fresh Graminoid Meadow	This community is located northwest of Netherby Road across from the pumping station subject property. The canopy and subcanopy consist of very few individuals including American Elm, Sugar Maple (<i>Acer saccharum</i>), Red Maple (<i>Acer rubrum</i>) and White Oak. No understorey is present within this community. The ground layer includes Bluegrass species (<i>Poa sp.</i>), Canada Goldenrod, Wild Carrot (<i>Daucus carota</i>) and Reed Canary Grass (<i>Phalaris arundinacea</i>).
<i>Mixed Meadow (MEM)</i>		
MEMM3	Dry- Fresh Mixed Meadow	This community occurs east of Townline Road, opposite the pumping station subject property. No canopy or subcanopy is present within this community. The understorey consists of Large-toothed Aspen (<i>Populus grandidentata</i>), Nannyberry, American Elm and Purple Willow (<i>Salix purpurea</i>). The ground layer includes Bluegrass species, Canada Goldenrod, a Goldenrod species (<i>Solidago sp.</i>), and Calico Aster.
<i>Deciduous Swamp (SWD)</i>		
SWDM1	Oak Mineral Deciduous Swamp	This community occurs along the northern limit of the pumping station study area, on both sides of Netherby Road, extending north and east into the servicing project area. Due to access restrictions this community was investigated from the road right-of-way. Therefore, a more detailed community classification could not be determined. The canopy and subcanopy consist primarily of Oak species including Pin Oak and Red Oak (<i>Quercus rubra</i>), with American Elm and White Ash (<i>Fraxinus americana</i>) were present along the road edge. The understorey includes White Ash, a Hawthorn species (<i>Crataegus sp.</i>) and Gray Dogwood, with the ground layer being comprised of a Bluegrass species, Eastern Poison Ivy (<i>Toxicodendron radicans</i>), Panicked Aster and Norwegian Cinquefoil (<i>Potentilla norvegica</i>). It is expected that the species assembly in the interior of the site is more representative of a swamp community.

ELC Codes generally follows the ELC Second Approximation (Lee 2008)

3.2.1.1 Species at Risk, Regional and Local Significance

No vegetation communities listed in *Table 2* are considered rare in the province.

A one-season (fall) botanical inventory of the Pumping Station Study Area, where access was permitted, was completed on October 6, 2023. A total of 50 vascular plants were identified to species within the Pumping Station Study Area, with an additional three identified to genus. Of those identified to species, 33 species (66%) were native, and 17 species (34%) were exotic. Most of the native species are ranked S5 (Secure in Ontario) or SNA (S-Rank not applicable), with four species, White Ash, Green Ash (*Fraxinus pennsylvanica*), Pin Oak and Smooth Arrowwood (*Viburnum recognitum*) ranked as S4 (Apparently Secure in Ontario). One species observed; Pin Oak, has a CC of 9. One species observed; Hard-stemmed Bulrush (*Schoenoplectus acutus*) is considered Rare in Niagara Region (NPCA, 2010).

A complete list of the vascular plant species observed during the vegetation survey is provided in *Appendix 2*.

3.2.2 Black Creek Wetland Evaluation

The wetland evaluation forms for the Black Creek Provincially Significant Wetland complex provided by the MNRF were consulted to obtain further information pertaining to the wetland features within the servicing area. Per the evaluation, the wetland features within the northern portion of the servicing area, immediately north and south of Netherby Road near the QEW consist of deciduous swamp. Deciduous species noted to be present in both features include Green Ash, Silver Maple (*Acer saccharinum*), Pin Oak, American Elm, Red Maple, Swamp White Oak (*Quercus bicolor*) and Red Oak. The information provided as well as that collected during field investigations was used in the ELC community classification for these features.

3.3 Wildlife

3.3.1 Incidental Wildlife Observations

All incidental wildlife observations made outside formal field surveys are presented in *Table 3*. All observations were of single individuals unless otherwise stated.

Table 2. Incidental Species Observations

Common Name	Scientific Name	Taxa	Date(s)	Location/Notes
Blue Jay	<i>Cyanocitta cristata</i>	Bird	October 6, 2023	Observed during ELC
Canada Goose	<i>Branta canadensis</i>	Bird	October 6, 2023	Observed during ELC
Mourning Dove	<i>Zenaida macroura</i>	Bird	October 6, 2023	Observed during ELC

3.4 Significant Wildlife Habitat

With guidance from the *Significant Wildlife Habitat Technical Guide* (2000) and the SWH EcoRegion Criterion Schedule 7E (2015), we have determined that there is confirmed SWH in the form of Deer Winter Congregation Areas and candidate SWH in the form of bat maternity habitat, seeps and springs, amphibian breeding habitat & corridors (Woodland), and special concern and rare wildlife species, including all species with Provincial SARO status, Federal SARA status, or an S-Rank of S1-S3. See *Appendix 3* for a detailed assessment of Significant Wildlife Habitat.

3.4.1 Special Concern and Rare Wildlife Species

The mixed meadow community within the study area and larger servicing area may provide suitable habitat for Monarch and Milksnake due to the presence of Common Milkweed and edge habitat associated with the Oak Mineral Swamp, respectively. No individuals were identified during field investigations; however, field investigations occurred outside of the time of year these species are typically present.

The Oak Mineral Deciduous Swamp community within the study area and larger servicing area may provide suitable habitat for Black Gum and Tufted Titmouse due to the community having moist soils and a dense canopy. This community may also provide suitable habitat for West Virginia White due to its potential to support Toothwort species (*Cardamine sp.*). Due to access restrictions this community could not be comprehensively inventoried. No individuals were observed from the edge of the community during field investigations.

3.5 SAR Habitat Assessment

An assessment of all Species at Risk listed as Endangered or Threatened under the *Endangered Species Act* (2007) that have the potential to occur in the study area based on lists provided by the DFO Aquatic Species at Risk mapping, Aquatic Research Area Polygons, Ontario Breeding Bird Atlas, eBird data, Ontario Reptile and Amphibian Atlas, Ontario Mammal Atlas, Ontario Butterfly Atlas, the NPCA Natural Areas Inventory, iNaturalist, MNRF and the NHIC was completed. A description of habitat requirements and results are provided in *Appendix 4*. Suitable habitat for 12 SAR was identified in the pumping station location study area or larger servicing area.

3.5.1 Bobolink, Eastern Meadowlark & Short-eared Owl

The meadow communities may provide suitable habitat for avian species including Bobolink, Eastern Meadowlark, Short-eared Owl and Yellow-breasted Chat due to the abundance of graminoid species and the contiguous nature of the natural community.

No individuals were identified during field investigations; however, field investigations occurred outside of the time of year these species are typically present.

3.5.2 Yellow-breasted Chat

Portions of the meadow communities within the study area and larger servicing area may provide suitable habitat for Yellow-breasted Chat due to the presence of early successional shrub habitat. No individuals were identified during field investigations; however, field investigations occurred outside of the time of year this species is typically present.

3.5.3 Red-headed Woodpecker

The treed communities within the servicing area may provide suitable habitat for Red-headed Woodpecker due to the abundance of mid-aged deciduous species and potential for snags exhibiting cracks, crevices and loose bark. No individuals were observed during field investigations; however, field investigations occurred outside of the time of year these species are typically present.

3.5.4 SAR Bats

Little Brown Myotis, Northern Myotis, Tri-colored Bat, Eastern Red Bat, Hoary Bat, Eastern Small-footed Myotis and Silver-haired Bat are all listed as Endangered under the *Endangered Species Act* (2007). Suitable trees may be present within the Oak Mineral Deciduous Swamp communities. The field investigations occurred outside of the time of year these species are typically surveyed for and did not include targeted investigations.

4.0 Summary of Natural Heritage Constraints

The following is a summary of the existing natural heritage features identified within the servicing area and proposed pumping station study area of the Townline Road Class EA. It should be noted that this study focused on the proposed pumping station property and study area. Natural features within the servicing area, outside of the pumping station study area, were assessed for suitable SAR and SWH habitat primarily using aerial imagery and background sources.

4.1 Summary of Existing Conditions

4.1.1 Vegetation

Pumping Station Study Area

1. Six natural or naturalized vegetation communities were identified and mapped. None of the ELC communities identified are considered provincially rare.
 - a. One species identified, Pin Oak, has a conservation coefficient of 9.
2. A portion of the Black Creek Provincially Significant Wetland complex is present within the pumping station study area and extends into the servicing area.
3. Significant Woodlands are present within the pumping station study area and extend into the servicing area.

Servicing Area

Vegetation communities within the greater servicing area were not included within the Ecological Land Classification or botanical inventory. Significant natural heritage features in the form of the Black Creek PSW and Significant Woodlands are present within the northern portion of the servicing area.

4.1.2 Wildlife

Pumping Station Study Area

1. Three bird species were observed in the study area during the site visit.

Servicing Area

1. Suitable habitat for SAR and SWH were assessed for the servicing area outside of the pumping station study area using aerial imagery and background information sources.

4.1.3 SWH Assessment

Pumping Station Study Area

1. Candidate SWH in the form of Bat Maternity Habitat was identified within the study area.
2. Candidate SWH for Special Concern and Rare Wildlife species was identified within the study area.

Servicing Area

1. Confirmed SWH in the form of Deer Wintering Areas occurs within the Deciduous Swamp community in the northern portion of the Servicing Area.

2. Candidate SWH in the form of bat maternity colony, seeps and springs, amphibian breeding/corridor habitat, terrestrial crayfish and special concern and rare wildlife species habitat was identified within the servicing area.

4.1.4 SAR Habitat Assessment

Pumping Station Study Area

1. Candidate habitat for Bat SAR is present within the Pumping Station Study Area due to the presence of trees over 10cm in DBH.
2. No SAR were identified during field investigations.

Servicing Area

3. Suitable habitat for 12 SAR listed as Threatened or Endangered was identified in the entirety of the servicing area, with habitat for species of special concern identified as part of the SWH assessment.

5.0 Additional Requirements & Mitigation Recommendations

At the EA stage, additional studies and detailed mitigation plans should be prepared and implemented and include consideration for the following:

- Ensuring the hydrological regime to wetland features within the servicing area is maintained,
- Preparing and implementing an Erosion and Sediment Control (ESC) Plan as part of detailed design,
- Installing and monitoring a silt and sediment control barrier,
 - Silt fence to be inspected weekly during construction and following a storm event of 25mm of rainfall within 24 hours.
- Determine appropriate buffers to wetlands and woodlands,
- Keeping the area of construction disturbance to a minimum & locate works as far as possible from sensitive features (i.e., significant woodland, PSW),
- Controlling the access and movement of equipment and people & minimize the use of heavy equipment in sensitive areas,
- Selecting designs and materials that will minimize impacts,
- Improving driver awareness by installing wildlife crossing signs where appropriate,
- Timing construction activities to avoid wildlife disturbances:

- Avoid removal of trees and vegetation during the generalized breeding bird nesting period from April 1st to August 31st. If removal of vegetation is to occur during the general nesting period, a nest search should be conducted by a qualified ecologist/biologist.
- Impact of development on bats may vary seasonally. Most bats show clear seasonal changes in behaviour and roost selection (Mitchell-Jones, 2004). Removal of trees should occur outside of the bat maternity window (April 1-September 31).
- Complete required studies to determine if species at risk or their habitat are present once a preferred alternative has been selected.
- If SAR direct habitat impacts are expected, completion of an IGF, to confirm ESA requirements,
- Complete a Tree Preservation Plan once the preferred alternative has been selected. Initiate conversations with Town regarding required compensation.
- Develop and implement an edge management plan for natural features that will potentially be affected. This plan is to provide details such as the species selection and planting plan for a protective buffer and creation of a monitoring program to ensure survival of newly planted material.
- Complete a scoped EIS once the preferred alternative has been selected to identify impacts to sensitive species and habitats and determine appropriate mitigation.

Mitigation measures should be developed for any selected alternative to minimize impacts to protected natural heritage features during construction and retain and enhance the overall ecological integrity of the area. Mitigation recommendations for each alternative should be developed at the EA stage, and further refined through detailed design, in conjunction with the necessary agencies including NPCA, MECP, MNRF and DFO. Additionally, if impacts to Species at Risk are anticipated through any selected alternative, permits may be required under the ESA and SARA.

6.0 Conclusion

The Natural Heritage Evaluation was completed as part of the Townline Road Servicing Class Environmental Assessment, which is being completed to evaluate and select preferred solutions to water, sanitary and stormwater services in the area north and south of Townline Road between Netherby Road and the QEW. The Natural Heritage Evaluation has identified existing natural communities, candidate Species at Risk Habitat and Significant Wildlife Habitat within the servicing area, which must be considered while developing and ranking future alternatives and mitigation options.

Following the environmental assessment and determination of the preferred options, a scoped Environmental Impact Study is recommended to identify actual impacts and determine appropriate mitigation measures per the preferred options within the entirety of the servicing area. This study should include the following detailed field assessments at minimum, to determine if habitat for species at risk or significant wildlife habitat occurs within proximity of the preferred options and has the potential for impacts:

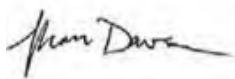
- Ecological Land Classification for the service area,,
- Wetland delineation,
- Woodland Dripline delineation,
- Breeding Bird Study, including Grassland breeding bird protocols where appropriate
- Short-eared Owl Occupancy Survey (following the Short-eared Owl Species Detection Survey Protocols (Government of Saskatchewan, 2015)
- Spring and Summer Botanical Assessment,
- Amphibian surveys (if breeding pools are identified),
- Aquatic Habitat Assessment,
- Bat Maternity Habitat Assessment
- Significant Wildlife habitat Assessment,
- Species at Risk Habitat Assessment,

Communication with the Municipality and Niagara Peninsula Conservation Authority should take place to ensure the study includes all required assessment through the provision of a Terms of Reference.

Please contact the undersigned should you require additional information of the above.

Prepared by:

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CERPIT #0499
OMNR Certified Ecological Land Classification
OMNR Certified Wetland Evaluation

Reviewed by:



Cheryl-Anne Ross, B. Sc.,
Ecology Lead & Wildlife Ecologist
OMNR Certified Ecological Land Classification
OMNR Certified Wetland Evaluation

References

- Bird Studies Canada. 2001. Ontario Breeding Bird Atlas: Guide for Participants. Bird Studies Canada in cooperation with Environmental Canada (Canadian Wildlife Service), Federation of Ontario Field Naturalists, Ontario Field Ornithologists, Ontario Ministry of Natural Resources.
- Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier. 2007. The Atlas of the Breeding Birds Ontario 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706pp.
- Dobbyn, John. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists, viii + 120pp.
- eBird. 2023. Available at: <https://ebird.org/home>
- Government of Saskatchewan. 2015. Species Detection Survey Protocols Short-eared Owl Surveys. May 2015.
- iNaturalist. 2023. Available at: <https://www.inaturalist.org/observations>
- Lee H.T. 2008. Southern Ontario Ecological Land Classification – Vegetation Type List Ontario Ministry of Natural Resources.
- Lee, H.T., W.D. Bakowsky, J.L. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurry. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section. Science Development and Transfer Branch. SCSS Field Guide FG-02
- MECP. 2023. Ontario Ministry of the Environment, Conservation and Parks. Species at Risk in Ontario. Available at: <https://www.ontario.ca/page/species-risk-ontario>
- Mitchell-Jones A.J. 2004. Bat Mitigation Guidelines. English Nature. January 2004
- MNRF. 2000. Ontario Ministry of Natural Resources. *Significant Wildlife Habitat Technical Guide*. October 2000.
- MNRF. 2010. Ontario Ministry of Natural Resources. *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005*. Second Edition. Toronto: Queen's Printer for Ontario.

- MNRF. 2015. Significant Wildlife Habitat Ecoregion 7E Criteria Guide. Ministry of Natural Resources and Forestry. Regional Operations Division, Peterborough Ontario, January, 2015.
- Mortarello, S., Mike Barry, M., Gann G., Zahina, J., Channon, S., Hilsenbeck, C., Scofield, D., Wilder, G., and Wilhelm, G. 2012. Coefficients of Conservatism Values and the Floristic Quality Index for the Vascular Plants of South Florida. *Southeastern Naturalist*. Volume 11(Monograph 3):1–62.
- NHIC. 2023. Natural Heritage Information Centre. *NHIC online database and mapping*. Ontario Ministry of Natural Resources. Available at: <https://www.ontario.ca/environment-and-energy/natural-heritage-information-centre>
- Niagara Region. 2022. Niagara Official Plan. November 4, 2022.
- OMMHA. 2020. Ontario Ministry of Municipal Affairs and Housing. *Ontario Provincial Policy Statement*.
- Ontario Nature. 2019. Ontario *Reptile and Amphibian Atlas*. Available at: http://www.ontarionature.org/protect/species/herpetofaunal_atlas.php
- SARA 2014. Federal Species at Risk Registry. Government of Canada. Available at http://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=110
- Town of Fort Erie. 2021. Town of Fort Erie Official Plan. September 1, 2021.
- Town of Fort Erie. 2022. Comprehensive Zoning By-law No. 129-90. June 2, 2022.
- VASCAN. 2015. Database of Vascular Plants of Canada (VASCAN). Université de Montréal Biodiversity Centre. Version 36. Published September 24, 2015.

Agency Correspondence

Denyes, David, Management Biologist. MNRF. Email, November 27, 2023

Figure 1
Servicing Area & Natural Constraints



LEGEND

	PROPOSED PUMPING STATION LOCATION		DEER OVERWINTERING AREA
	PUMPING STATION STUDY AREA		WETLAND
	SERVICING AREA		WOODLAND
	APPROXIMATE REGULATION AREA		

Information Sources:
1. Orthophotography provided by First Base Solutions, dated 2023, Accessed July 2023.
2. Woodlands, wetlands and Deer Wintering Area, Provided by Land Information Ontario Accessed, November 2023.
3. Approximate Regulation Limit provided by Niagara Peninsula Conservation Authority, Accessed November 2023.

Title:
SERVICING AREA & NATURAL CONSTRAINTS

Project:
**TOWNLINE ROAD CLASS EA
FORT ERIE, ON**

Date: JULY 2025
Project: AA23-226A
Scale: 1 : 5000

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Figure No. **1**

Figure 2
Ecological Land Classification

ELC CODE	ELC DESCRIPTION
CVR_3	Single Family Residential
CVR_4	Rural Property
FODM11	Naturalized Deciduous Hedgerow
ME	Meadow
MEGM3	Dry- Fresh Graminoid Meadow
MEMM3	Dry- Fresh Mixed Meadow
OAGM1	Annual Row Crop
SWDM1	Oak Mineral Deciduous Swamp
THDM5	Fresh- Moist Deciduous Thicket



LEGEND

- PUMPING STATION LOCATION
 ECOLOGICAL LAND CLASSIFICATION
- PUMPING STATION STUDY AREA

Information Sources:
1. Orthophotography provided by First Base Solutions,
dated 2023, Accessed July 2025.

ECOLOGICAL LAND CLASSIFICATION

Project:
TOWNLINE ROAD
CLASS EA
FORT ERIE, ON



Date: JULY 2025
Project: AA23-226A
Scale: 1 : 3500

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Figure No: **2**

Appendix 1

Ecological Land Classification Data Forms

Representative Photographs of Vegetation Community:



Representative Photographs of Vegetation Community:



Representative Photographs of Vegetation Community:



Representative Photographs of Vegetation Community:



Representative Photographs of Vegetation Community:



Appendix 2
Vascular Plant List

Plant Type ¹	Scientific Name	Common Name	CC ²	CW ³	SARO Status ⁴	SARA Status ⁵	Global Rank ⁶	Prov. Rank ⁷	Niagara Region (2010)
TR	<i>Acer rubrum</i>	Red Maple	4	0	NL	NL	G5	S5	C
TR	<i>Acer saccharum</i>	Sugar Maple	4	3	NL	NL	G5	S5	C
FO	<i>Achillea millefolium</i>	Common Yarrow	0	3	NL	NL	G5	SNA	C
FO	<i>Asclepias syriaca</i>	Common Milkweed	0	5	NL	NL	G5	S5	C
FO	<i>Centaurea stoebe</i>	Spotted Knapweed		5	NL	NL	GNR	SNA	IU
FO	<i>Cichorium intybus</i>	Chicory	*	5	NL	NL	GNR	SNA	IC
FO	<i>Cirsium vulgare</i>	Bull Thistle	*	3	NL	NL	GNR	SNA	IC
SH	<i>Comus racemosa</i>	Gray Dogwood	2	0	NL	NL	G5?	S5	C
SH	<i>Comus sericea</i>	Red-osier Dogwood	2	-3	NL	NL	G5	S5	C
FO	<i>Daucus carota</i>	Wild Carrot	*	5	NL	NL	GNR	SNA	IC
FO	<i>Dipsacus fullonum</i>	Common Teasel		3	NL	NL	GNR	SNA	IC
FO	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	2	0	NL	NL	G5	S5	C
FO	<i>Fragaria virginiana</i>	Wild Strawberry	2	3	NL	NL	G5	S5	C
SH	<i>Frangula alnus</i>	Glossy Buckthorn	*	0	NL	NL	GNR	SNA	IC
TR	<i>Fraxinus americana</i>	White Ash	4	3	NL	NL	G5	S4	C
TR	<i>Fraxinus pennsylvanica</i>	Green Ash	3	-3	NL	NL	G5	S4	C
FO	<i>Galium mollugo</i>	Smooth Bedstraw	*	5	NL	NL	GNR	SNA	IC
TR	<i>Malus pumila</i>	Common Apple	*	5	NL	NL	G5	SNA	IC
GR	<i>Phalaris arundinacea</i>	Reed Canary Grass	0	-3	NL	NL	G5	S5	C
GR	<i>Phragmites australis ssp. Australis</i>	European Reed		-3	NL	NL	G5T5	SNA	IC
FO	<i>Plantago major</i>	Common Plantain	*	3	NL	NL	G5	S5	IC
GR	<i>Poa compressa</i>	Canada Bluegrass	0	3	NL	NL	GNR	SNA	IC
GR	<i>Poa pratensis</i>	Kentucky Bluegrass	0	3	NL	NL	G5T5	SNA	IC
GR	<i>Poa sp.</i>	Bluegrass species							
TR	<i>Populus grandidentata</i>	Large-tooth Aspen	5	5	NL	NL	G5	S5	C
FO	<i>Potentilla norvegica</i>	Norwegian Cinquefoil	0	0	NL	NL	G5	S5	IC
TR	<i>Prunus sp.</i>	Cherry species							
TR	<i>Quercus alba</i>	White Oak	6	3	NL	NL	G5	S5	C
TR	<i>Quercus palustris</i>	Pin Oak	9	3	NL	NL	G5	S4	C
TR	<i>Quercus rubra</i>	Red Oak	6	3	NL	NL	G5	S5	C
SH	<i>Rhamnus cathartica</i>	Common Buckthorn	*	0	NL	NL	GNR	SNA	IC

Plant Type ¹	Scientific Name	Common Name	CC ²	CW ³	SARO Status ⁴	SARA Status ⁵	Global Rank ⁶	Prov. Rank ⁷	Niagara Region (2010)
SH	<i>Rhus typhina</i>	Staghorn Sumac	1	3	NL	NL	G5	S5	C
SH	<i>Rosa multiflora</i>	Multiflora Rose	*	3	NL	NL	GNR	SNA	IC
SH	<i>Salix eriocephala</i>	Heart-leaved Willow	4	-3	NL	NL	G5	S5	C
SH	<i>Salix purpurea</i>	Purple Willow	*	-3	NL	NL	G5	SNA	IU
TR	<i>Salix x fragilis</i>	Crack Willow	*		NL	NL	GNR	SNA	HYB
SE	<i>Schoenoplectus acutus</i>	Hard-stemmed Bulrush	5	-5	NL	NL	G5T5	S5	R
SE	<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush	5	-5	NL	NL	G5	S5	C
FO	<i>Solidago altissima</i>	Eastern Late Goldenrod	1	3	NL	NL	G-T5	S5	C
FO	<i>Solidago canadensis</i>	Canada Goldenrod	1	3	NL	NL	G5T5	S5	C
FO	<i>Solidago nemoralis</i>	Gray-stemmed Goldenrod	2	5	NL	NL	G5T5	S5	C
FO	<i>Solidago sp.</i>	Goldenrod species							
SH	<i>Spiraea alba</i>	White Meadowsweet	3	-3	NL	NL	G5	S5	C
FO	<i>Symphyotrichum lanceolatum</i>	Paniced Aster	3	-3	NL	NL	G5T5	S5	C
FO	<i>Symphyotrichum lateriflorum</i>	Calico Aster	3	0	NL	NL	G5	S5	C
FO	<i>Symphyotrichum novae-angliae</i>	New England Aster	2	-3	NL	NL	G5	S5	C
VW	<i>Toxicodendron radicans</i>	Eastern Poison Ivy	5	-1	NL	NL	G5	S5	C
FO	<i>Typha angustifolia</i>	Narrow-leaved Cattail		-5	NL	NL	G5	SNA	C
TR	<i>Ulmus americana</i>	American Elm	3	-3	NL	NL	G5	S5	C
FO	<i>Verbascum thapsus</i>	Common Mullein	*	5	NL	NL	GNR	SNA	IC
SH	<i>Viburnum lentago</i>	Nannyberry	4	0	NL	NL	G5	S5	C
SH	<i>Viburnum recognitum</i>	Smooth Arrowwood	7	0	NL	NL	G4G5	S4	C
FO	<i>Vicia cracca</i>	Tufted Vetch	*	5	NL	NL	GNR	SNA	IC

1.	Plant Types: AL = Algae; FE = Fern; FO = Forb; GR = Grass; LC = Lichen; LV = Liverwort; MO = Moss; RU = Rush; SE = Sedge; SH = Shrub; TR = Tree; VI = Herbaceous vine; VW = Woody Vine
2.	CC: Coefficient of Conservatism reflects a species' fidelity to a specific habitat. Range from 0 to 10; 10 = very conservative, not likely in disturbed habitats, 1 = least conservative, likely found in a broad range of habitat. * = value not assigned because they are non-native
3.	CW: Coefficient of Wetness reflects a species' affinity for wet soil conditions. Range from -5 to 5; -5 = obligate wetland species, 5 = obligate upland species.
4.	SARO: Status under the Provincial Endangered Species Act, listed on the Species at Risk in Ontario (SARO) list. In order of severity, statuses include: EXP = Extirpated; END = Endangered; THR = Threatened; SC = Special Concern
5.	SARA: Status under the National Species at Risk Act (SARA), assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In order of severity, statuses include: EXP = Extirpated; END = Endangered; THR = Threatened' SC = Special Concern

Plant¹ Type	Scientific Name	Common Name	CC²	CW³	SARO⁴ Status	SARA⁵ Status	Global⁶ Rank	Prov.⁷ Rank	Niagara Region (2010)
6.	Global rarity rank. Range from G1 to G5; G1 = Extremely rare, G5 = Very Common. NR = Unranked; U = Unrankable.								
7.	Provincial rarity rank. Range from S1 to S5; S1 = Extremely rare, S5 = Very Common. NR = Unranked; U = Unrankable.								
8.	Niagara Region (NPCA, 2010): C- Common; IC - Introduced Common; IU - Introduced Uncommon; R - Rare; HYB - Hybrid, no status assigned								

Appendix 3

Significant Wildlife Habitat Assessment

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
1	Waterfowl Stopover and Staging Areas (terrestrial)	Seasonal concentration areas of animals	- Fields with Sheet water in spring (incl. agricultural)	- Mixed species aggregations of 100 or more individuals confirms SWH	Flooded field ecosite and 100-300m radius is the SWH	No habitat matching criteria identified in the Servicing Area.	No	None required.	No
2	Waterfowl Stopover and Staging (Aquatic)	Seasonal concentration areas of animals	- Ponds, marshes, lakes, bays, coastal inlets and watercourses and reservoirs - SWTP & SWMP are not SWH	- Aggregations of 100 or more listed species for 7 days (i.e., >700 waterfowl use days) confirms SWH	Aquatic ecosite and 100m radius is the SWH	No habitat matching criteria identified in the Servicing Area.	No	None required.	No
3	Shorebird Migratory stopover	Seasonal concentration areas of animals	- Shorelines of Lakes, rivers, wetlands, beaches, bars; seasonally flooded, muddy, and un-vegetated shoreline habitat	- 3 or more listed species and >1000 shorebird use days, or >100 whimbrel, confirms SWH	Shoreline ecosite and 100m radius is the SWH	No habitat matching criteria identified in Study Area, >5km from any Lake Ontario	No	None required.	No
4	Raptor Wintering Area	Seasonal concentration areas of animals	- Combination of upland field and woodland habitat >20ha total (includes, >15ha upland field) - Least disturbed sites, idle, fallow or lightly grazed field/meadow best	- 1 or more Short-eared Owl, or at least 10 individuals and 2 listed species for a minimum of 20 days, and 3 of 5 years, confirms SWH	Ecosite communities (field and woodland) is the SWH	No habitat matching criteria identified in the Servicing Area. Upland meadow within the northern portion <15ha.	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
5	Bat Hibernacula	Seasonal concentration areas of animals	- Caves, mine shafts, underground foundations, karsts. - Buildings are not SWH	- All sites with confirmed hibernating bats, confirms SWH	Ecosite and 200m radius is the SWH	No habitat matching criteria identified in the Servicing Area.	No	None required	No
6	Bat Maternity Colony	Seasonal concentration areas of animals	- All forested ecosites, FOD, FOM, SWD, SWM with >10/ha trees (>10cm DBH) in early stages of decay (class 1-3) - Buildings are not SWH	- >10 Big Brown Bats	Entire woodland or forest stand ELC ecosite containing colony is the SWH	Forested ecosites present in Study area with trees >10cm DBH.	Yes	Studies recommended pre-construction in areas where tree removal/damage to occur in candidate habitat.	Unknown
7	Turtle Wintering Area	Seasonal concentration areas of animals	- Areas with permanent water deep enough not to freeze, with mud/soft substrates	- 5 over-wintering Midland Painted Turtles, 1 or more Northern Map Turtle or Snapping Turtle confirms SWH	Mapped ELC ecosite, or deep pool element where turtles overwinter is the SWH	No habitat matching criteria identified within the Servicing Area.	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
8	Reptile Hibernaculum	Seasonal concentration areas of animals	- Sites below the frost line; rock barren, crevice and cave, talus, alvar, rock piles, slopes, stone fences, and crumbling foundations	- Presence of hibernacula with minimum 5 individuals of 1 snake species/ individuals of 2 or more species confirms SWH. - Congregations of a minimum of 5 snakes of 1 species/ individuals of 2 or more snake species, near potential hibernacula on sunny warm days in spring and fall confirms SWH	Feature hibernacula is in, and 30m radius is the SWH	No habitat matching criteria identified within the Servicing Area.	No	None required.	No
9	Colonially-nesting Bird Habitat (Cliff/bank)	Seasonal concentration areas of animals	- Eroding banks, sandy hills, borrow pits, steep slopes, sand piles, cliff faces, bridge abutments, silos, barns	- 1 or more nest sites with 8 or more Cliff Swallow or, 50 Bank Swallow and Rough-winged Swallow pairs during the breeding season.	Colony and 50m radius around peripheral nest are the SWH	No habitat matching criteria identified in Study Area	No	None required	No
10	Colonially-nesting Bird Habitat (Tree/shrub)	Seasonal concentration areas of animals	- Live or dead standing trees in wetlands, lakes, islands and peninsulas, occasionally shrubby and emergent vegetation	- 5 or more active Great-blue Heron or other listed species nests	Edge of the colony plus minimum 300m radius, or extent of the forest ecosite, or entire island <15ha is the SWH	No habitat matching criteria identified in Study Area	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
11	Colonially-nesting Bird Habitat (Ground)	Seasonal concentration areas of animals	- Rocky islands or peninsulas within a lake or large river (natural or artificial)	- >25 active nests of Herring Gull, Ring-billed Gull, >5 active nests of Common Tern, or >2 active nests of Caspian Tern. 5 or more pairs of Brewer's Blackbird. Any active nesting colony of Little Gull, Great Black-backed Gull.	Edge of colony plus min 150m radius or extent of ELC ecosite, or island <3ha is the SWH	No habitat matching criteria identified in Study Area	No	None required	No
12	Migratory Butterfly Stopover Area	Seasonal concentration areas of animals	- At least 10ha, with undisturbed field/meadow and forest or woodland edge habitat present, within 5km of Lake Ontario.	- Presence of Monarch use days >5000 or >3000 where there is a mix of Monarch with Painted Ladies or White Admirals	Field/meadow and forest/woodland is the SWH	No habitat matching criteria identified in Study Area, >5km from Lake Ontario	No	None required.	No
13	Land bird Migratory Stopover Area	Seasonal concentration areas of animals	- Woodlots >5ha in size within 5km of Lake Ontario	- Use by >200 birds/day, with >35species, with at least 10sp recorded on 5 different survey dates.	Woodlot is the SWH	No habitat matching criteria identified in Study Area, >5km from Lake Ontario	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
14	Deer Winter Congregation Areas	Seasonal concentration areas of animals	- All forested ecosites >100ha - Conifer Plantations <50ha may be used	- Deer management is the responsibility of the MNRF. - Contact MNRF or LIO for known deer winter areas.	LIO mapping	Deer Wintering Area (Stratum 2) is present within the Black Creek PSW along the northern limit of the pumping station study area and servicing area.	Yes	None required.	Yes
15	Cliffs & Talus Slopes	Rare vegetation communities	- Cliff: vertical to near vertical bedrock >3m in height - Talus slope: rock rubble at the base of a cliff made up of coarse rocky debris	- Confirm any ELC Vegetation Type for Cliffs or Talus Slopes	Area of ELC sites: TAO, TAS, TAT, CLO, CLS, CLT	No habitat matching criteria identified in Study Area	No	None required	No
16	Sand Barren	Rare vegetation communities	- Exposed, sparsely vegetated & caused by lack of moisture, fires, and erosion.	- Area >0.5ha in size - Confirm any ELC vegetation Type for Sand Barren - Not dominated by exotic or introduced species	Area of ELC ecosite is the SWH	No habitat matching criteria identified in Study Area	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
17	Alvar	Rare vegetation communities	- Level, mostly unfractured calcareous bedrock feature, overlain by a thin veneer or soil	- Area >0.5ha in size - Field Studies that identify four of the five Alvar Indicator Species - Not dominated by exotic or introduced species	Area of ELC ecosite is the SWH	No habitat matching criteria identified in Study Area	No	None required	No
18	Old Growth Forest	Rare vegetation communities	- >30ha forests with at least 10ha interior habitat and multi-layered canopy	- Dominant Tree Species >140 years old - No recognizable signs forestry practices (old stumps)	Area of ELC ecosite is the SWH	No habitat matching criteria identified in Study Area	No	None required	No
19	Savannah	Rare vegetation communities	- Tall Grass Prairie Habitat with 25%-60% Tree cover - Remnant sites such as Railway Right of ways are not SWH	- No minimum size and must be restored to a natural state. - Confirm one or more savannah indicator species. - Not dominated by exotic or introduced species	Area of ELC ecosite is the SWH	No habitat matching criteria identified in Study Area	No	None required	No
20	Tallgrass Prairie	Rare vegetation communities	- Ground cover dominated by prairie grasses with <25% tree cover. - Remnant sites such as Railway Right of ways are not SWH	- No minimum size and must be restored to a natural state. - Confirm one or more prairie indicator species. - Not dominated by exotic or introduced species	Area of ELC ecosite is the SWH	No habitat matching criteria identified in Study Area	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
21	Other Rare Vegetation Communities	Rare vegetation communities	- All Provincially Rare S1, S2, S3 Vegetation Communities (Appendix M of SWHTG)	- Field Studies Confirming ELC vegetation type is a rare vegetation community	Area of ELC ecosite is the SWH	No communities identified in the pumping station study area are S1-S3 communities	No	None required	No
22	Waterfowl Nesting Areas	Specialized habitat for wildlife	- Upland Habitat, adjacent to Wetland ELC ecosites (except SWC, SWM) - Extends 120m from a wetland (>0.5ha) and any small wetlands (<0.5ha) within a cluster of at least 3 - Upland area at least 120m wide	- Presence of 3 or more nesting pairs of listed species excluding Mallards - Presence of 10 or more nesting pairs including mallards - Any active Black Duck nesting site	SWH may be greater than or less than 120m from the wetland edge and must provide enough habitat for waterfowl to successfully nest	No habitat matching criteria identified in the servicing area	No	None required	No
23	Bald Eagle or Osprey Nesting, Foraging and Perching Habitat	Specialized habitat for wildlife	- Forest communities adjacent to riparian areas - Osprey nests usually at top of tree - Bald Eagle nest usually in super canopy tree in a notch within canopy	- Studies confirm one or more active Bald Eagle or Osprey nest. - Alternate nests included in SWH. - Nests must be used annually, if found inactive, must be known inactive at least 3 years, or suspected unused for 5 years if unknown	- Active nest plus 300m for Osprey - Active nest plus 400-800m for Bald Eagle	No habitat matching criteria identified in the servicing area.	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
24	Woodland Raptor Nesting Habitat	Specialized habitat for wildlife	- Forested communities, forested swamp communities and cultural Plantations - Natural Forested/conifer plantations >30ha with >10ha interior habitat (200m buffer)	- One or more active nest of listed species	Nest protection radius: - RSHA NOGA 400m - BAOW 200m. - BWHA, COHA 100m - SSHA 50	No forested communities >30ha within the servicing area.	No	None required.	No
25	Turtle Nesting Areas	Specialized habitat for wildlife	- Exposed Mineral soil (sand or gravel) adjacent (<100m) or within shallow marsh, shallow submerged, shallow floating, bog or fen communities. - Located in open sunny areas, away from roads and less prone to predation - Municipal and provincial road shoulders are not SWH.	- Confirm 5 or more nesting Midland Painted Turtles, 1 or more nesting Northern Map Turtle or Snapping Turtle	Area or sites with exposed mineral soils, plus a radius of 30-100m around the nesting area is the SWH.	No habitat matching criteria identified in Study Area	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
26	Seeps and Springs	Specialized habitat for wildlife	- Areas where ground water comes to the surface. - Any forested area within the headwaters of a stream or river system	- Confirm site with 2 or more seeps/springs. -	Area of ELC forest ecosite containing seep/spring is the SWH	Seeps and springs possible within forested and wetland communities	Yes	ELC complete	No seeps or springs identified. Access restricted to majority of communities.
27	Amphibian Breeding Habitat (Woodland)	Specialized habitat for wildlife	- Breeding pools within woodlands - Wetland, pond or pool >500m² within or adjacent (<120m) to a woodland. - Woodlands with permanent ponds, or those with water until mid-July more likely to be used.	- Confirm Breeding population of 1 or more listed newt/salamander species, 2 or more of the listed frog species with at least 20 individuals (adults or egg masses), 2 or more of the listed frog species with call code levels of 3. - Wetland adjacent to woodlands includes travel corridor connecting features as SWH.	Wetland area, plus 230m radius of woodland is the SWH.	Candidate habitat within the Deciduous Swamp in the northern portion of the pumping station study area and servicing area.	Yes	Amphibian surveys may be required.	Unknown.

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
28	Amphibian Breeding Habitat (Wetland)	Specialized habitat for wildlife	- Swamp, marsh, fen, bog, open aquatic and shallow aquatic ELC communities. - Typically isolated from woodlands (>120m), but includes larger wetlands with primarily aquatic species (bull frogs) that are adjacent to woodlands. - Wetlands >500m² - Presence of shrubs & logs - Bullfrogs require permanent water bodies and abundant emergent vegetation.	- Confirm Breeding populations of 1 or more listed newt/salamander species, or 2 or more listed frog/toad species with at least 20 individuals (adults or egg masses), or 2 or more listed frog/toad species with a call code level of 3 - Or any wetland with confirmed breeding Bullfrog.	ELC ecosite and shoreline is the SWH. Movement corridors (SWH) must be considered if this habitat is significant	No wetlands >120m from woodland habitat	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
29	Woodland Area-sensitive Breeding Bird Habitat	Specialized habitat for wildlife	- Habitats where interior breeding birds are breeding. - Large mature (>60 years) forest stands or woodlots >30ha - Forest and swamp ELC communities - Interior habitat at least 200m from edge	- Presence of nesting or breeding pairs of 3 or more of the listed species - Any site with Cerulean Warbler or Canada Warbler is SWH -	ELC ecosite is the SWH	No interior habitat (>200m) identified in servicing area	No	None required	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
30	Marsh Bird Breeding Habitat	Habitats of species of conservation concern considered SWH	- Some meadow marsh, shallows submerged, shallow floating, mixed shallow floating, fen and bog communities (see SWH Ecoregion guide for specifics) - Nesting occurs in wetlands; all wetland habitat is considered with presence of shallow water with emergent aquatic vegetation - Green heron at edge of water sheltered by shrubs and trees.	- 5 or more nesting pairs of Sedge Wren or Marsh Wren, 1 pair of Sandhill Crane, or breeding by any combination of 5 or more of the listed species. - Any Wetland with 1 or more breeding pair Black Tern, Trumpeter Swan, Green Heron, or Yellow Rail	ELC ecosite is the SWH	No habitat matching criteria identified in the servicing area.	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
31	Open Country Bird Breeding Habitat	Habitats of species of conservation concern considered SWH	- Grassland area >30ha (natural & cultural fields and meadows) - Grasslands not class 1 or 2 agriculture (no row crops or intensive hay or livestock pasturing) - Mature hayfields or pasture at least 5 years old	- Nesting or breeding of 2 or more of the listed species. - Field with 1 or more Short-eared Owls	Contiguous ELC ecosite is the SWH	No grassland habitat >30ha within the servicing area.	No	None required.	No
32	Shrub/Early Successional Bird Breeding Habitat	Habitats of species of conservation concern considered SWH	- Cultural thickets, savannah, and woodland habitat - Large field area succeeding to shrub and thicket habitat >10ha in size. - Patches of shrub ecosite may be complexed into larger old field ecosites for some species	- Confirm nesting or breeding of 1 of the listed indicator species and at least 2 of the common species. - Habitat with Yellow-breasted Chat Or Golden-winged Warbler is SWH	SWH is contiguous ELC ecosite field/thicket area	No cultural thicket or savannah community present within the servicing area.	No	None required.	No

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
33	Terrestrial Crayfish	Habitats of species of conservation concern considered SWH	- Meadow marsh, shallow marsh, swamp thicket, deciduous swamp, and mixed swamp communities - Cultural meadow with inclusions of meadow marsh may be used. - Wet edges of marshes and wet meadows should be surveyed for crayfish	- Presence of 1 or more individuals of listed species or their chimneys in suitable habitat	Area of ELC ecosite or Eco element area of meadow marsh or swamp within the larger ecosite area is the SWH	Candidate habitat identified in study area.	Yes	Incidental observation during ELC conducted	Unknown. Access to Deciduous Swamp restricted.

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
34	Special Concern & Rare Wildlife Species	Habitats of species of conservation concern considered SWH	- All Special concern and Provincially Rare plant and animal species - Where an element occurrence is identified within a 1 or 10km grid for a species listed, linking candidate habitat on the site must be completed to ELC ecosites	- Assessment/inventory of site for identified special concern or rare species completed during time of year when species is present or easily identifiable. - Habitat must be easily mapped and cover an important life stage component (specific nesting habitat, foraging)	SWH is the finest ELC scale that protects the form and function of the habitat	No element occurrences for Special Concern or rare Wildlife Species identified within 1km of the study area Background Atlas review identified 8 Special concern species within 10km of the Study Area - Grass Pickerel - Northern Sunfish - Wood Thrush - Barn Swallow - Eastern Wood-pewee - Snapping Turtle - West Virginia White - Monarch	Yes-Meadow communities containing Milkweed may provide suitable habitat for Monarch.	One-season Botanical Inventory and Breeding Bird Survey may be required.	Unknown

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
35	Amphibian Movement Corridor	Animal movement corridors	- Corridors may occur in all ecosites associated with water. - Presence of significant amphibian breeding indicates the requirement for identifying corridors. - Movement corridors between breeding habitat and summer habitat	- Corridors typically include areas with native vegetation, with several layers of vegetation, unbroken by roads, waterways or waterbodies are most significant. - At least 15 of vegetation on both sides of the waterway or up to 200m wide of woodland habitat with gaps of <20m - Shorter corridors are more significant than longer, but amphibians must be able to get to and from their summer breeding habitat	Corridor is the SWH	The deciduous swamp community within the servicing area may provide suitable amphibian breeding habitat.	Yes	Amphibian call surveys may be required.	Unknown

#	Significant wildlife habitat (SWH)	Candidate SWH type	Candidate SWH criteria	Criteria for SWH confirmation	SWH protected area	Site assessment details	Candidate SWH	Field studies required/ completed	Confirmed SWH
36	Bat Migratory Stopover Area (7E-2 only)	Animal movement corridors	- No Specific ELC types - Long distance migratory bats typically migrate during late summer and early fall from summer breeding habitats throughout Ontario to southern wintering areas. Their annual fall migration may concentrate these species of bats at stopover areas.	- The confirmation criteria and habitat areas for this SWH are still being determined. - Long Point (42°35'N, 80°30'E, to 42°33'N, 80°03'E) has been identified as a significant stop-over habitat for fall migrating Silver-haired Bats, due to significant increases in abundance, activity and feeding that was documented during fall migration ccxv	The confirmation criteria and habitat areas for this SWH are still being determined.	N/A. Servicing Area is within 7E-5.	N/A	N/A	N/A

Appendix 4

SAR & Species of Conservation Concern Habitat Assessment

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Pumping Station Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Fowler's Toad	<i>Anaxyrus fowleri</i>	Amphibians	END	END	END	S2	ORAA (2009)	Occur along the Lake Erie shoreline where there are well-drained sandy soils or sand dunes, sandy beaches, sandy deciduous woodland, and rocky, poor vegetated areas. Eggs and tadpoles require sparsely vegetated ponds, sandy bottomed pools, shallow rocky shoals or rocky pools (COSEWIC, 2010)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No amphibian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location or study area.	No further studies recommended.	None observed.
Bobolink	<i>Dolichonyx oryzivorus</i>	Birds	THR	THR	SC	S3B	NHIC OBBA eBird (2021)	Nest in grassland habitats, including hayfields and meadows with a mixture of grasses and broad-leaved forbs with a high litter cover. Area Sensitive, with increased density in grasslands greater than 10ha (Renfrew et. al. 2015)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	Meadow communities within the study area may provide suitable direct habitat.	Yes.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location or study area.	Grassland Bird Surveys may be required for larger servicing area.	None observed.
Chimney Swift	<i>Chaetura pelagica</i>	Birds	THR	THR	THR	S3B	OBBA eBird (2017)	Typically nests in traditional chimneys of older buildings, which also provide roosting sites for many individuals during spring and fall migration (MNRF 2013).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in project area or study area.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Pumping Station Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Eastern Meadowlark	<i>Sturnella magna</i>	Birds	THR	THR	THR	S4B	NHIC OBBA	Nest in grassland habitats, including hayfields, pasture, savannahs, and other open areas. Preferential habitat includes areas with good grass and thatch (litter) cover (Jaster et. al. 2012).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area. Meadow communities in larger servicing area may provide suitable direct habitat.	Yes.	Medium- Direct habitat may be present within the larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location or study area	Grassland Bird Surveys may be required for larger servicing area.	None observed.
Lesser Yellowlegs	<i>Tringa flavipes</i>	Birds	THR	NL	THR	S4B	eBird (2021) iNat (2021)	Nests on dry ground near peatlands, marshes, ponds, and other wetlands in the boreal forest and taiga. In winter and during migration, the species frequents coastal salt marshes, estuaries and ponds, as well as lakes, other freshwater wetlands, and anthropogenic wetlands such as flooded rice fields and sewage lagoons (COSEWIC 2020).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location or study area	No further studies recommended.	None observed.
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Birds	END	END	END	S3S4B	NHIC OBBA NPCA	Found in a variety of open areas, with a high density of dead or dying trees, particularly forests dominated by oak or beech (COSEWIC 2007d).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	The deciduous swamp community within the study area may provide suitable direct habitat.	Yes.	Medium- Direct habitat may be present within the study area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location. Feature identified as a PSW.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Pumping Station Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Short-eared Owl	<i>Asio flammeus</i>	Birds	THR	SC	SC	S2N, S4B	NPCA	Breeds in open habitats, including grasslands, old pasture marshes, bogs, and sand-sage. Nests are scrapes, located on the ground (COSEWIC 2008c)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Medium- Direct habitat may be present within the larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	Breeding Bird Surveys may be required for larger servicing area.	None observed.
Yellow-breasted Chat	<i>Icteria virens</i>	Birds	END	END	END	S4B	NHIC OBBA eBird (2021)	Shrub specialist, nesting in early successional, dense, low-shrub habitat, including old fields, hydro-cutovers and forest edges experiencing regeneration (COSEWIC 2011c).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No avian surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Medium- Direct habitat may be present within the larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location or study area	Breeding Bird Surveys may be required for larger servicing area.	None observed.
Lake Sturgeon (Great Lakes- Upper St. Lawrence River)	<i>Acipenser fulvescens pop. 3</i>	Fish	THR	NL	THR	S2	NHIC	Spawning- Require large-river mainstems with hydraulic features causing water velocities between 0.1-2.1m/s. Juvenile/Adult- larger rivers and lakes with shallow habitats similar to littoral zones (COSEWIC 2017)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys. No aquatic surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location or study area	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Pumping Station Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Eastern Red Bat	<i>Lasiurus borealis</i>	Mammals	END	NL	END	S4	N/A	Typically roosts among the foliage of trees and occasionally shrubs. They use both deciduous and coniferous forests of any age class, but in some parts of their range will avoid conifer species when suitable deciduous species are present. Trees used as maternity roosts tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. They forage in both forested and non-forested habitats, in both open and semi-cluttered habitats, both above and below forest canopies, and in both early and later stage forests (COSEWIC 2023).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.
Eastern Small-footed Myotis	<i>Myotis leibii</i>	Mammals	END	END	NA	S2	N/A	Associated with hilly or mountainous terrain, in or near coniferous or deciduous forest habitat. Maternity roosts located in cracks and crevices of talus slopes and rocky outcrops, or, occasionally in bridges, old buildings, hollow trees (or loose bark) and caves and mines during the maternity season. Hibernates singly or in small clusters in mines and caves (NatureServe, 2015).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Pumping Station Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Hoary Bat	<i>Lasiurus cinereus</i>	Mammals	END	NL	END	S4	N/A	Roosts solitarily in trees, with preferences including maple, oak, ash, elder, hemlock, and redwood trees. Typically roosts among the foliage of trees and occasionally shrubs, and use both deciduous and coniferous forests, of any age class. Trees used as maternity roosts tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. Forages in the open, and suitable habitats may include wetlands, grasslands and open fields with patchily distributed trees (COSEWIC 2023).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.
Little Brown Myotis	<i>Myotis lucifugus</i>	Mammals	END	END	END	S1	N/A	Hibernate in Caves; maternity colonies located in warm sites, often associated with human habitation; including attics, old buildings, under bridges, rock crevices and cavities in canopy trees in wooded areas (COSEWIC, 2013c).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.
Northern Myotis	<i>Myotis septentrionalis</i>	Mammals	END	END	END	S3	N/A	Hibernate in Caves; maternity colonies usually located in trees, and are closely associated with specific tree characteristics and density of suitable trees. Characterized by tall, large diameter trees in early stages of decay, located in openings in mature forest canopies (COSEWIC, 2013c).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.

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Silver-haired Bat	<i>Lasionycteris noctivagans</i>	Mammals	END	NL	END	S3	N/A	Roosting occurs primarily under bark and in the cavities of trees, making them reliant on habitats where large, decaying trees are available. Roosts in a variety of large diameter coniferous and deciduous trees. Deciduous species (especially <i>Populus</i> spp.) often have decay characteristics that make them ideal as roost sites, particularly in older forests where these features are more likely to occur. Heart-rot infections at the site of limb breakages often result in large well-protected inner chambers and large sheets of exfoliating bark are ideal for roosting. In other parts of their range, coniferous species are used. Several studies report the frequent use of old woodpecker cavities (COSEWIC 2023).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.
Tri-colored Bat	<i>Perimyotis subflavus</i>	Mammals	END	END	END	S3	N/A	Hibernate in caves, abandoned mines, wells, and tunnels. Summer roosts include clumps of dead foliage and lichens, typically found in forested habitat close to water sources. May also use anthropogenic structures such as barns for maternity roosts. Foraging habitat includes forested riparian areas over water in relatively open areas (Environment Canada 2015).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location	Direct suitable habitat may be present in the Oak Mineral Deciduous swamp within the study area.	No.	Medium- Direct habitat may be present within the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in the pumping station location.	Bat Maternity Habitat surveys may be required for the larger servicing area.	None observed.

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Blanding's Turtle	<i>Emydoidea blandingii</i>	Reptiles	THR	END	END	S3?	ORAA (1976)	Use a variety of eutrophic wetland habitat types, including lakes, ponds, watercourses, marshes, man-made channels, farm fields, coastal areas and bays. Seasonal overland terrestrial movements up to 2.5 km occur to reach nesting and overwintering areas, generally through wooded coniferous or mixed forest habitat. Nests are usually laid in loose sand or organic soil (COSEWIC 2005b).	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No recent observations. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location or study area	No further studies recommended.	None observed.
False Hop Sedge	<i>Carex lupuliformis</i>	Vascular plants	END	END	END	S1	NPCA	Associated with a variety of relatively open wetland habitats subject to periodic flooding. Known habitats consist mostly of small temporary forest ponds or marshes isolated in swamps (COSEWIC 2011)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location or study area	No further studies recommended.	None observed.
Small White Lady's-slipper	<i>Cypripedium candidum</i>	Vascular plants	END	THR	THR	S1	NPCA	Grows in remnant fragments of moist, calcareous native prairie openings. This includes patches of prairie remnants in roadside ditches surrounded by agricultural fields (COSEWIC 2014)	Pumping Station Study Area was investigated for habitat during ELC and Vegetation Surveys.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location or study area	No further studies recommended.	None observed.

Background Source References:
OBBA: Cadman, M.D.,D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier. 2007. The Atlas of the Breeding Birds Ontario 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto,xxii + 706pp.
(Available online here:<http://www.birdsontario.org/atlas/datasummaries.jsp>)
OBAO: Colin Jones, Ross Layberry, and Alan Macnaughton. Ontario Butterfly Atlas Online. (Available online here: Toronto Entomologists' Association: http://www.ontarioinsects.org/atlas_online.htm)
OMA: Dobbyn, J. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists, Altona Manitoba, Canada. (Available online here: <http://www.ontarionature.org/discover/resources/publications.php>)
NHIC: NHIC, 2023. MNRf Make a map: Natural Heritage Areas. (Available online: <http://www.ontario.ca/environment-and-energy/make-natural-heritage-area-map>)
ORAA: Ontario Nature. 2023. Ontario Reptile and Amphibian Atlas: a citizen science project to map the distribution of Ontario’s reptiles and amphibians. Ontario Nature, Ontario. (Available online here: <http://www.ontarionature.org/atlas>)
iNat: iNaturalist. 2023. (Available online: <https://www.inaturalist.org/observations>)
Ebird: eBird. 2023. (Available online: <https://ebird.org/explore>)
NPCA: Obtained through correspondence provided by NPCA (dated: August 24, 2023)

Species Habitat Requirement References:

Scientific name	References
<i>Anaxyrus fowleri</i>	COSEWIC. 2010. COSEWIC assessment and status report on the Fowler's Toad (<i>Anaxyrus fowleri</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 58 pp.
<i>Chaetura pelagica</i>	MNRF, 2013. General Habitat Description for the Chimney Swift (<i>Chaetura pelagica</i>). Ontario Ministry of Natural Resources and Forestry. July 2, 2013.
<i>Sturnella magna</i>	Jaster, Levi A., William E. Jensen and Wesley E. Lanyon. (2012). Eastern Meadowlark (<i>Sturnella magna</i>), The Birds of North America (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: https://birdsna.org/Species-Account/bna/species/easmea
<i>Tringa flavipes</i>	COSEWIC. 2020. COSEWIC assessment and status report on the Lesser Yellowlegs (<i>Tringa flavipes</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 64 pp.
<i>Melanerpes erythrocephalus</i>	COSEWIC 2007. COSEWIC assessment and update status report on the Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 27 pp.
<i>Icteria virens</i>	COSEWIC. 2011. COSEWIC assessment and status report on the Yellow-breasted Chat <i>auricollis</i> subspecies (<i>Icteria virens auricollis</i>) and the Yellow-breasted Chat <i>virens</i> subspecies (<i>Icteria virens virens</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xvi + 51 pp.
<i>Emydoidea blandingii</i>	COSEWIC 2005. COSEWIC assessment and update status report on the Blanding's Turtle (<i>Emydoidea blandingii</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. viii + 40 pp.
<i>Carex lupuliformis</i>	COSEWIC. 2011. COSEWIC assessment and status report on the False Hop Sedge (<i>Carex lupuliformis</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 35 pp.
<i>Cypripedium candidum</i>	COSEWIC. 2014. COSEWIC assessment and status report on the Small White Lady's-slipper (<i>Cypripedium candidum</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 48 pp.
<i>Lasiurus borealis</i>	COSEWIC. 2023. COSEWIC assessment and status report on the Hoary Bat <i>Lasiurus cinereus</i> , Eastern Red Bat <i>Lasiurus borealis</i> and Silver-haired Bat, <i>Lasionycteris noctivagans</i> , in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxi + 100 pp. (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html).
<i>Myotis leibii</i>	COSEWIC. 2013. COSEWIC assessment and status report on the Little Brown Myotis (<i>Myotis lucifugus</i>), Northern Myotis (<i>Myotis septentrionalis</i>) and Tri-colored Bat (<i>Perimyotis subflavus</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp.
<i>Lasiurus cinereus</i>	COSEWIC. 2023. COSEWIC assessment and status report on the Hoary Bat <i>Lasiurus cinereus</i> , Eastern Red Bat <i>Lasiurus borealis</i> and Silver-haired Bat, <i>Lasionycteris noctivagans</i> , in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxi + 100 pp. (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html).
<i>Myotis lucifugus</i>	COSEWIC. 2013. COSEWIC assessment and status report on the Little Brown Myotis (<i>Myotis lucifugus</i>), Northern Myotis (<i>Myotis septentrionalis</i>) and Tri-colored Bat (<i>Perimyotis subflavus</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp.
<i>Myotis septentrionalis</i>	COSEWIC. 2013. COSEWIC assessment and status report on the Little Brown Myotis (<i>Myotis lucifugus</i>), Northern Myotis (<i>Myotis septentrionalis</i>) and Tri-colored Bat (<i>Perimyotis subflavus</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp.
<i>Lasionycteris noctivagans</i>	COSEWIC. 2023. COSEWIC assessment and status report on the Hoary Bat <i>Lasiurus cinereus</i> , Eastern Red Bat <i>Lasiurus borealis</i> and Silver-haired Bat, <i>Lasionycteris noctivagans</i> , in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxi + 100 pp. (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html).
<i>Perimyotis subflavus</i>	Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (<i>Myotis lucifugus</i>), Northern Myotis (<i>Myotis septentrionalis</i>), and Tri-colored Bat (<i>Perimyotis subflavus</i>) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp

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Monarch	<i>Danaus plexippus</i>	Butterflies, bees, damselflies, dragonflies & insects	SC	END	END	S2	OBA (2022)	Breeding habitat is confined to areas occupied by native Milkweed plants. Common Milkweed (<i>Asclepias syriaca</i>) is the principle larval foodplant (COSEWIC 2010b).	The pumping station study area was investigated for habitat during ELC and vegetation surveys.	No suitable direct habitat identified in pumping station location.	The mixed meadow community in the study area may provide suitable direct habitat.	Yes	Medium- Direct habitat may be present within the Mixed Meadow community in the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
West Virginia White	<i>Pieris virginensis</i>	Butterflies, bees, damselflies, dragonflies & insects	SC	NL	NAR	SH	NPCA	Adults exclusively lay eggs on ephemeral wildflowers belonging to the Mustard family, specifically Two-leaved Toothwort (<i>Cardamine diphylla</i>) or Cut-leaved Toothwort in southern Ontario. Two-leaved and Cut-leaved Toothwort are found in moist Hardwood and Mixed Forests (Burke 2013).	The pumping station study area was investigated for habitat during ELC and vegetation surveys.	No suitable direct habitat identified in pumping station location.	The deciduous swamp may provide suitable direct habitat.	Yes.	Medium- Direct habitat may be present within the Deciduous Swamp community in the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Barn Swallow	<i>Hirundo rustica</i>	Birds	SC	THR	SC	S4B	NHIC OBBA NPCA eBird (2021)	Natural nesting locations including caves, holes, crevices and ledges associated with rocky cliff faces. Nesting is also known to occur on/within artificial surfaces with overhang providing shelter. Commonly within outbuildings, bridges and culverts (COSEWIC 2011a).	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No avian surveys were completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Medium- Direct habitat may be present within the larger servicing area due to the presence of rural outbuildings.	No- No direct suitable habitat identified in pumping station location.	Breeding Bird surveys may be required.	None observed.

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Eastern Wood-Pewee	<i>Contopus virens</i>	Birds	SC	SC	SC	S4B	NHIC OBBA eBird (2021)	Require mature and intermediate age deciduous and mixed forests dominated by Maple, Elm or Oak with forest clearings (COSEWIC 2012a).	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No avian surveys were completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Tufted Titmouse	<i>Baeolophus bicolor</i>	Birds	NL	NL	NL	S3	NHIC	Requires mature deciduous or mixed forests with tall trees, dense canopy and wide variety of tree species typically associated with riparian corridors (Wisconsin Birds, 2013)	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No avian surveys were completed.	No suitable direct habitat identified in pumping station location.	The deciduous swamp within the study area may provide suitable direct habitat.	Yes	Medium- Direct habitat may be present within the Deciduous Swamp community in the study area and larger servicing area. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Wood Thrush	<i>Hylocichla mustelina</i>	Birds	SC	THR	THR	S2N, S4B	NHIC NPCA	Requires moist deciduous or mixed stands with dense deciduous undergrowth. Nesting sites contain trees >16m in height, a closed canopy, high variety of deciduous tree species, shade, open forest floor, moist soil and decaying leaf litter (COSEWIC 2012b).	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No avian surveys were completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Project Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Grass Pickerel	<i>Esox americanus vermiculatus</i>	Fish	SC	SC	SC	S2	NHIC DFO NPCA	Requires shallow, heavily vegetated, slow moving, lowland streams with mud or muck bottoms and clear-to tea-coloured water that is mildly alkaline to slightly acidic. (COSEWIC 2005)	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No aquatic surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Greater Redhorse	<i>Moxostoma valenciennesi</i>	Fish	NL	NL	NL	S3	NHIC NPCA	Moderate to fast-flowing, medium to large-sized rivers. Prefers clear water with substrates of clean gravel, sand or boulders. Cannot tolerate siltation (Natureserve, 2023)	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No aquatic surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Northern Sunfish (Great Lakes- Upper St. Lawrence Population)	<i>Lepomis peltastes</i>	Fish	SC	SC	SC	S1	DFO NPCA	Requires shallow areas of warm lakes, ponds and watercourses with little current and clear waters without turbidity or siltation. (COSEWIC 2016)	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No aquatic surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Project Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Wabash Pigtoe	<i>Fusconaia flava</i>	Molluscs	NL	NL	NL	S2S3	NPCA	Found in medium and large-sized rivers at depths up to 15 ft. Prefers substrates of coarse sand and gravel (NatureServe, 2023)	The pumping station study area was investigated for habitat during ELC and vegetation surveys. No aquatic surveys completed.	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes.	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	Reptiles	NL	SC	SC	S3	ORAA (2017) iNat (2023)	Active Season: Require slow moving, relatively shallow and well-vegetated wetlands and waterbodies with abundant basking sites and organic substrate. Nesting: Require areas with open canopy, such as shorelines, beaver dams and sand dunes with substrates including sand, loam, clay, and/or gravel. Overwintering: Require wetlands and/or shallow bays of lakes (COSEWIC 2018).	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Snapping Turtle	<i>Chelydra serpentina</i>	Reptiles	SC	SC	SC	S4	NHIC ORAA (2017) NPCA iNat (2022)	Requires ponds, sloughs, shallow bays or river edges and slow streams. Nesting requires sand or gravel substrate typically found along waterways, embankments, road shoulders or forest clearings. (COSEWIC 2008d).	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Project Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Milksnake	<i>Lampropeltis triangulum</i>	Reptiles	NL	SC	SC	S4	NHIC ORAA (2019)	Habitat generalists often associated with edge habitat, meadows, prairies, pastures, rocky outcrops and human disturbances such as hydro corridors and railway embankments. Habitat is usually close to a water source. Hibernation occurs in a variety of natural and man-made features, including rotting logs, old foundations, basements and burrows (COSEWIC 2014).	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	The meadow communities along forest edges within the study area may provide direct suitable habitat.	Yes	Medium- Direct habitat may be present within the study area and larger servicing area due to the presence of meadow and forest edge. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Black Gum	<i>Nyssa sylvatica</i>	Vascular Plants	NL	NL	NL	S3	NHIC NPCA	Requires low, wet ground along streams or in swamps. Moderately shade tolerant (Canadian Forest Service, 2023)	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	The deciduous swamp community in the study area may provide direct suitable habitat.	Yes	Medium- Direct habitat may be present within the study area and larger servicing area due to the presence of the deciduous swamp. Unable to complete surveys to determine habitat suitability due to access restrictions.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.
Green Arrow Arum	<i>Peltandra virginica</i>	Vascular Plants	NL	NL	NL	S3	NHIC NPCA	Requires wet soil and aquatic communities. Commonly occurs along shallow waterways (Lady Bird Johnson Wildflower Center, 2025)	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.

Common name	Scientific name	Group	ESA	SARA	COSEWIC	S-rank	Observation sources (date)	Direct Habitat requirements	Field Studies Completed	ESA habitat present? Project Location	ESA habitat present? Study Area	Recent Observation within 10kms?	Potential to occur? (low, medium, high)	Activity is likely to impact species?	Additional studies?	Observed by AA
Kansas Hawthorn	<i>Crataegus coccinoides</i>	Vascular Plants	NL	NL	NL	S3	NPCA	Requires dry soils, usually on limestone bedrock. Occurs in forests, on forest edges, in meadows and fields (GoBotany, 2023).	The pumping station study area was investigated for habitat during ELC and vegetation surveys	No suitable direct habitat identified in pumping station location.	No suitable direct habitat identified in study area.	Yes	Low- No direct suitable habitat identified in pumping station location, study area or servicing area.	No- No direct suitable habitat identified in pumping station location.	No further studies recommended.	None observed.

Background Source References:

OBBA: Cadman, M.D.,D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier. 2007. The Atlas of the Breeding Birds Ontario 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto,xxii + 706pp.
(Available online here:<http://www.birdsontario.org/atlas/datasummaries.jsp>)

OBAO: Colin Jones, Ross Layberry, and Alan Macnaughton. Ontario Butterfly Atlas Online. (Available online here: Toronto Entomologists’ Association: http://www.ontarioinsects.org/atlas_online.htm)

OMA: Dobbyn, J. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists, Altona Manitoba, Canada. (Available online here: <http://www.ontarionature.org/discover/resources/publications.php>)

NHIC: NHIC, 2024. MNRf Make a map: Natural Heritage Areas. (Available online: <http://www.ontario.ca/environment-and-energy/make-natural-heritage-area-map>)

ORAA: Ontario Nature. 2024. Ontario Reptile and Amphibian Atlas: a citizen science project to map the distribution of Ontario’s reptiles and amphibians. Ontario Nature, Ontario. (Available online here: <http://www.ontarionature.org/atlas>)

iNat: iNaturalist. 2023. (Available online: <https://www.inaturalist.org/observations>)

Ebird: eBird. 2023. (Available online: <https://ebird.org/explore>)

NPCA: Obtained through correspondence provided by NPCA (dated: August 24, 2023)

Species Habitat Requirement References:

Scientific name	References
<i>Danaus plexippus</i>	COSEWIC. 2010. COSEWIC assessment and status report on the Monarch (<i>Danaus plexippus</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 43 pp.
<i>Pieris virginiensis</i>	Peter S. Burke. 2013. Management Plan for the West Virginia White (<i>Pieris virginiensis</i>) in Ontario. Ontario Management Plan Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. v + 44 pp.
<i>Hirundo rustica</i>	COSEWIC. 2011. COSEWIC assessment and status report on the Barn Swallow (<i>Hirundo rustica</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 37 pp.
<i>Contopus virens</i>	COSEWIC. 2012. COSEWIC assessment and status report on the Eastern Wood-Pewee (<i>Contopus virens</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 39 pp.
<i>Baeolophus bicolor</i>	Wisconsin Birds. 2013. Tufted Titmouse (<i>Baeolophus bicolor</i>). Available online: http://www.wisconsinbirds.org/plan/species/tuti.htm
<i>Hylocichla mustelina</i>	COSEWIC. 2012. COSEWIC assessment and status report on the Wood Thrush (<i>Hylocichla mustelina</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 46 pp.
<i>Esox americanus vermiculatus</i>	COSEWIC. 2005. COSEWIC assessment and status report on the Grass Pickerel (<i>Esox americanus</i>) <i>vermiculatus</i> in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 27 pp.
<i>Lepomis peltastes</i>	COSEWIC. 2016. COSEWIC assessment and status report on the Northern Sunfish (<i>Lepomis peltastes</i>) Saskatchewan- Nelson River populations and the Great Lakes- Upper St. Lawrence populations, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xv + 51 pp.
<i>Chrysemys picta marginata</i>	COSEWIC. 2018. COSEWIC assessment and status report on the Midland Painted Turtle (<i>Chrysemys picta marginata</i>) and the Eastern Painted Turtle (<i>Chrysemys picta picta</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xvi + 107 pp.
<i>Chelydra serpentina</i>	COSEWIC. 2008. COSEWIC assessment and status report on the Snapping Turtle (<i>Chelydra serpentina</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp.
<i>Lampropeltis triangulum</i>	COSEWIC. 2014. COSEWIC assessment and status report on the Eastern Milksnake (<i>Lampropeltis Triangulum</i>) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 61 pp.
<i>Nyssa sylvatica</i>	Canadian Forest Service. 2023. Black-gum. Available online: https://tidcf.nrcan.gc.ca/en/trees/factsheet/329
<i>Peltandra virginica</i>	Lady Bird Johnson Wildflower Center. 2025. Green Arrow Arum (<i>Peltandra virginica</i>). Available online: https://www.wildflower.org/plants/result.php?id_plant=pevi
<i>Crataegus coccinoides</i>	Go Botany. 2023. <i>Crataegus coccinoides</i> Kansas Hawthorn. Available online: https://gobotany.nativeplanttrust.org/species/crataegus/coccinoides/

Appendix 5

Background Wildlife List

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
	INSECTS												
iNat (2022)	Bald-faced Hornet	<i>Dolichovespula maculata</i>					S4		N5				
	BEES												
iNat (2021)	Common Eastern Bumble Bee	<i>Bombus impatiens</i>					S5						
	BUTTERFLIES & MOTHS												
OBA (2018)	Wild Indigo Duskywing	<i>Erynnis baptisiae</i>					S4	G5	N4				C
OBA (2022)	Juvenal's Duskywing	<i>Erynnis juvenalis</i>					S5	G5	N5				C
OBA (2022)	Hobomok Skipper	<i>Poanes hobomok</i>					S5	G5	N5				C
OBA (2020)	Peck's Skipper	<i>Polites peckius</i>					S5	G5	N5				C
OBA (1976)	American Copper	<i>Lycaena phlaeas</i>					S5	G5	N5				R
OBA (1976)	Acadian Hairstreak	<i>Satyrium acadica</i>					S4	G5	N5				R
OBA (1976)	Banded Hairstreak	<i>Satyrium calanus</i>					S4	G5	N4N5				C
OBA (1976)	Striped Hairstreak	<i>Satyrium liparops</i>					S5	G5	N5				UC
OBA (1976)	Coral Hairstreak	<i>Satyrium titus</i>					S5	G4G5	N5				R
OBA (2022)	Common Ringlet	<i>Coenonympha tullia</i>					S5	G5	N5				C
OBA (2022)	Monarch	<i>Danaus plexippus</i>	SC	SC	END	SC	S2N,S4B	G5	N3B,NNRM				C
OBA (2022)	Viceroy	<i>Limenitis archippus</i>					S5	G5	N5				UC
OBA (2022)	Little Wood-Satyr	<i>Megisto cymela</i>					S5	G5	N5				C
OBA (2022)	Mourning Cloak	<i>Nymphalis antiopa</i>					S5	G5	N5				C
OBA (2021)	Compton Tortoiseshell	<i>Nymphalis l-album</i>					S5	G5	N5				H
OBA (2022)	Northern Crescent	<i>Phyciodes cocyta</i>					S5	G5	N5				C
OBA (2022)	Pearl Crescent	<i>Phyciodes tharos</i>					S4	G5	N5				C
OBA (1976)	Eastern Comma	<i>Polygonia comma</i>					S5	G5	N5				C
OBA (1976)	Great Spangled Fritillary	<i>Speyeria cybele</i>					S5	G5	N5				C
OBA (1976)	Red Admiral	<i>Vanessa atalanta</i>					S5B	G5	N5B,N5M				C
OBA (2019)	Painted Lady	<i>Vanessa cardui</i>					S5B	G5	N5B,N5M				H
OBA (2022)	Giant Swallowtail	<i>Papilio cresphontes</i>					S4	G5	N4				R
OBA (2022)	Eastern Tiger Swallowtail	<i>Papilio glaucus</i>					S5	G5	N4				C
OBA (2022)	Black Swallowtail	<i>Papilio polyxenes</i>					S5	G5	N5				C

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBA (2022)	Orange Sulphur	<i>Colias eurytheme</i>					S5	G5	N5B,N5M				C
OBA (2022)	Clouded Sulphur	<i>Colias philodice</i>					S5	G5	N5				C
OBA (2016)	Cabbage White	<i>Pieris rapae</i>					SNA	G5	NNA				C
NPCA	West Virginia White	<i>Pieris virginiensis</i>	NL	SC	NL	NL	S3	G3?	N3				
	AMPHIBANS												
ORAA (2017)	American Toad	<i>Anaxyrus americanus</i>					S5	G5	N5				W
ORAA (2009)	Fowler's Toad	<i>Anaxyrus fowleri</i>	END	END	END	END	S2	G5	N2				L
ORAA (2017)	Spring Peeper	<i>Pseudacris crucifer</i>					S5	G5	N5				W
ORAA (2009)	Western Chorus Frog - Carolinian Population	<i>Pseudacris triseriata pop. 1</i>		NAR	NAR		S4	G5	N4				
ORAA (2017)	American Bullfrog	<i>Lithobates catesbeianus</i>					S4	G5	N5	✓			W
ORAA (2017)	Green Frog	<i>Lithobates clamitans</i>					S5	G5	N5				W
ORAA (2017)	Northern Leopard Frog	<i>Lithobates pipiens</i>		NAR	NAR		S5	G5	N5				W
ORAA (2017)	Wood Frog	<i>Lithobates sylvaticus</i>					S5	G5	N5				W
ORAA (2017)	Blue-spotted Salamander	<i>Ambystoma laterale</i>					S4	G5	N5				L
ORAA (1987)	Eastern Red-backed Salamander	<i>Plethodon cinereus</i>					S5	G5	N5				W
	SNAKES AND LIZARDS												
NHIC ORAA (2019)	Milksnake	<i>Lampropeltis triangulum</i>	NAR	NAR	SC	SC	S4	G5T5	N3				L
ORAA (1987)	DeKay's Brownsnake	<i>Storeria dekayi</i>		NAR	NAR		S5	G5T5	N5				W
ORAA (2009)	Red-bellied Snake	<i>Storeria occipitomaculata occipitomaculata</i>					S5	G5	N5				L
ORAA (2013)	Eastern Gartersnake	<i>Thamnophis sirtalis sirtalis</i>					S5	G5T5	N5				W
	TURTLES												
NHIC ORAA (2017) NPCA iNat (2022)	Snapping Turtle	<i>Chelydra serpentina</i>	NL	SC	SC	SC	S4	G5T5	N4				W
ORAA (2017) iNat (2023)	Midland Painted Turtle	<i>Chrysemys picta marginata</i>	NAR	NAR	SC	SC	S4	G5T5	N4				W

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
ORAA (1976)	Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	THR	END	END	S3	G4	N3				L
	BIRDS												
eBird (2018)	Cackling Goose	<i>Branta hutchinsii</i>					SUB,S4M	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Canada Goose	<i>Branta canadensis</i>					S5	G5	N5B,N5N,N5M				VC
eBird (2021)	Mute Swan	<i>Cygnus olor</i>					SNA	G5	NNA				R
eBird (2015)	Tundra Swan	<i>Cygnus columbianus</i>					S2B,S4N,S3M	G5	N5B,N3N,N5M				
OBBA eBird (2021)	Wood Duck	<i>Aix sponsa</i>					S5B, S3N	G5	N5B,N4N5N,N5M				
OBBA eBird (2020)	Blue-winged Teal	<i>Anas discors</i>					S3B,S4M	G5	N5B,N5M				
eBird (2020)	Northern Shoveler	<i>Anas clypeata</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
eBird (2021)	Gadwall	<i>Anas strepera</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
eBird (2021)	American Wigeon	<i>Anas americana</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Mallard	<i>Anas platyrhynchos</i>					S5	G5	N5B,N5N,N5M				
eBird (2020)	American Black Duck	<i>Anas rubripes</i>					S4	G5	N5B,N5N,N5M				
eBird (2020)	Northern Pintail	<i>Anas acuta</i>					S5B,S4N	G5	N5B,N5N,N5M	✓			
eBird (2020)	Green-winged Teal	<i>Anas crecca</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
eBird (2019)	Canvasback	<i>Aythya valisineria</i>					S1B,S3N,S4M	G5	N5B,N4N5N	✓			
eBird (2021)	Redhead	<i>Aythya americana</i>					S2B,S4N,S4M	G5	N5B,N5N,N5M	✓			
eBird (2021)	Ring-necked Duck	<i>Aythya collaris</i>					S5B,S4N	G5	N5B,N5N,N5M				
eBird (2021)	Greater Scaup	<i>Aythya marila</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
eBird (2021)	Lesser Scaup	<i>Aythya affinis</i>					S4B,S4N,S5M	G5	N5B,N5N,N5M				
eBird (2021)	Bufflehead	<i>Bucephala albeola</i>					S5	G5	N5B,N5N,N5M				
eBird (2018)	Common Goldeneye	<i>Bucephala clangula</i>					S5	G5	N5B,N5N,N5M	✓			
eBird (2021)	Ruddy Duck	<i>Oxyura jamaicensis</i>					S3B,S4N,S5M	G5	N5B,N5N,N5M				
OBBA	Wild Turkey	<i>Meleagris gallopavo</i>					S5	G5	N5				UC
OBBA	Ring-necked Pheasant	<i>Phasianus colchicus</i>					SNA	G5	NNA				I

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBBA eBird (2017)	Rock Pigeon	<i>Columba livia</i>					SNA	G5	NNA				VC
OBBA eBird (2018)	Mourning Dove	<i>Zenaida macroura</i>					S5	G5	N5B,N5N,N5M				
OBBA	Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>					S4S5B	G5	N5B,N5M			✓	
OBBA	Yellow-billed Cuckoo	<i>Coccyzus americanus</i>					S4B	G5	N4B,NUM				
NHIC OBBA eBird (2017)	Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	THR	THR	S3B	G4G5	N4BN3M			✓	
OBBA	Ruby-throated Hummingbird	<i>Archilochus colubris</i>					S5B	G5	N5B,N5M				
OBBA	Sandhill Crane	<i>Grus canadensis</i>					S5B,S3N	G5	N5B,N1N,N3	✓	>40ha		
OBBA eBird (2021)	Killdeer	<i>Charadrius vociferus</i>					S4B	G5	N5B,N4N5N,N5M				
OBBA	Upland Sandpiper	<i>Bartramia longicauda</i>					S2B	G5	N5B,N5M	✓	>25ha		
eBird (2017)	Least Sandpiper	<i>Calidris minutilla</i>					S4B,S5M	G5	N5B,N1N2N,N5M				
eBird (2017)	Semipalmated Sandpiper	<i>Calidris pusilla</i>					S2B,S4M	G5	N3N5B,NUN,N4N5M				
OBBA	American Woodcock	<i>Scolopax minor</i>					S4B	G5	N5B,N5M				
OBBA	Wilson's Snipe	<i>Gallinago delicata</i>					S5B	G5	N5B,N5M				
OBBA eBird (2021)	Spotted Sandpiper	<i>Actitis macularius</i>					S5B	G5	N5B,N3N,N5M				
eBird (2021) iNat (2021)	Lesser Yellowlegs	<i>Tringa flavipes</i>	THR	THR	THR	NL	S3S4B,S5M	G5	N4N5B,N5M				
eBird (2017)	Greater Yellowlegs	<i>Tringa melanoleuca</i>					S4B,S5M	G5	N5B,N4N,N5M				
eBird (2020)	Bonaparte's Gull	<i>Larus philadelphia</i>					S5	G5	N5B,N3N,N5M				
eBird (2021)	Ring-billed Gull	<i>Larus delawarensis</i>					S5	G5	N5B,N5N,N5M				
eBird (2018)	Herring Gull	<i>Larus argentatus</i>					S4B,S5N	G5	N5B,N5N,N5M				
eBird (2021)	Double-crested Cormorant	<i>Phalacrocorax auritus</i>		NAR	NAR		S5B,S4N	G5	N5M,N3N4N,N5M				
OBBA	American Bittern	<i>Botaurus lentiginosus</i>					S5B	G5	N5B,N3N,N3	✓			
OBBA eBird (2021)	Great Blue Heron	<i>Ardea herodias</i>					S4	G5	N5B,N3N,N5M				
eBird (2018)	Great Egret	<i>Ardea alba</i>					S2B,S3M	G5	N3B,N3M				

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBBA iNat (2023)	Green Heron	<i>Butorides virescens</i>					S4B	G5	N4N5B,N3N4N,N4N5M				
OBBA eBird (2023)	Turkey Vulture	<i>Cathartes aura</i>					S5B, S3N	G5	N5B,N5M				
eBird (2021)	Osprey	<i>Pandion haliaetus</i>					S5B	G5	N5B,N5N,N5M				
OBBA eBird (2018)	Northern Harrier	<i>Circus cyaneus</i>		NAR	NAR		S5B,S4N	G5	N5B,N4N	✓	>30ha	✓	
OBBA	Sharp-shinned Hawk	<i>Accipiter striatus</i>		NAR			S5	G5	N5B,N5N,N4	✓	>30ha		
OBBA	Cooper's Hawk	<i>Accipiter cooperii</i>		NAR	NAR		S4	G5	N5B,N5N,N4	✓	>10ha		
OBBA eBird (2021)	Red-tailed Hawk	<i>Buteo jamaicensis</i>		NAR	NAR		S5	G5	N5B,N5N,N5M				
OBBA	Eastern Screech-Owl	<i>Megascops asio</i>		NAR	NAR		S4	G5	N4N5				UC
OBBA eBird (2020)	Great Horned Owl	<i>Bubo virginianus</i>					S4	G5	N5				UC
eBird (2021)	Barred Owl	<i>Strix varia</i>					S5	G5	N5	✓	>100ha		ER
OBBA	Long-eared Owl	<i>Asio otus</i>					S4	G5	N5B,N5N,N5M				R
NPCA	Short-eared Owl	<i>Asio flammeus</i>	THR	THR	THR	SC	S4?B,S2S3N	G5	N4B,N3N,N4	✓	>75ha	✓	
OBBA	Belted Kingfisher	<i>Megasceryle alcyon</i>					S5B,S4N	G5	N5B,N4N5N,N5M			✓	
NHIC OBBA NPCA	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	END	END	END	END	S3	G5	N4B,N3M			✓	
OBBA eBird (2021)	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>					S5	G5	N4B,N4N,N3M				UC
OBBA	Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>					S5B,S3N	G5	N5B,N5M	✓	2-5ha		
OBBA eBird (2021)	Downy Woodpecker	<i>Picoides pubescens</i>					S5	G5	N5				C
OBBA eBird (2017)	Hairy Woodpecker	<i>Picoides villosus</i>					S5	G5	N5B,N5N,N4	✓	4-8ha		UC
OBBA eBird (2017)	Northern Flicker	<i>Colaptes auratus</i>					S5	G5	N5B,N5N,N5M			✓	

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBBA eBird (2017)	American Kestrel	<i>Falco sparverius</i>					S4	G5	N5B,N1N,N5M			✓	
eBird (2012)	Merlin	<i>Falco columbarius</i>		NAR	NAR		S5	G5	N5B,N5N,N5M				
OBBA eBird (2017)	Great Crested Flycatcher	<i>Myiarchus crinitus</i>					S5B	G5	N5B,N5M				
OBBA eBird (2017)	Eastern Kingbird	<i>Tyrannus tyrannus</i>					S4B	G5	N5B,N5M			✓	
NHIC OBBA eBird (2021)	Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	SC	SC	S4B	G5	N5B,N5M			✓	
OBBA	Alder Flycatcher	<i>Empidonax alnorum</i>					S5B	G5	N5B,N5M				
OBBA	Willow Flycatcher	<i>Empidonax traillii</i>					S4B	G5	N5B,N5M			✓	
OBBA	Least Flycatcher	<i>Empidonax minimus</i>					S5B	G5	N5B,N5M	✓	>100ha		
OBBA	Eastern Phoebe	<i>Sayornis phoebe</i>					S5B	G5	N5B,N5M				
OBBA	Yellow-throated Vireo	<i>Vireo flavifrons</i>					S4B	G5	N4N5B,N4N	✓	>30ha		
OBBA	Warbling Vireo	<i>Vireo gilvus</i>					S5B	G5	N5B,N5M				
OBBA eBird (2017)	Red-eyed Vireo	<i>Vireo olivaceus</i>					S5B	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Blue Jay	<i>Cyanocitta cristata</i>					S5	G5	N5B,N5N,NNRM				VC
OBBA eBird (2021)	American Crow	<i>Corvus brachyrhynchos</i>					S5	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Black-capped Chickadee	<i>Poecile atricapillus</i>					S5	G5	N5				C
NHIC OBBA eBird (2017)	Tufted Titmouse	<i>Baeolophus bicolor</i>					S3	G5	N4	✓	>4ha		R
OBBA eBird (2017)	Horned Lark	<i>Eremophila alpestris</i>					S4	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Tree Swallow	<i>Tachycineta bicolor</i>					S4S5B	G5	N5B,N5M				

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBBA eBird (2021)	Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>					S4B	G5	N5B,N5M				
OBBA eBird (2021)	Purple Martin	<i>Progne subis</i>					S3B	G5	N5B,N5M				
NHIC OBBA NPCA eBird (2021)	Barn Swallow	<i>Hirundo rustica</i>	SC	SC	THR	THR	S4B	G5	N3N4B,N3N4M				
OBBA eBird (2017)	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>					S4S5B	G5	N5B,N5M				
eBird (2017)	Golden-crowned Kinglet	<i>Regulus satrapa</i>					S5	G5	N5B,N5N,N5M				
eBird (2021)	Ruby-crowned Kinglet	<i>Corthylio calendula</i>					S5B,S3N	G5	N5B,N5N,N5M				
OBBA eBird (2017)	Cedar Waxwing	<i>Bombycilla cedrorum</i>					S5	G5	N5B,N5N,N5M				
OBBA eBird (2021)	White-breasted Nuthatch	<i>Sitta carolinensis</i>					S5	G5	N5	✓	>10ha		
OBBA eBird (2017)	Brown Creeper	<i>Certhia americana</i>					S5	G5	N5B,N5N,N5M	✓	>30ha		
eBird (2017)	Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>					S4B	G5	N4B,N4M	✓	>30ha		
OBBA eBird (2020)	Carolina Wren	<i>Thryothorus ludovicianus</i>					S4	G5	N4				UC
OBBA eBird (2021)	Gray Catbird	<i>Dumetella carolinensis</i>					S5B,S3N	G5	N5B,N5M				
OBBA	Brown Thrasher	<i>Toxostoma rufum</i>					S4B	G5	N5B,NUN,N5M			✓	
OBBA	Northern Mockingbird	<i>Mimus polyglottos</i>					S4	G5	N5B,N4N5N,N5M				UC
OBBA eBird (2021)	European Starling	<i>Sturnus vulgaris</i>					SNA	G5	NNA				VC
eBird (2021)	Eastern Bluebird	<i>Sialia sialis</i>		NAR	NAR		S5B,S4N	G5	N5B,N5M				
OBBA	Veery	<i>Catharus fuscescens</i>					S5B	G5	N5B,N5M	✓	>10ha		
NHIC NPCA	Wood Thrush	<i>Hylocichla mustelina</i>	SC	SC	THR	THR	S4B	G4	N4B,NUM			✓	

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OBBA eBird (2021)	American Robin	<i>Turdus migratorius</i>					S5	G5	N5B,N4N5N,N5M				
OBBA eBird (2017)	House Sparrow	<i>Passer domesticus</i>					SNA	G5	NNA				VC
OBBA	House Finch	<i>Carpodacus mexicanus</i>					SNA	G5	N5				C
OBBA	Purple Finch	<i>Carpodacus purpureus</i>					S5	G5	N5B,N5N,N5M				
OBBA eBird (2021)	American Goldfinch	<i>Carduelis tristis</i>					S5	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Chipping Sparrow	<i>Spizella passerina</i>					S5B,S3N	G5	N5B,N5M				
OBBA eBird (2017) iNat (2017)	Field Sparrow	<i>Spizella pusilla</i>					S4B,S3N	G5	N4B,NUM			✓	
eBird (2019)	American Tree Sparrow	<i>Spizella arborea</i>					S5	G5	N5B,N5N,N5M				
eBird (2021)	Dark-eyed Junco	<i>Junco hyemalis</i>					S5	G5	N5B,N5N,N5M				
eBird (2021)	White-throated Sparrow	<i>Zonotrichia albicollis</i>					S5	G5	N5B,N5N,N5M				
OBBA	Vesper Sparrow	<i>Poocetes gramineus</i>					S4B	G5	N5B,N5M			✓	
OBBA eBird (2021)	Savannah Sparrow	<i>Passerculus sandwichensis</i>					S5B,S3N	G5	N5B,N4N,N4M	✓	>50ha	✓	
OBBA eBird (2021)	Song Sparrow	<i>Melospiza melodia</i>					S5	G5	N5B,N5N,N5M				
OBBA	Swamp Sparrow	<i>Melospiza georgiana</i>					S5B,S4N	G5	N5B,NUN,N5M				
OBBA eBird (2021)	Eastern Towhee	<i>Pipilo erythrophthalmus</i>					S4B,S3N	G5	N4N5B,N4M			✓	
OBBA NPCA	Yellow-breasted Chat	<i>Icteria virens</i>	END	END	END	END	S1B	G5	N3N4B,N3N4M			✓	
NHIC OBBA eBird (2021)	Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	THR	THR	S4B	G5	N5B,N4N5M	✓	>10ha	✓	
NHIC OBBA	Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	THR	THR	S4B,S3N	G5	N4B,NUM	✓	>10ha	✓	

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
OBBA	Orchard Oriole	<i>Icterus spurius</i>					S4B	G5	N5B,N5M				
OBBA eBird (2021)	Baltimore Oriole	<i>Icterus galbula</i>					S4B	G5	N5B,N5M			✓	
OBBA eBird (2023)	Red-winged Blackbird	<i>Agelaius phoeniceus</i>					S5	G5	N5B,N5N,N5M				
OBBA eBird (2021)	Brown-headed Cowbird	<i>Molothrus ater</i>					S5	G5	N5B,NUN,N5M				
OBBA eBird (2021)	Common Grackle	<i>Quiscalus quiscula</i>					S5	G5	N5B,NUN,N5M				
OBBA eBird (2021)	Ovenbird	<i>Seiurus aurocapilla</i>					S5B	G5	N5B,N5M	✓	>70ha		
OBBA	Blue-winged Warbler	<i>Vermivora pinus</i>					S4B	G5	N5B,N5M			✓	
OBBA eBird (2021)	Common Yellowthroat	<i>Geothlypis trichas</i>					S5B,S3N	G5	N5B,N5M				
OBBA	Hooded Warbler	<i>Wilsonia citrina</i>				THR	S4B	G5	N4B,NNRM			✓	
OBBA eBird (2021)	American Redstart	<i>Setophaga ruticilla</i>					S5B	G5	N5B,N5M	✓	>100ha		
eBird (2021)	Blackburnian Warbler	<i>Dendroica fusca</i>					S5B	G5	N5B,N5M	✓	>50ha		
OBBA eBird (2021)	Yellow Warbler	<i>Dendroica petechia</i>					S5B	G5	N5B,N5M				
eBird (2021)	Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>					S5B	G5	N5B,N5M				
eBird (2020)	Yellow-rumped Warbler	<i>Dendroica coronata</i>					S5B,S4N	G5	N5B,N4N,N5M				
OBBA eBird (2021)	Scarlet Tanager	<i>Piranga olivacea</i>					S5B	G5	N5B,N4N5M	✓	>20ha		
OBBA eBird (2021)	Northern Cardinal	<i>Cardinalis cardinalis</i>					S5	G5	N5				C
OBBA eBird (2021)	Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>					S5B	G5	N5B,N5M			✓	
OBBA	Indigo Bunting	<i>Passerina cyanea</i>					S5B	G5	N5B,N5M				
eBird (2017)	Northern Shrike	<i>Lanius borealis</i>					S4B,S5N	G5	N5B,N5N				
eBird (2018)	Greater White-fronted Goose	<i>Anser albifrons</i>					S3M	G5	N5B				

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
	MAMMALS												
OMA	White-tailed Deer	<i>Odocoileus virginianus</i>					S5	G5	N5				
OMA	Red Fox	<i>Vulpes vulpes</i>					S5	G5	N5				
OMA	Striped Skunk	<i>Mephitis mephitis</i>					S5	G5	N5				
OMA	American Mink	<i>Neovison vison</i>					S4	G5	N5				
OMA	Northern Raccoon	<i>Procyon lotor</i>					S5	G5	N5				
OMA	Muskrat	<i>Ondatra zibethicus</i>					S5	G5	N5				
OMA	Eastern Gray Squirrel	<i>Sciurus carolinensis</i>					S5	G5	N5				
	FISH												
NHIC	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	<i>Acipenser fulvescens pop. 3</i>	THR	THR	THR		S2	G3G4TNRQ	N3				
NHIC NPCA	Greater Redhorse	<i>Moxostoma valenciennesi</i>					S3	G4	N4				
NHIC DFO NPCA	Grass Pickerel	<i>Esox americanus</i>	SC	SC	SC	SC	S3	G5	N4				
DFO NPCA	Northern Sunfish (Great Lakes - Upper St. Lawrence p	<i>Lepomis peltastes pop. 2</i>	SC	SC	SC	SC	S3	G5TNRQ	N3?				
MNRF	Black Bullhead	<i>Ameiurus melas</i>					S4	G5	N5				
MNRF	Black Crappie	<i>Pomoxis nigromaculatus</i>					S4	G5	N5				
MNRF	Bluegill	<i>Lepomis macrochirus</i>					S5	G5	N5				
MNRF	Bluntnose Minnow	<i>Pimephales promelas</i>					S5	G5	N5				
MNRF	Brook Silverside	<i>Labidesthes sicculus</i>					S4	G5	N4				
MNRF	Brown Bullhead	<i>Ameiurus nebulosus</i>					S5	G5	N5				
MNRF	Central Mudminnow	<i>Umbra limi</i>					S5	G5	N5				
MNRF	Common Carp	<i>Cyprinus carpio</i>					SNA	G5	NNA				
MNRF	Common Shiner	<i>Luxilus cornutus</i>					S5	G5	N5				
MNRF	Emerald Shiner	<i>Notropis atherinoides</i>					S5	G5	N5				
MNRF	Gizzard Shad	<i>Dorosoma cepedianum</i>					S4	G5	N4N5				

SOURCE	COMMON NAME	SCIENTIFIC NAME	COSSARO ¹	SARO ²	COSEWIC ³	SARA ⁴	S-RANK ⁵	G-RANK ⁶	N-RANK ⁷	AREA SENSITIVE ⁸	AREA REQUIRED ⁸	PIF SPECIES ⁹	NIAGARA REGION NAI (2010)
MNRF	Golden Shiner	<i>Notemigonus crysoleucas</i>					S5	G5	N5				
MNRF	Goldfish	<i>Carassius auratus</i>					SNA	G5	NNA				
MNRF	Green Sunfish	<i>Lepomis cyanellus</i>					S4	G5	N4				
MNRF	Johnny Darter	<i>Etheostoma nigrum</i>					S5	G5	N5				
MNRF	Largemouth Bass	<i>Micropterus salmoides</i>					S5	G5	N5				
MNRF	Northern Pike	<i>Esox lucius</i>					S5	G5	N5				
MNRF	Pumpkinseed	<i>Lepomis gibbosus</i>					S5	G5	N5				
MNRF	Tadpole Madtom	<i>Moturus gyrinus</i>					S4	G5	N5				
MNRF	White Crappie	<i>Pomoxis annularis</i>					S4	G5	N4				
MNRF	White Sucker	<i>Catostomus commersonii</i>					S5	G5	N5				
MNRF	Yellow Bullhead	<i>Ameiurus natalis</i>					S4	G5	N4				
MNRF	Yellow Perch	<i>Perca flavescens</i>					S5	G5	N5				
	MUSSELS												
NPCA	Wabash Pigtoe	<i>Fusconaia flava</i>					S2S3	G5	N3				
	CRUSTACEANS												
iNat (2020)	Calico Crayfish	<i>Faxonius immunis</i>					S4	G5	N4N5				

Legend:

COSARO: Committee on Species at Risk Ontario
 COSEWIC: Committee on the Status of Endangered Wildlife in Canada
 SARA: Species at Risk Act
 ESA: Endangered Species Act
 END: Endangered
 THR: Threatened
 SC: Special Concern
 EXP: Extirpated from Ontario
 NAR: Not At Risk
 NL: Not listed
 DD: Data Deficient

S-Rank:

S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)
 S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer),
 S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)
 S4: Apparently Secure—Uncommon but not rare
 S5: Secure—Common, widespread, and abundant in the province
 SX: Presumed extirpated
 SH: Possibly Extirpated (Historical)
 SNR: Unranked
 SU: Unrankable—Currently unrankable due to lack of information
 SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities
 S#S#: Range Rank—A numeric range rank (e.g., S2S3)
 is used to indicate any range of uncertainty about the status of the species
 S#B- Breeding status rank
 S#N- Non Breeding status rank
 ?: Indicates uncertainty in the assigned rank

G-Rank:

G1: Extremely rare globally
 G1G2: Extremely rare to very rare globally
 G2: Very rare globally
 G2G3: Very rare to uncommon globally
 G3: Rare to uncommon globally
 G3G4: Rare to common globally
 G4: Common globally
 G4G5: Common to very common globally
 G5: Very common globally; demonstrably secure
 T: Denotes that the rank applies to a subspecies or variety

Niagara Region NAIReptiles & Amphibians

W: Widespread (any species that is widely distributed in the study area)
 L: Localized (Any species that is not widely distributed (found in ≤ 6 townships)
 RS: Regionally Significant (Any species of local conservation concern.
 They are either not widely distributed in the study area due to specialized habitat requirements or based upon our local knowledge demonstrate declining trends)
 E: Extirpated (Any species with local historic records which is now considered no longer present in the study area)
 I: Introduced (Locally found species that are thought to be not native to the study area)
 DD: Data Deficient (Insufficient local data available to determine regional status)

Butterflies, Dragonflies & Damselflies

C: Common (currently known to be present at more than 10 stations)
 UC: Uncommon (currently known to be present at 5-10 stations)
 R: Rare (currently known to be present at fewer than 5 stations)
 H: Historical

Birds

VC: Very common (observed annually on most days at many locations, often in large numbers)

C: Common (currently known to be present at more than 10 stations)

UC: Uncommon (observed annually on many days at a few locations in small numbers)

R: Rare (currently known to be present at fewer than 5 stations)

O: Occasional (Not observed annually though always anticipated; often only a single individual observed)

ER: Extremely Rare (an extraordinary observation with five or fewer Niagara records; the probability of recurrence very low)

EXP: Extirpated (Formerly resident in Niagara; no longer observed)

EXT: Extinct (Formerly observed in Niagara; no longer existing anywhere)

Source codes

OBA: Ontario Butterfly Atlas

ORAA: Ontario Reptile and Amphibian Atlas

OMA: Ontario Mammal Atlas

OBBA: Ontario Breeding Bird Atlas

eBird: eBird

iNat: iNaturalist

NHIC: Natural Heritage Information Centre

DFO: Department of Fisheries and Oceans Species at Risk Mapping

MNRF: Ministry of Natural Resources

NPCA: Niagara Peninsula Conservation Authority

References:

-
1. COSSARO Status Endangered Species Act, 2007 (Bill 184). Schedules 1- 5. June 30 2008.
 2. Species at Risk in Ontario List. Endangered Species Act, 2007 (Ontario Regulation 230/08). January 25, 2023.
 3. COSEWIC Status COSEWIC. 2014. Canadian Species at Risk. Committee on the Status of Endangered Wildlife in Canada.
 4. Endangered Species Act, 2007 (Bill 184). Schedules 1- 5. April 21, 2015
 5. Provincial Rarity Rank. NatureServe. 2023.
 6. Global Rarity Rank. NatureServe. 2023.
 7. National Rank. NatureServe. 2023.
 8. Ontario Partners in Flight (PIF). 2008. Ontario Landbird Conservation Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13), Priorities, Objectives and Recommended Actions. Environment Canada (Ontario Region) and Ontario Ministry of Natural Resources. Final Draft, November, 2008.
 9. NPCA Natural Areas Inventory. Volume 2. 2006-2009

Appendix 6

MECP Correspondence



3-5 Edinburgh Road South
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N1H 5N8

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URBAN FORESTRY

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TREE PRESERVATION PLANS
TREE RISK ASSESSMENT
GIS TREE INVENTORIES
TREE APPRAISALS
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HABITAT RESTORATION
EDGE MANAGEMENT PLANS
RAVINE STEWARDSHIP PLANS
NATURALIZATION PLANS
INTERPRETIVE DESIGN
MONITORING
CONTRACT ADMINISTRATION

ENVIRONMENTAL STUDIES

SUBWATERSHED STUDIES
ENVIRONMENTAL IMPACT
STATEMENTS
ECOLOGICAL LAND
CLASSIFICATION
WETLAND EVALUATION
VEGETATION ASSESSMENT
BOTANICAL INVENTORIES
WILDLIFE SURVEYS
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MASTER PLANNING
RESIDENTIAL COMMUNITIES
COMMERCIAL/INDUSTRIAL
HEALTHCARE AND EDUCATION
STREETSCAPES
PARKS AND OPEN SPACES
TRAIL SYSTEMS
GREEN ROOFS
CONTRACT ADMINISTRATION

EXPERT OPINION

OMB TESTIMONY
LEGAL PROCEEDINGS
PEER REVIEW
RESEARCH
EDUCATION

November 24, 2023

Our Project #: AA23-226A

Sent by email: SAROntario@ontario.ca

Ministry of the Environment, Conservation and Parks
Niagara MECP District Office
St. Catharines, ON
L2R 3M8

**Re: Towline Road Pumping Station, Fort Erie, ON
Request for Species at Risk and Local Site Information**

To whom it may concern,
Please accept this request for information regarding:

☒ Species at Risk

Any other possible site constraints or information would also be greatly appreciated as it applies to a Species at Risk Screening and Assessment for the construction of a pumping station in Fort Erie (*Figure 1*). The information provided will be used to inform the Terms of Reference and field program, which will be prepared in consultation with Niagara Peninsula Conservation Authority, the Town of Fort Erie, and Niagara Region.

Project Location

Township/Municipality: Town of Fort Erie, ON

Region: Niagara Region

Coordinates: 42.964189, -79.032706

Proposed Activity

The Town of Fort Erie is proposing the construction of a pumping station to provide water, sanitary, and stormwater services in the area North and South of Townline Road between Netherby Road and the QEW. As a due diligence exercise, a Species at Risk (SAR) Screening, and a SAR habitat assessment will be completed to determine if SAR, or their habitat, are likely to be harmed during the construction of the pumping station.

Existing Site Conditions

The study area contains a number of natural heritage features, including the provincially significant Black Creek Wetland Complex, a woodland, and a portion of a Natural Heritage System (designated by the Growth Plan for the Greater Golden Horseshoe). The study area comprises the pumping station study area and up to 120 metres from it, where access is provided (Figure 1).

Background Information

A thorough background search has been completed using available resources provided online related to the subject property and adjacent lands, and is listed below:

1. Review of the Ontario Breeding Bird Atlas identified 96 species that are known to occur or have historically occurred in the 10 km x 10 km square that contains the study area (17PH65). This list includes 10 species listed under the ESA and SARA: Barn Swallow (*Hirundo rustica*; SC under SARO and THR under SARA), Bobolink (*Dolichonyx oryzivorus*; THR), Red-headed Woodpecker (*Melanerpes erythrocephalus*; END), Lesser Yellowlegs (*Tringa flavipes*; THR), Chimney Swift (*Chaetura pleagica*; THR), Yellow-breasted Chat (*Icteria virens*; END), Eastern Meadowlark (*Sturnella magna*; THR), Eastern Wood-pewee (*Contopus virens*; SC), Hooded Warbler (*Wilsonia citrina*; not listed under SARO but THR under SARA), and Wood Thrush (*Hylocichla mustelina*; SC under SARO and THR under SARA).
2. Review of the Ontario Reptile and Amphibian Atlas identified 17 species that are known to occur or have historically occurred in the 10 km x 10 km square that contains the study area (17PH65). This list includes five species which are considered SAR: Fowler's Toad (*Anaxyrus fowleri*; END), Milksnake (*Lampropeltis Triangulum*; not listed under SARO but SC under SARA), Snapping Turtle (*Chelydra serpentina*; SC), Midland Painted Turtle (*Chrysemys picta marginata*; not listed under SARO but SC under SARA), and Blanding's Turtle (*Emydoidea blandingii*; THR under SARO but END under SARA).
3. Review of the Atlas of the Mammals of Ontario (1994) identified seven species that are known to occur or have historically occurred in the 10 km x 10 km square that contains the study area (17PH65). No species of conservation concern were identified.

4. eBird is an online reporting system for birdwatchers managed by the Cornell Lab of Ornithology. The database was reviewed to determine what bird species have been reported in the vicinity of the property. The closest reporting location is the Douglastown Sewage Lagoons, located 600 metres northwest of the bridge. 101 species were observed, including six species of conservation concern: Chimney Swift, Lesser Yellowlegs, Barn Swallow, Bobolink, Eastern Wood-pewee, and Wood Thrush (*Hylocichla mustelina*; SC under SARO and THR under SARA).

5. iNaturalist, a self-reporting system that is not limited by taxa, was also consulted in the background review. The search was limited to approximately 1 km surrounding the study area and only research grade reports, which are confirmed independently, were used to compile the list. 17 species total were identified: 8 plant species, one mushroom species, two insect species, two reptile species, three bird species, and one crustacean species were identified. Three SAR were observed: Lesser Yellowlegs, Snapping Turtle, and Midland Painted Turtle.

6. Preliminary investigation through the Natural Heritage Information Centre (NHIC) indicated the presence of a 16 SAR and provincially rare species within 3 km x 3 km square containing the study area (1PH6058). These include 11 wildlife species at risk: Milksnake, Snapping Turtle, Barn Swallow, Eastern Wood-pewee, Wood Thrush, Bobolink, Eastern Meadowlark, Red-headed Woodpecker, Yellow-breasted Chat, Grass Pickerel (*Esox americanus*; SC), and Lake Sturgeon (Great Lakes - Upper St. Lawrence River population; *Acipenser fulvescens* pop. 3; THR). Restricted species were also identified in the reviewed squares.

7. Review of the Atlas of the Butterflies of Ontario identified 27 species that are known to occur or have historically occurred in the 10 km x 10 km square that contain the study area (17PH65). This list includes one SAR (Monarch).

8. The online Fisheries and Oceans Canada (DFO) mapping system was consulted in the background review. A review for SAR Critical Habitat and species presence was completed in a 1 km radius around the subject structure. Critical habitat was identified as present or potentially present for Grass Pickerel and Northern Sunfish.

9. The Aquatic Resources Area (ARA) Survey Point and Line Segment mapping identified 23 fish species present within 1 km of the subject structure, none of which are SAR.

10. The Niagara Peninsula Conservation Authority Natural Areas Inventory identified 9 SAR; West Virginia White, Snapping Turtle, Short-eared Owl, Red-headed Woodpecker, Barn Swallow, Wood Thrush, Yellow-breasted Chat, Grass Pickerel, and Northern Sunfish.

Please contact the undersigned should you require additional information of the above.

Sincerely,

ABOUD & ASSOCIATES INC.



Brynn Varcoe, B.Sc., M.Sc.
Terrestrial Ecologist
brynn@aboudtng.com

CC: cheryl@aboudtng.com, sdavison@aboudtng.com

Attachment: Figure 1- Study Area

Document1



LEGEND

- | | | | |
|---|----------------------------|---|----------------------------------|
|  | PUMPING STATION LOCATION |  | PROVINCIALY SIGNIFICANT WETLANDS |
|  | PUMPING STATION STUDY AREA |  | WOODLANDS |
|  | SERVICING PROJECT LOCATION | | |

Information Sources:
1. Orthophotography provided by First Base Solutions
Accessed September 2023.

Title:

STUDY AREA

Project:

TOWNLINE RD PUMPING
STATION, FORT ERIE, ON



Date: SEPTEMBER 2023

Project: AA23-226A

Scale: 1 : 5000

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Figure No:

1

Appendix 7

MNRF Correspondence



3-5 Edinburgh Road South
Guelph, Ontario
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info@aboutdtn.com

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URBAN FORESTRY

ARBORIST REPORTS
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LANDSCAPE ARCHITECTURE

MASTER PLANNING
RESIDENTIAL COMMUNITIES
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PARKS AND OPEN SPACES
TRAIL SYSTEMS
GREEN ROOFS
CONTRACT ADMINISTRATION

EXPERT OPINION

OMB TESTIMONY
LEGAL PROCEEDINGS
PEER REVIEW
RESEARCH
EDUCATION

November 24, 2023

Our Project #: AA23-226A

Sent by email: esa.guelph@ontario.ca

Ministry of Natural Resources and Forestry
4890 Victoria Ave N
PO Box 5000, Vineland, ON
L0R 2E0

**Re: Towline Road Pumping Station, Fort Erie, ON
Request for Local Site Information**

Dear MNRF Staff:

Please accept this request for Information regarding:

- ☒ Wetland Mapping and/or Evaluation and Data Records, Black Creek Wetland Complex
- ☒ Fish Dot Information
- ☐ ANSI Mapping and/or check-sheet [ANSI name]

Any other possible site constraints or information would also be greatly appreciated as it applies to a Species at Risk Screening and Assessment for the construction of a pumping station in Fort Erie (*Figure 1*). The information provided will be used to inform the Terms of Reference and field program, which will be prepared in consultation with Niagara Peninsula Conservation Authority, the Town of Fort Erie, and Niagara Region.

Project Location

Township/Municipality: Town of Fort Erie, ON

Region: Niagara Region

Coordinates: 42.964189, -79.032706

Proposed Activity

The Town of Fort Erie is proposing the construction of a pumping station to provide water, sanitary, and stormwater services in the area North and South of Townline Road between Netherby Road and the QEW. As a due diligence exercise, a Species at Risk (SAR) Screening, and a SAR habitat assessment will be completed to determine if SAR, or their habitat, are present and likely to be harmed during the construction of the pumping station.

Existing Site Conditions

The study area contains a number of natural heritage features, including the provincially significant Black Creek Wetland Complex, a woodland, and a portion of a Natural Heritage System (designated by the Growth Plan for the Greater Golden Horseshoe). The study area comprises the pumping station location and up to 120 metres from it, where access is provided (Figure 1).

Background Information

A thorough background search has been completed using available resources provided online related to the subject property and adjacent lands, and is listed below:

1. A review of the Niagara Peninsula Conservation Authority (NPCA) web mapping indicates that a portion of the study area is within the NPCA Regulation Limit.
2. A review of the Land Information Ontario mapping (2007) indicates the provincially significant Black Creek Wetland Complex and a woodland are within the study area.

Please contact the undersigned should you require additional information of the above.

Kind regards,

ABOUD & ASSOCIATES INC.



Brynn Varcoe, B.Sc., M.Sc.
Terrestrial Ecologist
brynn@aboudtng.com

CC: cheryl@aboudtng.com, sdavison@aboudtng.com

Attachment: Figure 1- Study Area

Document3



LEGEND

- | | |
|--|--|
|  PUMPING STATION LOCATION |  PROVINCIALY SIGNIFICANT WETLANDS |
|  PUMPING STATION STUDY AREA |  WOODLANDS |
|  SERVICING PROJECT LOCATION | |

Information Sources:
1. Orthophotography provided by First Base Solutions
Accessed September 2023.

Title:

STUDY AREA

Project:

TOWNLINE RD PUMPING
STATION, FORT ERIE, ON



Date: SEPTEMBER 2023

Project: AA23-226A

Scale: 1 : 5000

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Figure No:

1

Shannon Davison

From: Brynn Varcoe
Sent: November 27, 2023 11:03 AM
To: Shannon Davison
Subject: FW: Towline Road Pumping Station, Fort Erie, ON Request for Local Site Information
Attachments: Black Creek 0904 RD AY2.pdf

From: Denyes, David (MNRF) <David.Denyas@ontario.ca>
Sent: Monday, November 27, 2023 10:50 AM
To: Brynn Varcoe <Brynn@aboudtng.com>
Subject: RE: Towline Road Pumping Station, Fort Erie, ON Request for Local Site Information

Caution. Outside Sender

Hello Brynn,

Thank you for your request for information on natural heritage features.

Absence or lack of information for a given geographic area does not necessarily mean the absence of natural heritage features. Many areas in Ontario have never been surveyed and new plant and animal species records are still being discovered for many localities. In addition, new species may be listed and new natural heritage features may be defined over time. For these reasons, the Ministry cannot provide a definitive statement on the presence, absence or condition of natural heritage features in all parts of Ontario.

At this time, the Ministry has the following information within the vicinity of your project location.

1. Provincially Significant Black Creek Wetland Complex (evaluation attached)
2. White-tailed Deer Wintering Area (Stratum 2)
3. Black Creek
 - a. Species (from ARA layer): *Black Bullhead, Black Crappie, Bluegill, Bluntnose Minnow, Brook Silverside, Brown Bullhead, Central Mudminnow, Common Carp, Common Shiner, Emerald Shiner, Gizzard Shad, Golden Shiner, Goldfish, Green Sunfish, Johnny Darter, Largemouth Bass, Northern Pike, Pumpkinseed, Sunfishes, Tadpole Madtom, White Crappie, White Sucker, Yellow Bullhead, and Yellow Perch*
 - b. Restricted in-water work timing window: March 1st to July 1st (Note: Dates represent when in-water work should be avoided)
4. Species at Risk information is available through the Ministry of Environment, Conservation & Parks (MECP) – Please contact MECP at SAROntario@ontario.ca
5. The Department of Fisheries and Oceans Aquatic Species at Risk mapping indicates the potential for Grass Pickerel and Northern Sunfish to be present within Beaver Creek and its tributaries within this general area. Please reach out to DFO for any further aquatic SAR considerations. You can also view DFO's aquatic species at risk map at <https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>

Thanks,

David

David Denyes

Management Biologist
Ministry of Natural Resources and Forestry
Vineland Field Office
4890 Victoria Avenue North
Vineland Station ON, L0R 2E0
Tel: (289) 241-6872
david.denyesh@ontario.ca

From: Brynn Varcoe <Brynn@aboudtng.com>
Sent: November 24, 2023 1:51 PM
To: Aggregates Aylmer-Guelph (MNR) <AYGUaggregates@ontario.ca>
Cc: Shannon Davison <sdavison@aboudtng.com>; Cheryl-Anne Ross <Cheryl@aboudtng.com>
Subject: Towline Road Pumping Station, Fort Erie, ON Request for Local Site Information

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

Good afternoon,

Please find attached a request for local site information as it pertains to a scoped EIS for proposed development on Towline Road, Fort Erie, ON. Any additional information you can provide would be greatly appreciated.

Sincerely,

Brynn Varcoe B.Sc., M.Sc.
Ecologist
ABOUD & ASSOCIATES INC. 3-5 Edinburgh Road South . Guelph . Ontario . N1H 5N8
www.aboudtng.com

- Urban Forestry
- Ecological Restoration
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- Environmental Studies
- Expert Opinion



APPENDIX B

Stage 1 Archaeological Assessment

**Stage 1 Archaeological Assessment
Townline Road Sanitary Sewer
Part of Lot 16, Concession 9 Niagara River
And Concession 10 Niagara River
Geographic Township of Bertie
Part of Lots 22 and 23, Concession Broken Front
On Niagara River and Adjoining Township
Lots 19 and 20, Concession Broken Front on
Niagara River Front Upper End of Grand Island,
Geographic Township of Willoughby
Former Welland County
Now Town of Fort Erie
Regional Municipality of Niagara
Ontario**

Prepared for
WT Infrastructure Solutions Inc.
17-370 Stone Road West
P.O. Box 25002
Guelph, ON N1G 4T4
Tel: (519) 400-1185

Licensed under
C. Ramsoomair
MCM Licence #P1106
PIF #P1106-0041-2024
ARA File #2023-0481

26/06/2024

Original Report

EXECUTIVE SUMMARY

Under a contract awarded in October 2023, Archaeological Research Associates Ltd. carried out a Stage 1 assessment of lands with the potential to be impacted by infrastructural improvements along Townline Road from Netherby Road to the Queen Elizabeth Expressway in the Town of Fort Erie, Regional Municipality of Niagara, Ontario. The project involves sanitary sewer servicing upgrades. The assessment was carried out as part of a Schedule 'B' Municipal Class Environmental Assessment in accordance with the *Environmental Assessment Act*. The proposed work includes a new sanitary pumping station (SPS) and a 250 mm gravity sewer along Townline Road connecting to the existing force mains in the west and an outfall into Black Creek in the east (Appendix A). This report documents the background research and potential modelling involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The Stage 1 assessment was conducted in April 2024 under Project Information Form (PIF) #P1106-0041-2024. The investigation encompassed the entire study area. All field observations were made from accessible public areas; accordingly, no permissions were required for property access. At the time of assessment, the study area consisted of roadways, ditches, overgrown areas, agricultural fields, woodlots, manicured lawns, residential buildings, construction yards and a mobile home park.

The Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential and areas of no archaeological potential. It is recommended that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 S&Gs, which is anticipated to include the SPS. The areas of no archaeological potential do not require any additional assessment. If any in-water work is planned within the watercourse, the Criteria for Evaluating Marine Archaeological Potential checklist should be consulted.

The agricultural fields must be assessed using the pedestrian survey method at an interval of 5 m. All ground surfaces must be recently ploughed (typically within the month prior to assessment), weathered by one heavy rainfall or several light rains, and provide at least 80% visibility. If archaeological materials are encountered, the transect interval must be decreased to at least 1 m and a close inspection of the ground must be conducted over a minimum of a 20 m radius around the find. This interval must be continued until the full extent of the scatter has been defined.

The grassed areas, scrubland, and woodlots must be assessed using the test pit survey method. A survey interval of 5 m is warranted due to the proximity of the lands to the identified features of archaeological potential.

Given the likelihood that the Black Creek Retirement community and lands adjacent to the laydown area north of Townline Road were previously impacted, a combination of visual inspection and test pit survey should be utilized to confirm the extent of disturbance in accordance with Section 2.1.8 of the 2011 S&Gs. This will allow for the empirical evaluation of the integrity of the soils and the depth of any impacts. If disturbance cannot be confirmed, then a test pit survey interval of 5 m must be maintained.

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ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
CIF – Contract Information Form
MCM – Ministry of Citizenship and Multiculturalism
PIF – Project Information Form
S&Gs – Standards and Guidelines for Consultant Archaeologists

PERSONNEL

Project Director: P.J. Racher (#P007)
Operations Manager: C.E. Gohm (#R187)
Project Archaeologist: C. Ramsomair (#P1106)
Field Director: C. Ramsomair
Assistant Field Director: V. Mann
Cartographer: M. Johnson
Report Writer: C. Albani
Editor: C. Ramsomair

ENGAGED GROUPS

Department of Consultation & Accommodation
Mississaugas of the Credit First Nation
Contacts: A. LaForme, J. Williams
Field Representative: None

Haudenosaunee Development Institute
Haudenosaunee Confederacy Chiefs Council
Contacts: O. Greene, S. Martin, T. Williams
Field Representative: None

Six Nations Lands & Resources Office
Six Nations of the Grand River Elected Council
Contacts: T. Henhawk, T. Hill-Montour, D. LaForme
Field Representative: None

1.0 PROJECT CONTEXT

1.1 Development Context

Under a contract awarded in October 2023, Archaeological Research Associates Ltd. carried out a Stage 1 assessment of lands with the potential to be impacted by infrastructural improvements along Townline Road from Netherby Road to the Queen Elizabeth Expressway in the Town of Fort Erie, Regional Municipality of Niagara, Ontario. The project involves sanitary sewer servicing upgrades. The assessment was carried out as part of a Schedule ‘B’ Municipal Class Environmental Assessment in accordance with the *Environmental Assessment Act*. The proposed work includes a new sanitary pumping station (SPS) and a 250 mm gravity sewer along Townline Road connecting to the existing force mains in the west and an outfall into Black Creek in the east (Appendix A). This report documents the background research and potential modelling involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The study area consists of an irregularly shaped parcel of land with an area of 57.19 ha (Map 1). This parcel is generally bounded by Netherby Road to the northwest, the Queen Elizabeth Expressway (QEW) to the northeast, Black Creek to the southeast, and agricultural lands to the southwest. In legal terms, the study area falls within part of Lot 16, Concessions 9 and 10 Niagara River in the Geographic Townships of Bertie, Lots 22 and 23, Concession Broken Front on Niagara River and Adjoining Township and Lots 19 and 20, Concession Broken Front on Niagara River Front Upper End of Grand Island, Geographic township of Willoughby, former Welland County, now Town of Fort Erie, Regional Municipality of Niagara.

The Stage 1 assessment was conducted in April 2024 under Project Information Form (PIF) #P1106-0041-2024. The investigation encompassed the entire study area. All field observations were made from accessible public areas; accordingly, no permissions were required for property access. As set out in Section 1.0 of the 2011 *Standards and Guidelines for Consultant Archaeologists (S&Gs)*, the investigation was carried out to achieve the following objectives:

- Provide information about geography, history and current land conditions;
- Determine whether any previous archaeological fieldwork has been completed;
- Evaluate in detail the study area’s archaeological potential; and
- Recommend appropriate strategies for Stage 2 assessment, if necessary.

The Ministry of Citizenship and Multiculturalism (MCM) is asked to review the results and recommendations presented herein and enter the report into the Ontario Public Register of Archaeological Reports. A Record of Indigenous Engagement is included in the project report package in accordance with the requirements set out in Section 7.6.2 of the 2011 S&Gs.

1.2 Historical Context

After a century of archaeological work in southern Ontario, scholarly understanding of the historical usage of the area has become very well-developed. With occupation beginning in the Palaeo period approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Euro-Canadian histories. Section 1.2.1 summarizes the region's settlement history, whereas Section 1.2.2 documents past and present land uses. Two previous archaeological reports containing relevant background information were obtained during the research component of the study. These reports are summarized in Section 1.3.3, and the references (including title, author and PIF number) appear in Section 7.0.

1.2.1 Settlement History

1.2.1.1 Pre-Contact

The Pre-Contact history of the region is lengthy and rich, and a variety of Indigenous groups inhabited the landscape. Archaeologists generally divide this vibrant history into three main periods: Palaeo, Archaic and Woodland. Each of these periods comprise a range of discrete sub-periods characterized by identifiable trends in material culture and settlement patterns, which are used to interpret past lifeways. The principal characteristics of these sub-periods are summarized in Table 1.

Table 1: Pre-Contact Settlement History
(Wright 1972; Ellis and Ferris 1990; Warrick 2000; Munson and Jamieson 2013)

Sub-Period	Timeframe	Characteristics
Early Palaeo	9000–8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers; Utilization of seasonal resources and large territories; Fluted points
Late Palaeo	8400–7500 BC	Holcombe, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted points
Early Archaic	7500–6000 BC	Side-Notched, Corner-Notched (Nettling, Thebes) and Bifurcate traditions; Growing diversity of stone tool types; Heavy woodworking tools appear (e.g., ground stone axes and chisels)
Middle Archaic	6000–2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton Side- and Corner-Notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools
Late Archaic	2500–900 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions; Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-distance trade (marine shells and galena)
Early Woodland	900–400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people
Middle Woodland	400 BC–AD 600	Local Saugeen-like tradition; Others argue for Point Peninsula tradition; Ceramics continue but many are undecorated; Seasonal settlements and resource utilization; Each watershed may have had a unique tradition; Regional patterns poorly understood at this time
Middle/Late Woodland Transition	AD 600–900	Princess Point tradition; Cord roughening, impressed lines and punctate designs on pottery; Adoption of maize horticulture at the western end of Lake Ontario; Oval houses and 'incipient' longhouses; First palisades; Villages with 75 people

Sub-Period	Timeframe	Characteristics
Late Woodland	AD 900–1600	Area occupied by Algonquian-speaking Anishinaabeg and Iroquoian-speaking peoples such as the Pre-Contact Neutral; Early focus on the latter linguistic group identified Glen Meyer, Uren, Middleport and later traditions and tended to emphasize a linear ‘Iroquoian’ developmental sequence; There was likely a close interaction sphere between the two groups, which may have resulted in shared material culture traditions; Pre-Contact Neutral associated with large villages; Some up to 5 ha with 2,500 people; Extensive croplands; Also hamlets, cabins, camps and cemeteries; Fur trade begins ca. 1580; European trade goods appear

Although Iroquoian-speaking populations tended to leave a much more obvious mark on the archaeological record and are therefore emphasized in the Late Woodland entries above, it must be understood that Algonquian-speaking populations also represented a significant presence in southern Ontario. Due to the sustainability of their lifeways, archaeological evidence directly associated with the Anishinaabeg remains elusive, particularly when compared to sites associated with the more sedentary agriculturalists. Many artifact scatters in southern Ontario were likely camps, chipping stations or processing areas associated with the more mobile Anishinaabeg, utilized during their travels along the local drainage basins while making use of seasonal resources. This part of southern Ontario represents the ancestral territory of various Indigenous groups, each with their own land use and settlement pattern tendencies.

1.2.1.2 Post-Contact

The arrival of European explorers and traders at the beginning of the 17th century triggered widespread shifts in Indigenous lifeways and set the stage for the ensuing Euro-Canadian settlement process. Documentation for this period is abundant, ranging from the first sketches of Upper Canada and the written accounts of early explorers to detailed township maps and lengthy histories. The Post-Contact period can be effectively discussed in terms of major historical events; the principal characteristics associated with these events are summarized in Table 2.

Table 2: Post-Contact Settlement History
(Smith 1846; WTPH 1887; Coyne 1895; Lajeunesse 1960; Ellis and Ferris 1990; Surtees 1994; Hammerburg 2008; AO 2024)

Historical Event	Timeframe	Characteristics
Early Exploration	Early 17 th century	Brûlé explores southern Ontario in 1610/11; Champlain travels through in 1613 and 1615/1616, making contact with a number of Indigenous groups (including the Algonquin, Huron-Wendat and other First Nations); European trade goods become increasingly common and begin to put pressure on traditional industries
Increased Contact and Conflict	Mid- to late 17 th century	Conflicts between various First Nations during the Beaver Wars result in numerous population shifts; European explorers continue to document the area, and many Indigenous groups trade directly with the French and English; ‘The Great Peace of Montreal’ treaty established between roughly 39 different First Nations and New France in 1701
Fur Trade Development	Early to mid-18 th century	Growth and spread of the fur trade; Peace between the French and English with the Treaty of Utrecht in 1713; Ethnogenesis of the Métis; Hostilities between French and British lead to the Seven Years’ War in 1754; French surrender in 1760
British Control	Mid- to late 18 th century	<i>Royal Proclamation</i> of 1763 recognizes the title of the First Nations to the land; Numerous treaties subsequently arranged by the Crown; First land cession under the new protocols is the Seneca surrender of the west side of the Niagara River in 1764; The Niagara Purchase (Treaty 381) in 1781 included this area

Historical Event	Timeframe	Characteristics	
Loyalist Influx	Late 18 th century	United Empire Loyalist influx during and after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; Between the Lakes Purchase completed with the Mississaugas in 1784 and confirmed in 1792 (Treaty 3); <i>Constitutional Act</i> of 1791 creates Upper and Lower Canada	
County Development	Late 18 th to mid-19 th century	Became part of Lincoln County's 'Fourth Riding' in 1792; Became part of the Niagara District in 1798; Welland Canal was a major feature, conceived by W.H. Merritt and opened in 1829; Welland County formed from the southeastern part of Lincoln County in 1845; Independent after the abolition of the district system in 1849	
Township Formation	Late 18 th to early 19 th century	Willoughby	First settler was likely M. Gonder in 1779; About 10 families of United Empire Loyalists arrived in 1784; Surveyed in 1787; First farms established along the road from Chippawa to Fort Erie beside the river; Oldest families included the Warrens, Gilmores, Wintermutes, Ashbaughs and Hesheys, among others; Many farms lost during the War of 1812; Population was approximately 450 by 1817; Little land cleared beyond the waterfront until ca. 1830; Influx of German settlers ca. 1830 who acquired small farms; Navy Island formed part of the township and was used as a headquarters during the Rebellion of 1837
		Bertie	Stockade and post established by the French near Fort Erie ca. 1750; Fort Erie established by the British near the shoreline in 1764; Township surveyed sporadically beginning in the 1780s; First settled by United Empire Loyalists (mainly Butler's Rangers) in 1784; 10 families obtained 200-acre free grants; Foundations of new Fort Erie laid ca. 1806; The scene of many battles during the War of 1812; Most farmers abandoned their land to avoid the conflict, but many farms were restored by 1817; Bertie had a population of 1,600 and contained 200 houses, a Quaker church and six schools at that time
Township Development	Mid-19 th to early 20 th century	Willoughby	Population reached 895 by 1841 (a mixture of Canadians, Americans, English, Swiss and Germans); 6,085 ha taken up by 1846, with 2,301 ha under cultivation; Two sawmills in operation at that time; Traversed by the Erie & Ontario Railway (1867) and the Canada Southern Railway's Montrose Branch (1883); Population surpassed 1,100 by 1885, with three mills in operation (grist, saw and planning); Principal communities at Black Creek and Chippawa
		Bertie	Population reached 2,318 by 1841; 13,484 ha taken up by 1846, with 5,058 ha under cultivation; Two grist mills and seven saw mills in operation at that time; Traversed by the Buffalo, Brantford & Goderich/Buffalo & Lake Huron Railway (1853), Erie & Ontario Railway (1864), the Great Western Railway's Canada Air Line (1873) and Canada Southern Railway (1873); Village of Fort Erie incorporated in 1857; Fenian Raids occurred in 1866; Principal community was Fort Erie, with smaller settlements at Ridgeway, Stevensville and Victoria

1.2.2 Past and Present Land Use

1.2.2.1 Overview

During Pre-Contact and Early Contact times, the vicinity of the study area would have comprised a mixture of coniferous trees, deciduous trees and open areas. Indigenous communities would have managed the landscape to some degree. During the late 18th and early 19th centuries, United Empire Loyalists and Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural and settlement purposes. The study area was located within community of Douglastown and southwest of the historical community of Black Creek. The land use at the time

of assessment can be classified as a mixture of infrastructural, residential, recreational and undeveloped green space.

1.2.2.2 Black Creek

The community of Black Creek developed along the banks of the waterway named after the dark colour of its water. The earliest settlers included the Bakers, Beams, Gonders and Morningstars. Mr. Beam, for example, took up 800 acres here ca. 1797. Robert Ingram kept the first store, and there were three hotels in operation by 1842. The post office opened in 1854. I.H. Allen arrived in 1849 and established his first mill in 1855. This was replaced by a larger steam mill in 1866, which burned down in 1886. Black Creek was also the site of an extensive grain market with the United States. The arrival of the Erie & Ontario Railway (later the Erie & Niagara Branch of the Canada Southern Division of the Michigan Central Railroad) in 1867 played a key role in the settlement's development. The settlement had one common school, one or two churches and two or three general stores by 1876. Timber was a major export to American ports, and Allen's products were utilized in ship and dock building at Buffalo. By 1887, the settlement contained a post office, a general store and a wagon and blacksmith shop (WTPH 1887:384–385; Hammerburg 2008:xii).

1.2.2.3 Douglastown

Throughout the 19th century, the area associated with Douglastown was predominantly an unincorporated agricultural landscape. Several taverns were established in the area during the 1840s. The modern community of Douglastown was developed in the 1950s as a residential development adjacent to the Queen Elizabeth Expressway, previously within Willoughby Township, Welland County, prior to the establishment of the Regional Municipality of Niagara in 1970 (Mika and Mika 1977).

1.2.2.4 Mapping and Imagery Analysis

In order to gain a general understanding of the study area's past land uses, two historical settlement maps, one topographic map and three aerial images were examined during the research component of the study. Specifically, the following resources were consulted:

- *Tremaines' Map of the Counties of Lincoln and Welland, Canada West* (1862) (OHCMP 2019);
- *The Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.* (1876) (MU 2001);
- A topographic map from 1907 (OCUL 2021); and
- Aerial images from 1934, 1954, 1965 and 1972 (BU 2021).

The limits of the study area are shown on georeferenced versions of the consulted historical resources in Map 2–Map 6. The study area traversed parts of six lots within Bertie and Willoughby Townships as well as several roads and watercourses. A summary of the identified historical occupants appears in Table 3.

Table 3: Occupation History

Township	Lot	Concession	1862	1876
Bertie	16	9 Niagara River	A. Beam	J. F. Beam
	16	10 Niagara River	Rich Kirkpatrick (West) R. Ingrum (East)	Jacob Danner
Willoughby	22	Broken Front on Niagara River and Adjoining Township	A. Beam	Samuel Backer
	23		S. Danner	Samuel Danner
	19	Broken Front on Niagara River Front Upper End of Grand Island	H. Beam	H. J. Beam
	20		H. J. Beam	

Tremaines' Map of the Counties of Lincoln and Welland, Canada West (1862) depicts the study area bisected by present-day Townline Road. One homestead is illustrated on the south side of Townline Road within Lot 23, Broken Front Concession. Black Creek is shown traversing the eastern portions of the study area (Map 2).

The *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.* (1876) depicts two residences within the study area; one residence is located adjacent to Black Creek within the property of Jacob Danner on Lot 16, Concession 10, and a second residence is located within the property of J.F. Beam on Lot 16, Concession 9, in the eastern portion of the study area (Map 3).

The topographic map from 1907 indicates that study area was included the roadways of present-day Townline Road, Black Creek Trail and Black Creek/Netherby Road and was bounded by Black Creek in the east (Map 4). One wood (black) residence is depicted in the eastern portion of the study area, to the south of Townline Road. The aerial imagery from 1934 depicts the study as having largely unchanged since the 1907 topographic mapping and is comprised of agricultural fields (Map 5). The 1954 aerial image depicts the construction of the QEW, the establishment of the residential community of Douglastown to the northeast, and the construction of several structures within the eastern portion of the study area along Townline Road. The study area remains largely unchanged between 1965 and 1972 but by 2000, the mobile home park was established, now the present-day Black Creek Retirement community (Map 6).

1.3 Archaeological Context

The Stage 1 assessment (property inspection) was conducted on April 9, 2024 under PIF #P1106-0041-2024. ARA utilized an Samsung Galaxy S23 with a built-in GPS/GNSS receiver during the investigation (UTM17/NAD83). The limits of the study area were confirmed using project-specific GIS data translated into GPS points for reference in the field, in combination with aerial imagery showing physical features in relation to the subject lands.

The archaeological context of any given study area must be informed by 1) the condition of the property as found (Section 1.3.1), 2) a summary of registered or known archaeological sites located within a minimum 1 km radius (Section 1.3.2) and 3) descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the property (Section 1.3.3).

1.3.1 Condition of the Property

The study area lies within the deciduous forest region, which is the southernmost forest region in Ontario and is dominated by agricultural and urban areas. This region generally has the greatest diversity of tree and vegetation species, while at the same time having the lowest proportion of forest. It has most of the tree and shrub species found in the Great Lakes–St. Lawrence forest (e.g., white pine, red pine, hemlock, white cedar, yellow birch, sugar and red maples, basswood and red oak), and also contains black walnut, butternut, tulip, magnolia, black gum, many types of oaks, hickories, sassafras and red bud (MNRF 2024).

In terms of local physiography, the subject lands fall within the Haldimand Clay Plain. This region occupies all of the Niagara Peninsula above the escarpment and covers an area of roughly 3,500 km². The plain itself consists of a series of parallel clay belts deposited during the time of proglacial Lake Warren. Although this area was once completely submerged, the till is not completely buried by stratified clay and it comes to the surface on low morainic ridges in the north (Chapman and Putnam 1984:156–159).

According to the Ontario Soil Survey for Welland County, the study area originally consisted of Welland clay in the northwest and southeast with Bottom Land along the watercourse. Welland clay consists of dark greyish to reddish brown clay over compact, mottled, reddish brown gritty clay and is characterized by few stones, a smooth to undulating topography and fair to poor drainage. Bottom Land, on the other hand, comprises low-lying land with variable texture that are subject to occasional flooding and are characterized by a smooth topography and variable drainage (OAC 1935). During the later survey for the Regional Municipality of Niagara, the soils within the study area do not appear to have been mapped (Kingston and Presant 1989: Sheet 7).

The subject lands fall within the Black Creek drainage basin, which is under the jurisdiction of the Niagara Peninsula Conservation Authority (NPCA 2021). It is traversed by Black Creek Wetland Complex, Black Creek and three tributaries of Black Creek and is situated 1.5 km southwest of Niagara River and 1.6 km west of a tributary of Niagara River.

At the time of assessment, the study area consisted of roadways, ditches, overgrown areas, agricultural fields, woodlots, manicured lawns, residential buildings, construction yards and a mobile home park. No unusual physical features were encountered that affected the results of the Stage 1 assessment.

1.3.2 Registered or Known Archaeological Sites

The Ontario Archaeological Sites Database and the Ontario Public Register of Archaeological Reports were consulted to determine whether any registered or known archaeological resources occur within a 1 km radius of the study area. The available search facility returned 27 registered sites located within at least a 1 km radius (the facility returns sites in a rectangular area, rather than a radius, potentially resulting in results beyond the specified distance). No unregistered sites were identified within a 1 km radius of the study area. The sites are summarized in Table 4.

Table 4: Registered or Known Archaeological Sites

Borden No. / ID No.	Site Name / Identifier	Time Period	Affinity	Site Type	Distance from Study Area
AfGs-12	River Trail 1	Pre-Contact	Indigenous	Findspot	>1 km
AfGs-13	River Trail 2	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-14	River Trail 3	Woodland, Middle	Indigenous	Findspot	>1 km
AfGs-15	River Trail 4	Pre-Contact	Indigenous	Findspot	>1 km
AfGs-16	River Trail 5	Pre-Contact	Indigenous	Scatter	300 m–1 km
AfGs-17	River Trail 6	Pre-Contact	Indigenous	Findspot	300 m–1 km
AfGs-18	River Trail 7	Pre-Contact	Indigenous	Findspot	300 m–1 km
AfGs-19	Jessop	Archaic, Late	Indigenous	Camp/Campsite	300 m–1 km
AfGs-20	River Trail 9	Post-Contact; Woodland, Late	Indigenous, Euro-Canadian, Iroquoian	Findspot	300 m–1 km
AfGs-21	River Trail 10	Pre-Contact	Indigenous	Scatter	300 m–1 km
AfGs-22	River Trail 11	Pre-Contact	Indigenous	Findspot	300 m–1 km
AfGs-23	River Trail 12	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-24	River Trail 13	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-25	River Trail 14	Pre-Contact	Indigenous	Findspot	300 m–1 km
AfGs-26	River Trail 15	Pre-Contact	Indigenous	Findspot	300 m–1 km
AfGs-27	River Trail	Archaic, Late	Indigenous	Camp/Campsite	300 m–1 km
AfGs-28	Baker Road	Archaic, Late	Indigenous	Camp/Campsite	300 m–1 km
AfGs-122	Black Creek 1	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-123	Black Creek 2	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-124	Black Creek 3	Pre-Contact	Indigenous	Scatter	300 m–1 km
AfGs-125	Black Creek 4	Archaic, Late	Indigenous	Findspot	300 m–1 km
AfGs-126	Black Creek 5	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-127	Black Creek 6	Pre-Contact	Indigenous	Scatter	>1 km
AfGs-128	Black Creek 7	Pre-Contact	Indigenous	Camp/Campsite	>1 km
AfGs-145	-	Post-Contact; Pre-Contact	Indigenous, Euro-Canadian	Scatter	300 m–1 km
AfGs-146	-	Pre-Contact	Indigenous	Camp/Campsite	>1 km
AfGs-147	-	Pre-Contact	Indigenous	Findspot	50 m–300 m

None of these previously identified sites are located within or immediately adjacent to the subject lands; accordingly, they have no potential to traverse the study area. AfGr-147 is located within 300 m of the study area, however, and must be considered as a relevant feature of archaeological potential. The remaining sites represent more distant archaeological resources.

1.3.3 Previous Archaeological Work

A review of available archaeological management plans and/or other archaeological potential mapping was undertaken to inform the assessment process. Specifically, the Regional Municipality of Niagara's *Archaeological Management Plan* was examined for information that could influence the choice of fieldwork techniques or recommendations. The associated mapping indicates that the entire study area was a mixture of archaeological potential and no archaeological potential (Map 7).

Reports documenting assessments conducted within the subject lands and assessments that resulted in the discovery of sites within adjacent lands were also sought during the research component of the study. In order to ensure that all relevant past work was identified, an investigation was

launched to identify reports involving assessments within 50 m of the study area. The investigation determined that there are seven available reports documenting previous archaeological fieldwork within the specified distance. The relevant results and recommendations are summarized below as required by Section 7.5.8 Standards 4–5 of the 2011 S&Gs (Map 8).

1.3.3.1 QEW Structural Rehabilitation of 12 Structures (Stage 1)

In September 2012, a Stage 1 assessment was conducted by Archeoworks Inc. (Archeoworks) as part of a Detail Design and Class Environmental Assessment Study for the structural rehabilitation of 12 bridge structures along the Queen Elizabeth Way, under PIF #P334-255-2012. A portion of the assessed area traverses the eastern edge of the study area. The investigation was focused on the Townline Road bridge over the Queen Elizabeth Expressway and determined the study area to have been disturbed by the existing bridge structure. No further work was recommended for the overlapped areas (Archeoworks 2014).

1.3.3.2 QEW Structure Replacements (Stage 1)

In November 2012, a Stage 1 assessment was conducted by URS Canada Inc. (URS) as part of the Class Environmental Assessment (EA) and Preliminary Design study for the proposed replacement of seven structures along the Queen Elizabeth Highway (QEW) corridor in the Niagara Region and was conducted under PIF # P123-121-2012 (URS 2014). A portion of the assessed area traverses the eastern part of the study area. The investigation identified much of the overlapped section within the study area as retaining archaeological potential, with the exception of disturbed areas associated with Townline Road and its rights-of-way. Areas of archaeological potential were recommended for further work (URS 2014).

1.3.3.3 QEW Structure Replacements (Stage 2)

In November 2013, a Stage 2 assessment was conducted by URS as part of the proposed replacement and rehabilitation of seven structures along the Queen Elizabeth Expressway, adjacent to the Townline Road Bridge, including areas approximately 50 metres to the east of the study area. The Stage 2 assessment determined that the area was predominantly composed of permanent waterbodies, with the remainder being disturbed soils (URS 2015).

1.3.3.4 Netherby Road at Townline Road (Stage 1-2)

In April 2019, a Stage 1-2 assessment was conducted within the eastern portion of the study area, fronting Townline Road. The assessment was conducted by Detritus Consulting Ltd. (Detritus) in advance of a proposed property severance at Netherby Road and Townline Road, under PIF # P389-0425-2019. The study area was subject to a combination of test pit survey at intervals of 5 m and visual inspection. No archeological resources were identified during the field survey, and as such, the assessed area was not recommended for further work (Detritus 2019: 18)

1.3.3.5 Archaeological Assessment of 3033 Townline Road (Stage 1-2)

In November 2020, a Stage 1-2 assessment was conducted within a portion of the study area at the southwest corner of the intersection of Townline Road and Black Creek Trail. The assessment was conducted by Lincoln Environmental Consulting Corp. (LEC) in preparation for a planning permit, under PIF # P1289-0005-2020. The study area was subject to a combination of test pit survey at intervals of 5 m and visual inspection. No archeological resources were identified during the field survey, and as such, the assessed area was not recommended for further work (LEC 2021).

1.3.3.6 Part of 0 Townline Road, Part 1 Additional Parcel (Stage 1-2)

In October 2020, a Stage 1-2 assessment was conducted within the eastern portion of the study area for lands adjacent to the Queen Elizabeth Expressway. The assessment was conducted by Detritus in advance of a proposed property severance at 0 Townline Road, under PIF #P389-0499-2020. The study area was subject to test pit survey at intervals of 5 m. No archeological resources were identified, and as such, the assessed area was not recommended for further work (Detritus 2021a).

1.3.3.7 Netherby Road at Townline Road (Stage 1)

In March 2021, a Stage 1 assessment was conducted for a property north of of Townline Road at the eastern edge of the study area. Detritus conducted the assessment in advance of a proposed development within the study area under PIF #P017-0900-2021. Stage 1 determined that much of the assessed area was subject to previous disturbance but recommended a Stage 2 assessment to confirm the disturbance (Detritus 2021b).

2.0 STAGE 1 BACKGROUND STUDY

2.1 Background

The Stage 1 assessment involved background research to document the geography, history, previous archaeological fieldwork and current land condition of the study area. This desktop examination included research from archival sources, archaeological publications and online databases. It also included the analysis of a variety of historical maps and aerial imagery. The results of the research conducted for the background study are summarized below.

With occupation beginning approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Post-Contact histories (Section 1.2.1). Artifacts associated with Palaeo, Archaic, Woodland and Early Contact traditions are well-attested in the Town of Fort Erie, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The presence of 27 previously identified sites in the surrounding area demonstrates the desirability of this locality for early settlement (Section 1.3.2). The investigation confirmed that none of these sites extend into the subject lands. Background research identified seven areas of previous assessment within the study area (Section 1.3.3).

The natural environment of the study area would have been attractive to both Indigenous and Euro-Canadian populations as a result of its proximity to Black Creek, Beaver Creek and the Niagara River. The areas of Welland clay would have been acceptable for agriculture, and the diverse local vegetation would have encouraged settlement throughout Ontario's lengthy history. Euro-Canadian populations would have been particularly drawn to the historically surveyed thoroughfares of Townline Road as well as the proximity to Black Creek.

In summary, the background study included an up-to-date listing of sites from the Ontario Archaeological Sites Database (within at least a 1 km radius), the consideration of previous local archaeological fieldwork (within at least a 50 m radius), the analysis of historical maps (at the most detailed scale available) and the study of aerial imagery. ARA, therefore, confirms that the standards for background research set out in Section 1.1 of the 2011 S&Gs were met.

2.2 Field Methods (Property Inspection)

In order to gain first-hand knowledge of the geography, topography and current condition of the study area, a property inspection was conducted on April 9, 2024. Environmental conditions were ideal during the inspection, with clear skies, bright lighting and a temperature of 17 °C. ARA, therefore, confirms that fieldwork was carried out under weather and lighting conditions that met the requirements set out in Section 1.2 Standard 2 of the 2011 S&Gs.

The study area was subjected to systematic spot-checking, beginning in the southwest and continuing in a clockwise manner. The inspection confirmed that all surficial features of archaeological potential were present where they were previously identified and did not result in the identification of any additional features of archaeological potential not visible on mapping (e.g., relic water channels, patches of well-drained soils, etc.).

The inspection determined that parts of the study area were disturbed by past construction activities. No natural features (e.g., permanently wet lands, sloped lands, overgrown vegetation, heavier soils than expected, etc.) or significant built features (e.g., heritage structures, landscapes, plaques, monuments, cemeteries, etc.) that would affect assessment strategies were identified.

2.3 Analysis and Conclusions

In addition to relevant historical sources and the results of past archaeological assessments, the archaeological potential of a property can be assessed using its soils, hydrology and landforms as considerations. Section 1.3.1 of the 2011 S&Gs recognizes the following features or characteristics as indicators of archaeological potential: previously identified sites, water sources (past and present), elevated topography, pockets of well-drained sandy soil, distinctive land formations, resource areas, areas of Euro-Canadian settlement, early transportation routes, listed or designated properties, historic landmarks or sites, and areas that local histories or informants have identified with possible sites, events, activities or occupations.

The Stage 1 assessment resulted in the identification of several features of archaeological potential in the vicinity of the study area (Map 9; SD Map 1). The closest and most relevant indicators of archaeological potential (i.e., those that would affect survey interval requirements) include several primary water sources (i.e. Black Creek, Beaver Creek and Niagara River), 27 previously identified sites (e.g., AfGr-147), one historical community (Black Creek), two historical roadway (Townline Road and Black Creek Trail), and multiple historical structure localities. Background research did not identify any features indicating that the study area has the potential for deeply buried archaeological resources.

Although proximity to a feature of archaeological potential is a significant factor in the potential modelling process, current land conditions must also be considered. Section 1.3.2 of the 2011 S&Gs emphasizes that 1) quarrying, 2) major landscaping involving grading below topsoil, 3) building footprints and 4) sewage/infrastructure development can result in the removal of archaeological potential, and Section 2.1 states that 1) permanently wet areas, 2) exposed bedrock and 3) steep slopes ($> 20^\circ$) in areas unlikely to contain pictographs or petroglyphs can also be evaluated as having no or low archaeological potential. Areas previously assessed and not recommended for further work also require no further assessment.

The Regional Municipality of Niagara's *Archaeological Management Plan* indicates that the study area retains large areas of archaeological potential (Map 7). However, this modelling was not the result of a property-specific assessment and, therefore, does not fully account for land-use history and current conditions. Four previously assessed areas of no further concern were identified within the study area (Map 8) and do not require re-evaluation. Two additional previously assessed areas were identified that recommended further work. The recommendations of these reports have been incorporated into the current assessment with slight revisions due to subsequent residential developments and changes in methodology (i.e., Marine Checklist for Watercourses).

ARA's visual inspection, coupled with the analysis of historical sources and digital environmental data, resulted in the identification of several areas of no archaeological potential. Specifically, deep land alterations have resulted in the removal of archaeological potential from the established roadways, ditched areas, utilities, berms, driveways and footprints of subsurface foundations

(Image 1–Image 16). Past earth-moving/construction activities clearly impacted these areas, causing significant soil disturbance to a significant depth and severe damage to the integrity of archaeological resources. Black Creek was observed, but archaeological potential modelling for marine contexts is beyond the purview of any land-based assessment (Image 17).

The remainder of the study area has potential for Indigenous and Euro-Canadian archaeological materials or requires test pit survey to confirm disturbance (Image 18–Image 21). The areas of archaeological potential include various grassed areas, scrub lands and wood lots. It seems likely that the Black Creek Retirement community and lands adjacent to the laydown area north of Townline Road were previously impacted, but this could not be verified based on the inspection alone (Image 22–Image 28). Specifically, many of the structures within the mobile home park are situated on concrete pads and lack subsurface foundations. Accordingly, these lands have been categorized as areas of archaeological potential and must be empirically tested to confirm that archaeological potential has been removed.

In summary, the Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential and areas of no archaeological potential. The potential modelling results are presented in Map 10. The study area is depicted as a layer in this map.

3.0 RECOMMENDATIONS

The Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential and areas of no archaeological potential. It is recommended that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 S&Gs, which is anticipated to include the SPS. The areas of no archaeological potential do not require any additional assessment. If any in-water work is planned within the watercourse, the Criteria for Evaluating Marine Archaeological Potential checklist should be consulted.

The agricultural fields must be assessed using the pedestrian survey method at an interval of 5 m. All ground surfaces must be recently ploughed (typically within the month prior to assessment), weathered by one heavy rainfall or several light rains, and provide at least 80% visibility. If archaeological materials are encountered, the transect interval must be decreased to at least 1 m and a close inspection of the ground must be conducted over a minimum of a 20 m radius around the find. This interval must be continued until the full extent of the scatter has been defined.

The grassed areas, scrubland, and woodlots must be assessed using the test pit survey method. A survey interval of 5 m is warranted due to the proximity of the lands to the identified features of archaeological potential.

Given the likelihood that the Black Creek Retirement community and lands adjacent to the laydown area north of Townline Road were previously impacted, a combination of visual inspection and test pit survey should be utilized to confirm the extent of disturbance in accordance with Section 2.1.8 of the 2011 S&Gs. This will allow for the empirical evaluation of the integrity of the soils and the depth of any impacts. If disturbance cannot be confirmed, then a test pit survey interval of 5 m must be maintained.

Each test pit must be excavated into at least the first 5 cm of subsoil, and the resultant pits must be examined for stratigraphy, potential features and/or evidence of fill. The soil from each test pit must be screened through mesh with an aperture of no greater than 6 mm and examined for archaeological materials. If archaeological materials are encountered, all positive test pits must be documented, and intensification may be required.

4.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the 2011 S&Gs requires that the following information be provided for the benefit of the proponent and approval authority in the land use planning and development process:

- This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. 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 MCM, 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* 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 archaeological 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 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*. 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*.
- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar at the Ministry of Public and Business Service Delivery.

5.0 IMAGES



Image 1: Disturbed Lands
(April 9, 2024; Facing Northeast)

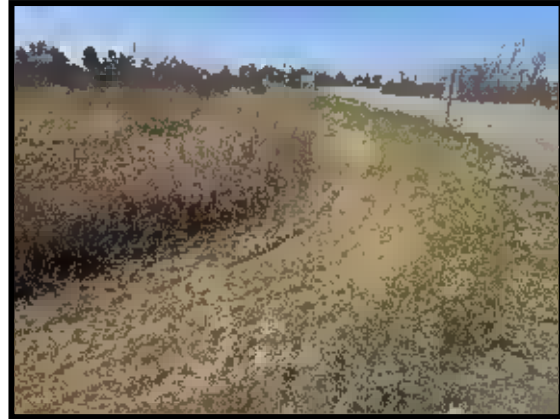


Image 2: Disturbed Lands
(April 9, 2024; Facing Southeast)



Image 3: Disturbed Lands
(April 9, 2024; Facing Northeast)



Image 4: Disturbed Lands
(April 9, 2024; Facing West)



Image 5: Disturbed Lands
(April 9, 2024; Facing East)



Image 6: Disturbed Lands
(April 9, 2024; Facing West)

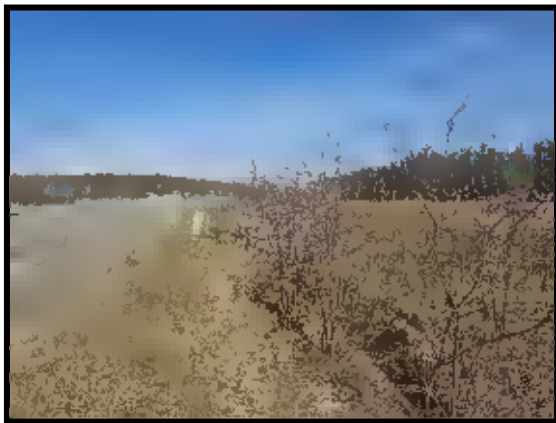


Image 7: Disturbed Lands
(April 9, 2024; Facing Northwest)

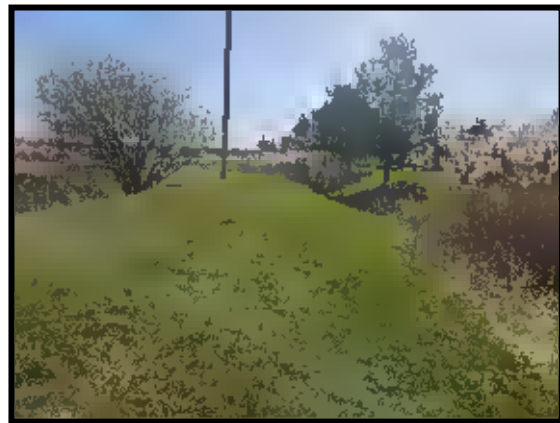


Image 8: Disturbed Lands
(April 9, 2024; Facing East)



Image 9: Disturbed Lands
(April 9, 2024; Facing South)



Image 10: Disturbed Lands
(April 9, 2024; Facing Southeast)



Image 11: Disturbed Lands
(April 9, 2024; Facing Northeast)



Image 12: Disturbed Lands
(April 9, 2024; Facing East)

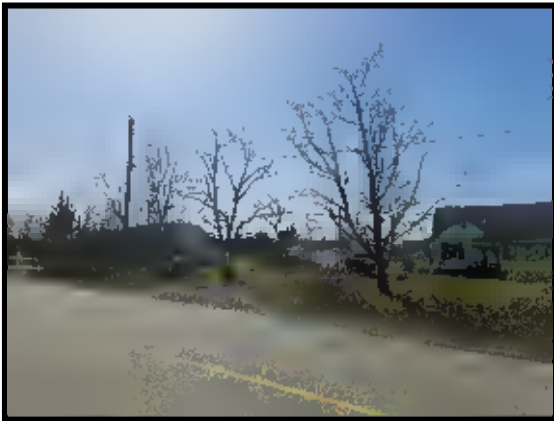


Image 13: Disturbed Lands
(April 9, 2024; Facing Southeast)



Image 14: Disturbed Lands
(April 9, 2024; Facing Southeast)

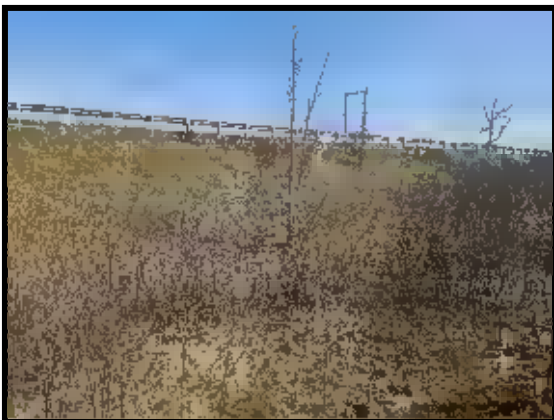


Image 15: Disturbed Lands
(April 9, 2024; Facing Northeast)

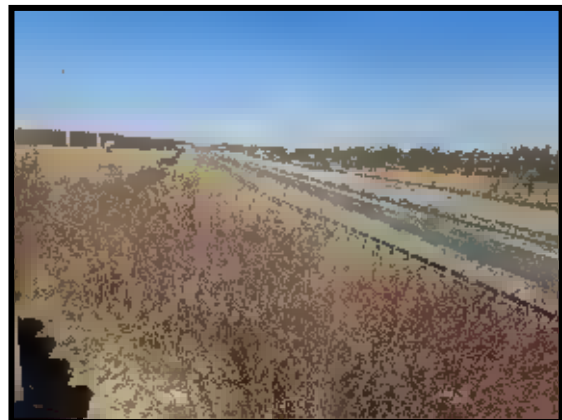


Image 16: Disturbed Lands
(April 9, 2024; Facing Northwest)

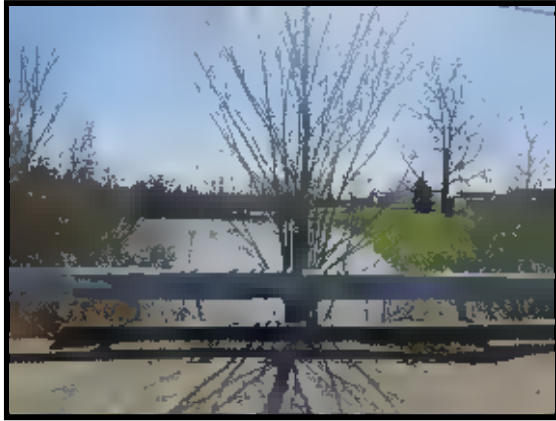


Image 17: Watercourse
(April 9, 2024; Facing East)

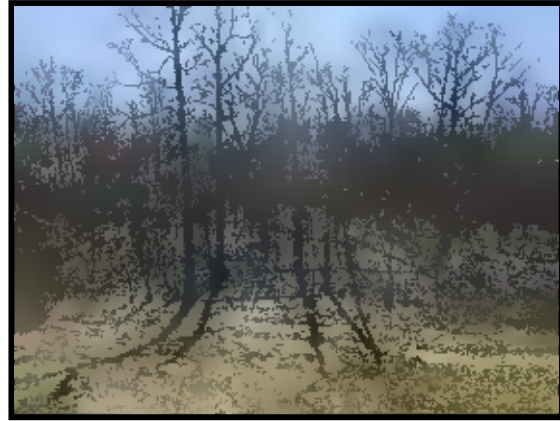


Image 18: Area of Potential
(April 9, 2024; Facing Southeast)

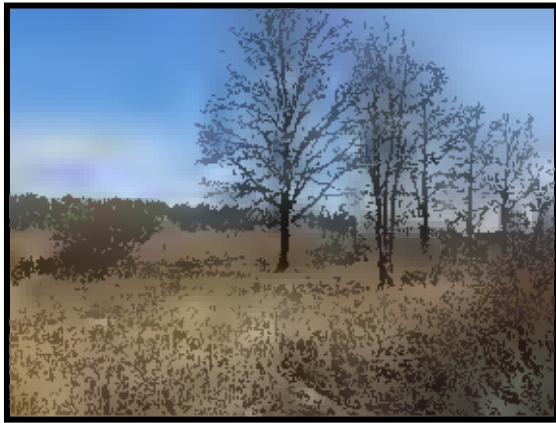


Image 19: Area of Potential
(April 9, 2024; Facing Northeast)

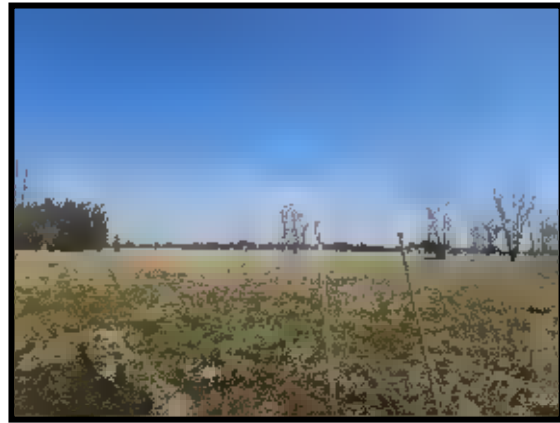


Image 20: Area of Potential
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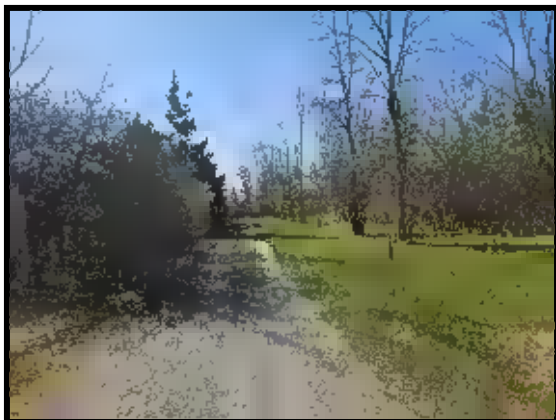


Image 21: Area of Potential
(April 9, 2024; Facing South)



Image 22: Area of Mixed Potential
(April 9, 2024; Facing West)



Image 23: Area of Mixed Potential
(April 9, 2024; Facing Southwest)



Image 24: Area of Mixed Potential
(April 9, 2024; Facing Northeast)



Image 25: Area of Mixed Potential
(April 9, 2024; Facing East)

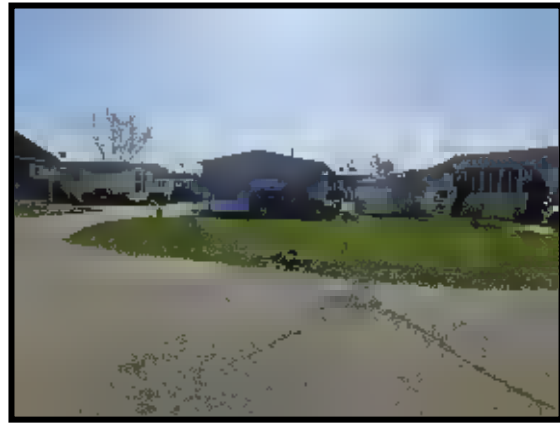


Image 26: Area of Mixed Potential
(April 9, 2024; Facing South)



Image 27: Area of Mixed Potential
(April 9, 2024; Facing Northeast)

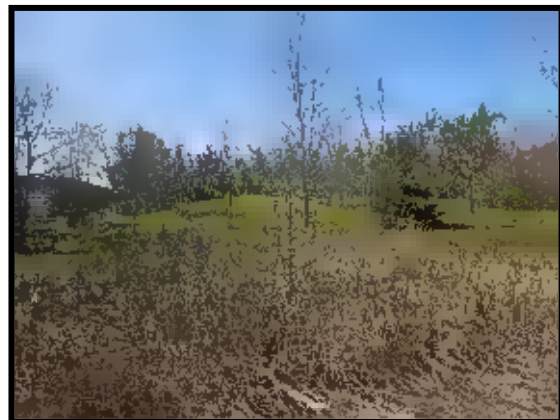
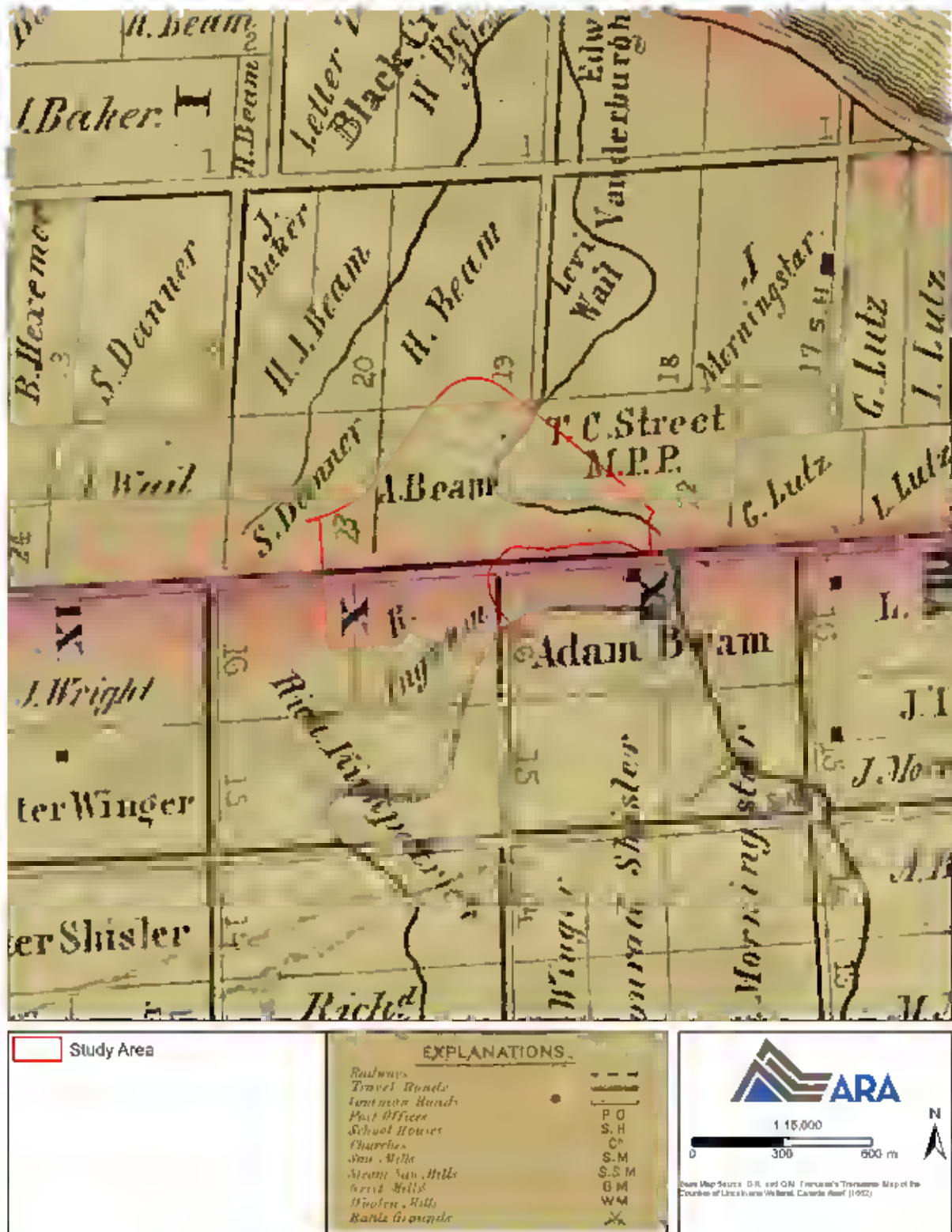


Image 28: Area of Mixed Potential
(April 9, 2024; Facing South)

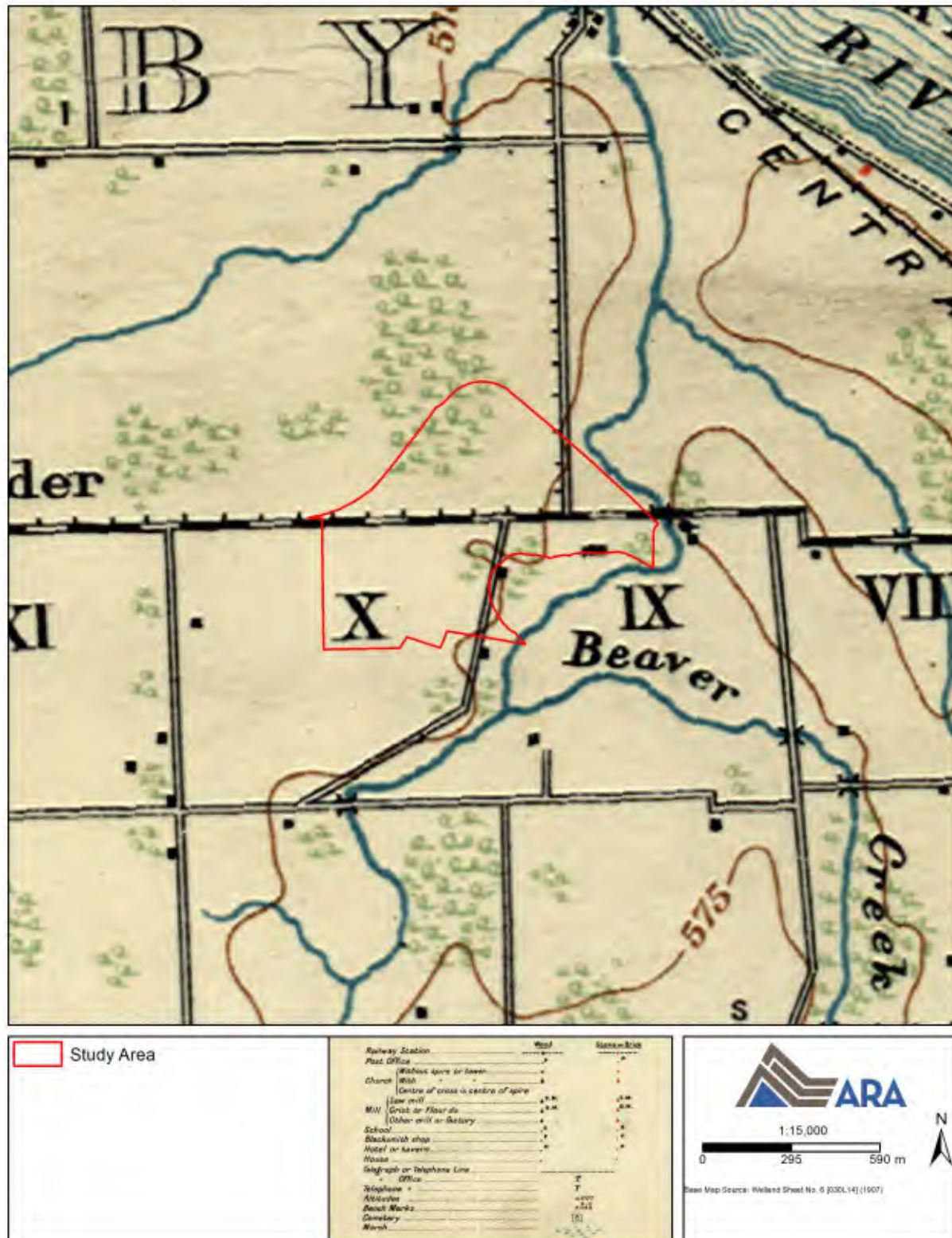
Map 1: Location of the Study Area
(Produced under licence using ArcGIS® software by Esri, © Esri)



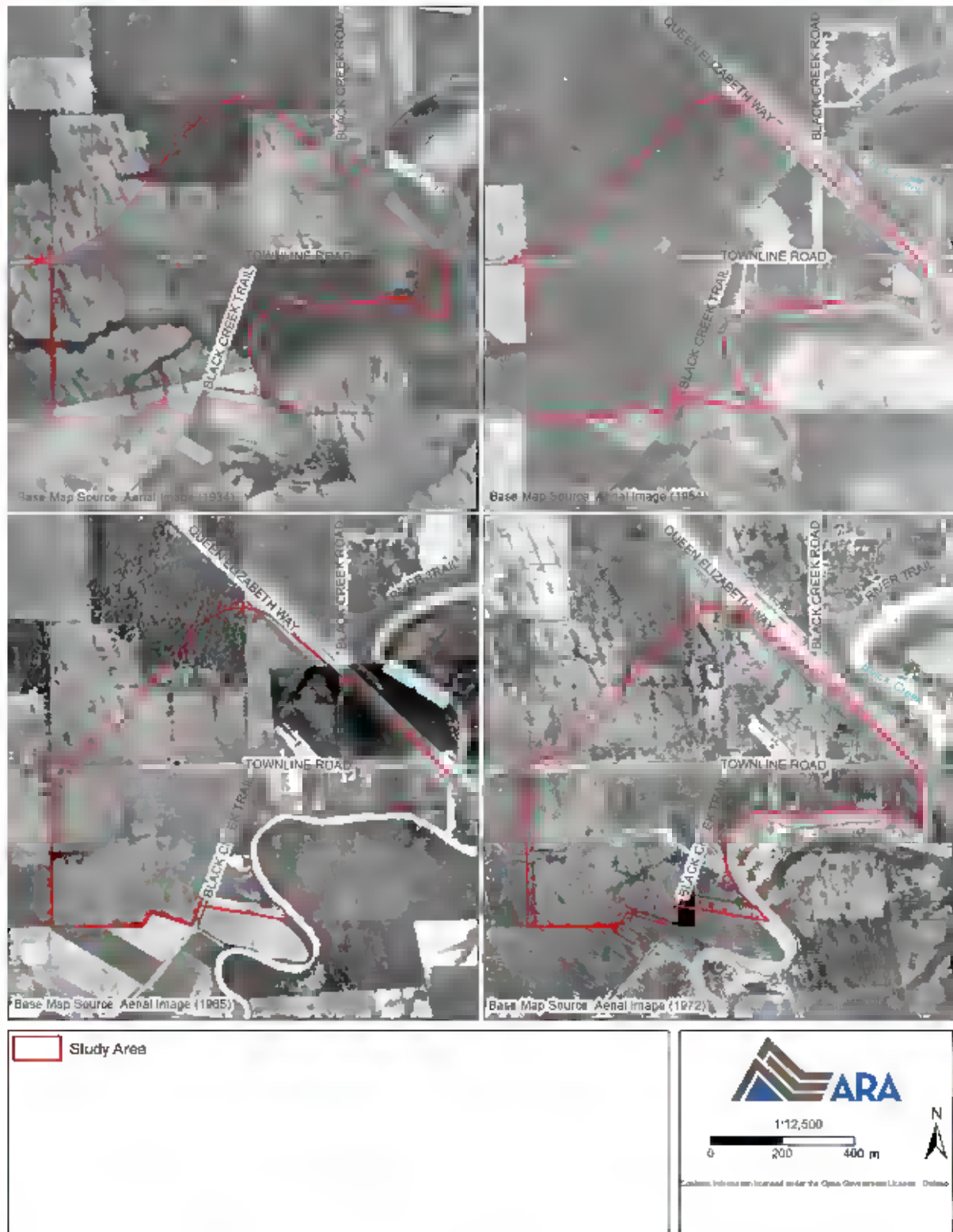
Map 2: Tremaines' Map of the Counties of Lincoln and Welland, Canada West (1862)
(Produced under licence using ArcGIS® software by Esri, © Esri; BU 2024)



Map 3: Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont. (1876)
(Produced under licence using ArcGIS® software by Esri, © Esri; AO 2024)

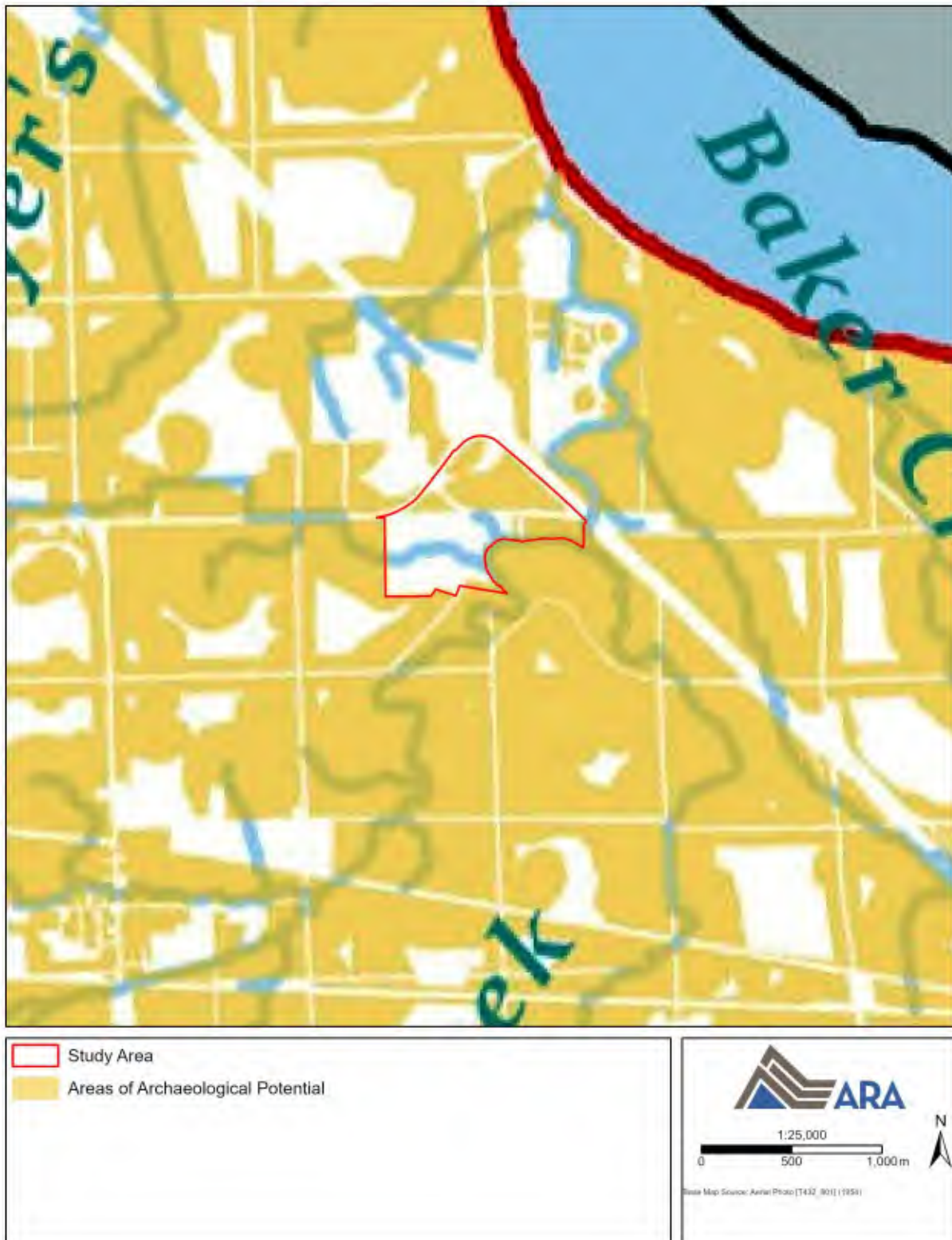


Map 4: Topographic Map (1907)
(Produced under licence using ArcGIS® software by Esri, © Esri; OHCMP 2024)





Map 6: Aerial Image (2000)
(Produced under licence using ArcGIS® software by Esri, © Esri; OCUL 2024)

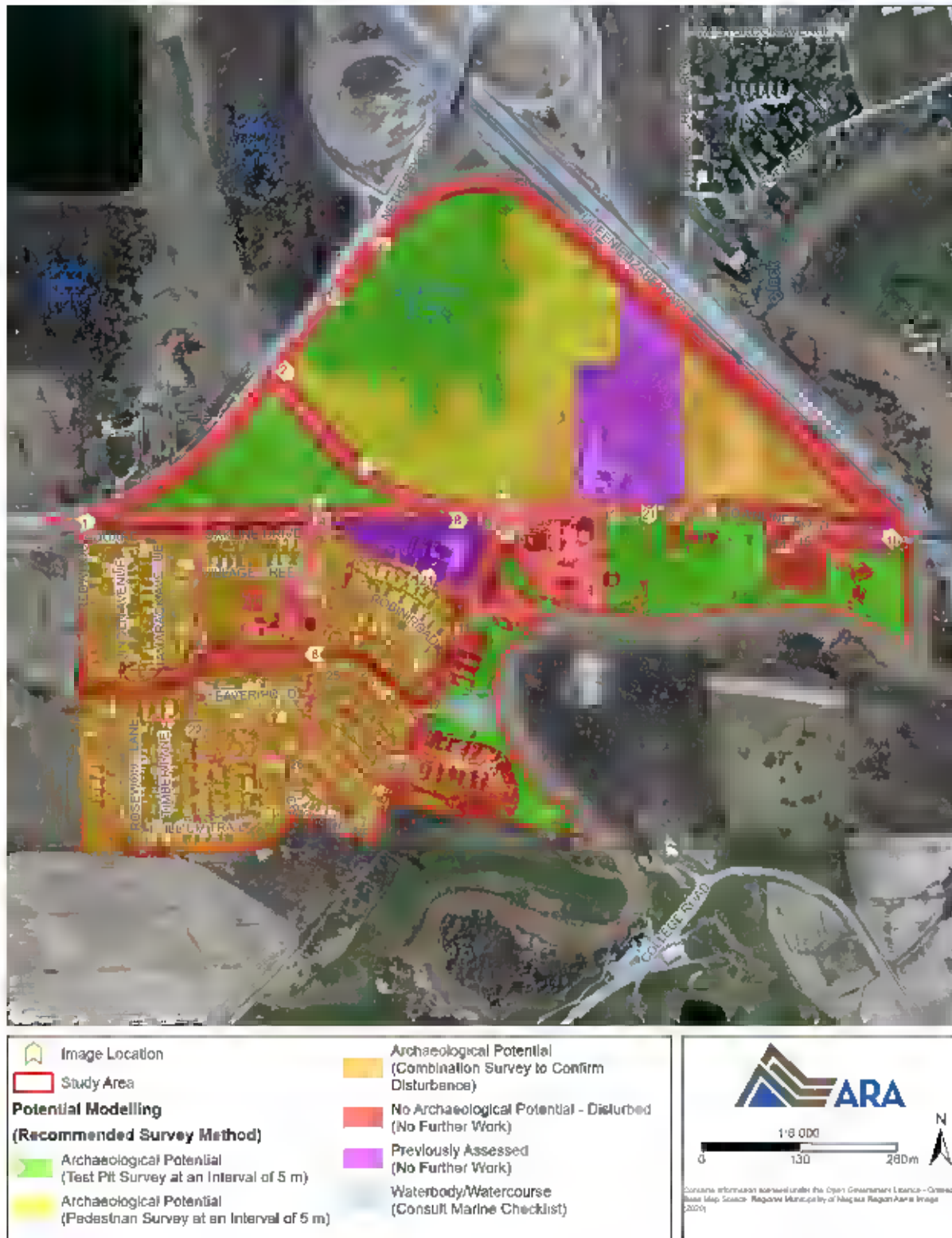


Map 7: Regional Municipality of Niagara's Archaeological Management Plan
(Produced under licence using ArcGIS® software by Esri, © Esri; Niagara Region 2024)



Map 8: Previous Assessments
(Produced under licence using ArcGIS® software by Esri, © Esri)





7.0 BIBLIOGRAPHY AND SOURCES

Archeoworks Inc. (Archeoworks)

2014 *Stage 1 Archaeological Assessment for the Structural Rehabilitation of 12 Structures Queen Elizabeth Way, between Hwy 420 and Fort Erie, GWP 2339-09-00, City of Niagara Falls and Town of Fort Erie, Regional Municipality of Niagara, Ontario.* Archeoworks. PIF # P334-255-2012.

Archives of Ontario (AO)

2024 Access our Collections. Accessed online at:
http://www.archives.gov.on.ca/en/access/our_collection.aspx.

Brock University (BU)

2024 *Map, Data & GIS Library*. Accessed online at: <https://brocku.ca/library/mdgl/>.

Chapman, L.J., and D.F. Putnam

1984 *The Physiography of Southern Ontario, 3rd Edition*. Toronto: Ontario Geological Survey, Special Volume 2.

Coyne, J. H.

1895 *The Country of the Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot*. St. Thomas: Times Print.

Detritus Consulting Ltd. (Detritus)

2019 *Stage 1-2 Archaeological Assessment: Netherby Road at Townline Road, Part 1, Part of Lot 22 Broken Front Concession, Geographic Township of Willoughby, Historical County of Welland, Niagara Region*. Detritus. PIF # P389-0425-2019.

2021a *Stage 1-2 Archaeological Assessment: Part of 0 Townline Road, Part 1 Additional Parcel, Part of Lot 22 Broken Front Concession, Geographic Township of Willoughby, Historical County of Welland, Niagara Region, Ontario*. Detritus. PIF # P389-0499-2020.

2021b *Stage 1 Archaeological Assessment: Netherby Road at Townline Road, Part 2, Parcel D, Parts 2 and 3, Plan 59R-5123 of Lot 22, Adjoining Cross Concession, Geographic Township of Willoughby Now in the Town of Fort Erie, Niagara Region*. Detritus. PIF # P017-0900-2021.

Ellis, C.J., and N. Ferris (editors)

1990 *The Archaeology of Southern Ontario to A.D. 1650*. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Hammerburg Productions (Hammerburg)

2008 *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.* Reprint of 1876 Edition (Toronto: H.R. Page). Toronto: Hammerburg Productions.

Kingston, M.S., and E.W. Presant

1989 *The Soils of the Regional Municipality of Niagara, Volume 1*. Report No. 60 of the Ontario Institute of Pedology. Guelph: Ministry of Agriculture and Food.

Lajeunesse, E.J.

1960 *The Windsor Border Region: Canada's Southernmost Frontier*. Toronto: The Champlain Society.

Lincoln Environmental Consulting Corp. (LEC)

2021 *Stage 1-2 Archaeological Assessment of 3033 Townline Road, in part of Lot 16, Concession 10 Niagara River, Township of Bertie, Regional Municipality of Niagara, County of Welland, Ontario*. LEC. PIF # P1289-0005-2020.

McGill University (MU)

2001 *The Canadian County Atlas Digital Project*. Accessed online at: <http://digital.library.mcgill.ca/countyatlas/default.htm>.

Mika, N. and H. Mika

1977 *Places in Ontario, Their Name Origins and History, Part I: A-E*. Belleville: Mika Publishing Company.

Ministry of Natural Resources and Forestry (MNRF)

2024 *Forest Regions*. Accessed online at: <https://www.ontario.ca/page/forest-regions>.

Munson, M.K., and S.M. Jamieson (editors)

2013 *Before Ontario: The Archaeology of a Province*. Kingston: McGill-Queen's University Press.

Niagara Peninsula Conservation Authority (NPCA)

2023 *Watershed Health*. Accessed online at: <https://npca.ca/watershed-health>.

Niagara Region

2024 *Archaeological Management Plan*. Accessed online at: <https://www.niagararegion.ca/projects/archaeological-management-plan/default.aspx>.

Ontario Agricultural College (OAC)

1935 *Soil Survey Map of County of Welland Province of Ontario*. Soil Survey Report No. 5. Guelph: Ontario Agricultural College.

Ontario Council of University Libraries (OCUL)

2023 *Historical Topographic Map Digitization Project*. Access online at: <https://ocul.on.ca/topomaps/>.

Ontario Historical County Maps Project (OHCMP)

2019 *The Ontario Historical County Maps Project*. Accessed online at: <http://maps.library.utoronto.ca/hgis/countymaps/maps.html>.

Smith, W.H.

1846 *Smith's Canadian Gazetteer: Comprising Statistical and General Information Respecting all Parts of the Upper Province, or Canada West.* Toronto: H. & W. Rowsell.

Surtees, R.J.

1994 Land Cessions, 1763–1830. In *Aboriginal Ontario: Historical Perspectives on the First Nations*, edited by E.S. Rogers and D.B. Smith, pp. 92–121. Toronto: Dundurn Press.

URS Canada Inc. (URS)

2014 *Stage 2 Archaeological Assessment: QEW Structure Replacements, Six Bridges at Black Creek (Fort Erie), Lyons / Tee Creeks (Niagara Falls) Niagara Region, Ontario, G.W.P. 2177-08-00.* URS. PIF # P123-0219-2013.

2015 *Stage 1 Archaeological Assessment: Seven QEW Structure Replacements at Black Creek (Fort Erie), Lyons / Tee Creeks (Niagara Falls) and Seventh Street Louth (St. Catharines), Niagara Region, Ontario, Class Environmental Assessment and Preliminary Design Study G.W.P. 2177-08-00.* URS. PIF # P123-121-2012.

Warrick, G.

2000 The Precontact Iroquoian Occupation of Southern Ontario. *Journal of World Prehistory* 14(4):415–456.

Welland Tribune Printing House (WTPH)

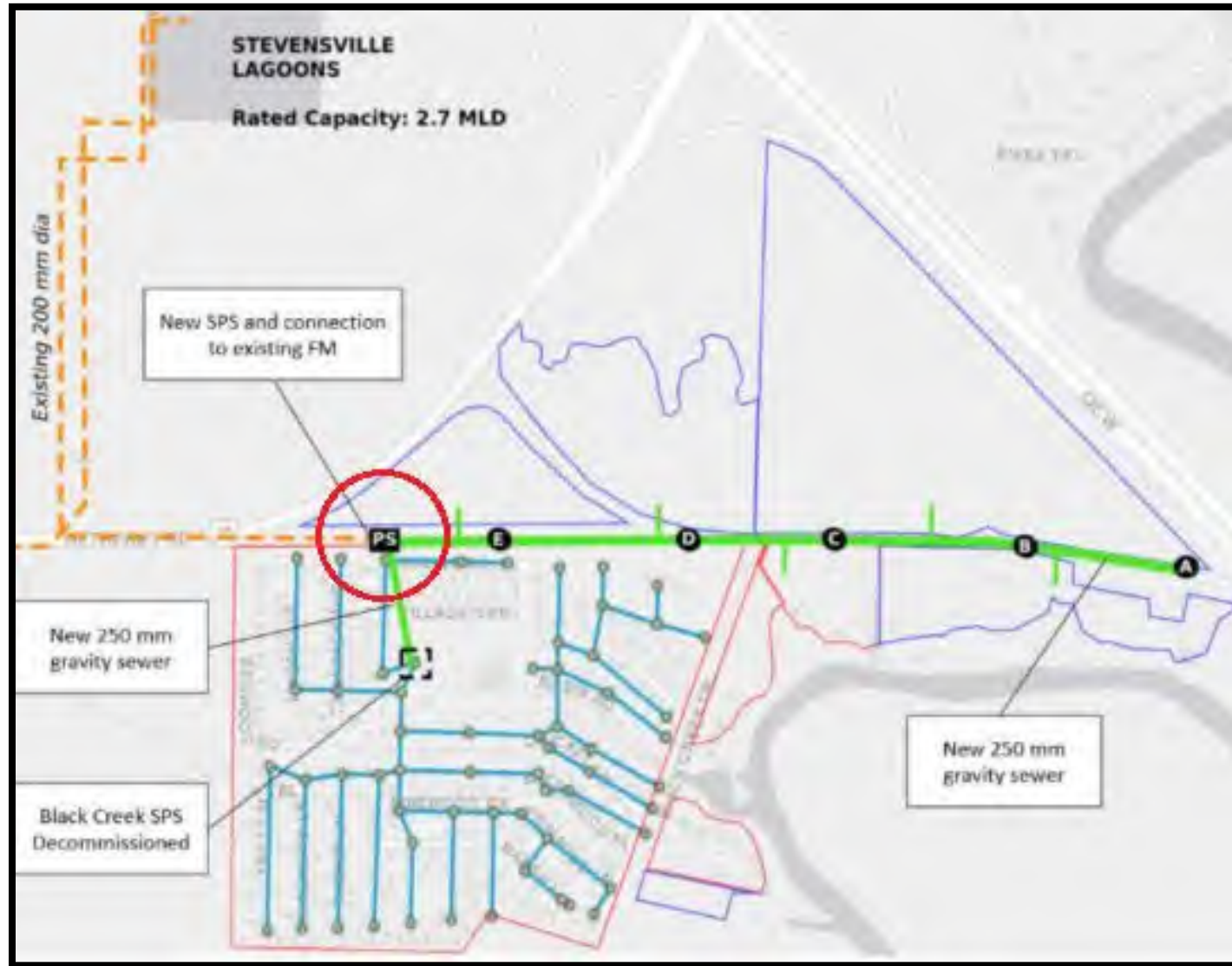
1887 *The History of the County of Welland, Ontario, Its Past and Present.* Welland: Welland Tribune Printing House.

Wright, J.V.

1972 *Ontario Prehistory: An Eleven-Thousand-Year Archaeological Outline.* Archaeological Survey of Canada, National Museum of Man. Ottawa: National Museums of Canada.

APPENDICES

Appendix A: Preferred Option (Courtesy of WT Infrastructure)



Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (437) 339-9325
Email: Sarah.Roe@ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (437) 339-9325
Email: Sarah.Roe@ontario.ca



Jul 29, 2024

Craig Ramsoomair (P1106)
Archaeological Research Associates Ltd.
33 Lawrence Guelph ON N1E5Y4

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment: Townline Road Sanitary Sewer, Part of Lot 16, Concession 9 Niagara River, And Concession 10 Niagara River, Geographic Township of Bertie, Part of Lots 22 and 23, Concession Broken Front On Niagara River and Adjoining Township, Lots 19 and 20, Concession Broken Front on Niagara River Front Upper End of Grand Island, Geographic Township of Willoughby, Former Welland County, Now Town of Fort Erie, Regional Municipality of Niagara, Ontario ", Dated Jun 26, 2024, Filed with MCM on N/A, MCM Project Information Form Number P1106-0041-2024, MCM File Number 0021231

Dear Mr. Ramsoomair:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Jamie Witherspoon, WT Infrastructure
Kelly Walsh, Town of Fort Erie

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

APPENDIX C

Proposed Sanitary Sewer System Layout





KEYPLAN:

NOTE: ALL DIMENSIONS ARE IN mm
UNLESS SPECIFIED OTHERWISE.

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THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK.

THIS DRAWING IS NOT TO BE SCALED.

2	AB	04/26/2024	ISSUED FOR REVIEW
1	DV	12/15/23	ISSUED FOR REVIEW
NO.	BY	DATE	ISSUE / REVISION



WT INFRASTRUCTURE
PRACTICAL INNOVATION

CLIENT:



Our Focus: Your Future

PROJECT NAME:

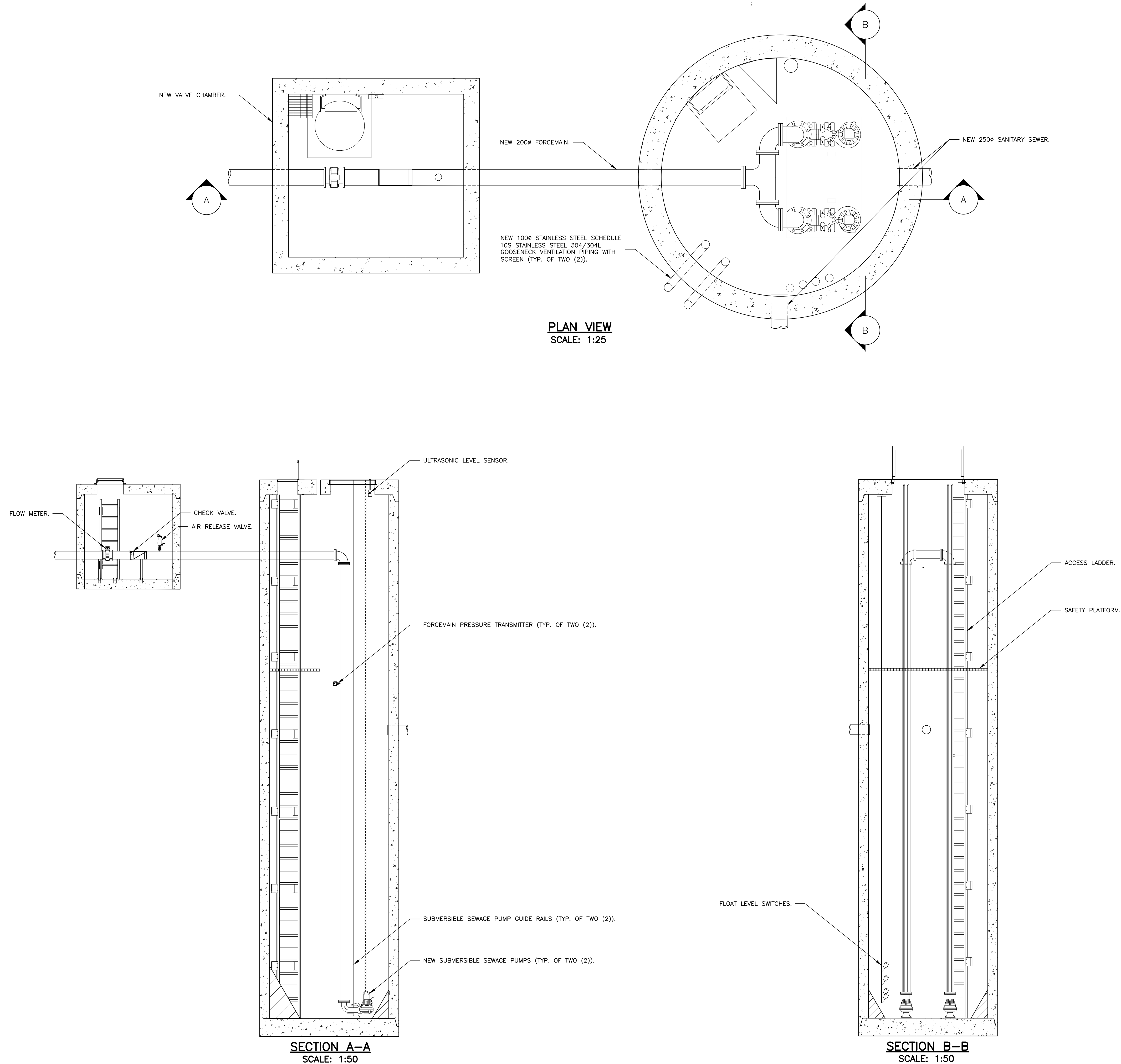
TOWNLINe ROAD SERVICING STUDY

CLIENT REF:

TITLE:

SANITARY SEWER DESIGN ALTERNATIVE A

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DESIGNED BY: JW	DRAWN BY: DV	CHECKED BY: JW	25mm
DRAWING No: P.1			SHEET #: 1 of 2



KEYPLAN:

NOTE: ALL DIMENSIONS ARE IN mm
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THIS DRAWING IS NOT TO BE SCALED.

2	AB	04/26/2024	ISSUED FOR REVIEW
1	DV	12/15/23	ISSUED FOR REVIEW
NO.	BY	DATE	ISSUE / REVISION



PROJECT NAME:
TOWNLINe ROAD SERVICING STUDY

CLIENT REF:
TITLE:
PROPOSED PUMPING STATION
PRELIMINARY DESIGN

PROJECT NO: 22-2054	SCALE: AS SHOWN	DATE: 12-15-2023	IF THIS BAR IS NOT 25mm LONG, ADJUST THE PLOTTING SCALE.
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DRAWING No:	P.2	SHEET #:	1 of 1

APPENDIX D

Stakeholder Contact List

This information is available upon request from the Town of Fort Erie

APPENDIX E

Notice of Commencement



NOTICE OF COMMENCEMENT

Townline Road Servicing Class Environmental Assessment

Contract #: ISE-22P-TRSS

Project Overview

The Town of Fort Erie (Town) has identified the area north and south of Townline Road between Netherby Road and the QEW as a development area and wishes to determine the preferred approach to service the area with water, sanitary and stormwater. The proposed servicing will need to consider existing and proposed development consistent with Town standards. Water servicing is available via an existing Regional Watermain in the project area. The Town of Fort Erie has initiated a Municipal Class Environmental Assessment (Class EA) to evaluate and select preferred solutions to service the study area. These alternatives may include private servicing, communal servicing and/or conveying the wastewater to the Stevensville/Douglastown Wastewater Treatment Facility. For the stormwater system, the options are limited to managing stormwater on each individual parcel or a communal system servicing the study area.



The communal wastewater alternatives along Townline Road are considered a Schedule B project. The communal stormwater management systems are considered a Schedule B or C Class EA due to the potential need to acquire land and the outfall directly to a waterbody. The proposed solutions will be evaluated considering natural, cultural, technical, and economic environment impacts and the preferred solution will be selected in consultation with regulatory agencies, indigenous communities, local residents and stakeholders.

Input from the public, agencies and other stakeholders will be sought throughout the study to identify options to address the study findings and optimize the evaluation process.

For more information, please visit the Town's website at: <https://www.forterie.ca/index.html>

PUBLIC OPEN HOUSE

A Public Open House is being held to gather input from stakeholders. All those interested in the project are invited to attend the Public Open House. Event details will be announced soon.

If you are unable to attend or require further information, please contact, or provide comments to:

Jamie Witherspoon, P.Eng. Project Manager	Kelly M. Walsh, P. Eng. Director, Infrastructure Services
WT Infrastructure Solutions Inc Phone: 1.833.984.6372 ext.101 Jamie.witherspoon@wtinfrastructure.ca	Town of Fort Erie, Phone: 905-871-1600 x.2402 kwalsh@forterie.ca

APPENDIX F

PIC No. 1 - Documentation





Notice of Public Information Centre

Townline Road Servicing Class Environmental Assessment

The Town of Fort Erie (Town) has identified the area north and south of Townline Road between Netherby Road and the QEW as a development area and wishes to determine the preferred approach to service the area with water, sanitary and stormwater. The proposed servicing will need to consider existing and proposed development consistent with Town and Regional standards.



The project area is within the Stevensville/Douglastown wastewater collection system. However, as the municipal sanitary servicing does not extend to all homes in the Town’s urban boundaries, no sanitary or stormwater systems are currently in place on the north side of Townline Road. Water servicing within the project area is available via an existing local Watermain owned by the Town.

The Town of Fort Erie has initiated a Municipal Class Environmental Assessment (Class EA) to evaluate and select preferred solutions to service the study area.

The proposed solutions will be evaluated and prioritized considering natural, cultural, technical and economic environment, and the preferred solution will be selected in consultation with regulatory agencies and the public.

PUBLIC INFORMATION CENTRE

Public consultation to collect feedback on the proposed solutions is an important component of the project. Therefore, the Town of Fort Erie is requesting public input to identify options to address the study findings and optimize the evaluation process. A Public Information Centre is being held to gather input from stakeholders. All those interested in the project are invited to attend the Public Open House. The Public Information Centre No. 1 will be held on:

Thursday, November 2, 2023

From 4:00 pm to 7:00 pm

at Stevensville Memorial Hall, 2508 Stevensville Road, Stevensville, Ontario, ON

If you are unable to attend or require further information, please contact, or provide comments to:

Jamie Witherspoon, P.Eng. Project Manager	Kelly M. Walsh, P. Eng. Director, Infrastructure Services
WT Infrastructure Solutions Inc Phone: 1.833.984.6372 ext.101 Jamie.witherspoon@wtinfrastructure.ca	Town of Fort Erie, Phone: 905-871-1600 x.2402 kwash@forterie.ca



Jamie Witherspoon, P.Eng. – President
Consultant Project Manager
WT Infrastructure Solutions Inc.
jamie.witherspoon@wtinfrastructure.ca

Townline Road Servicing Municipal Class EA

Public Information Centre No. 1
November 2nd, 2023



Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Town of Fort Erie
kwalsh@forterie.ca

WELCOME!

The Town of Fort Erie welcomes you to this Public Information Centre (PIC) so that we can share study objectives, findings to date, alternative solutions and next steps.

What is the purpose of this Public Information Centre?



To present an overview of the Townline Road Servicing Municipal Class EA



To provide information regarding the project scope, identified needs, project opportunities and potential alternatives.



To collect your feedback on the proposed alternatives, assessment process and next steps of this project

Please review the material and provide us with any comments you may have. Staff are available to answer your questions and receive your comments.

We Want to Hear from You! Provide your comments

Submit comments to a member of the project team.

More information including copies of project notices and PIC materials can be found at:

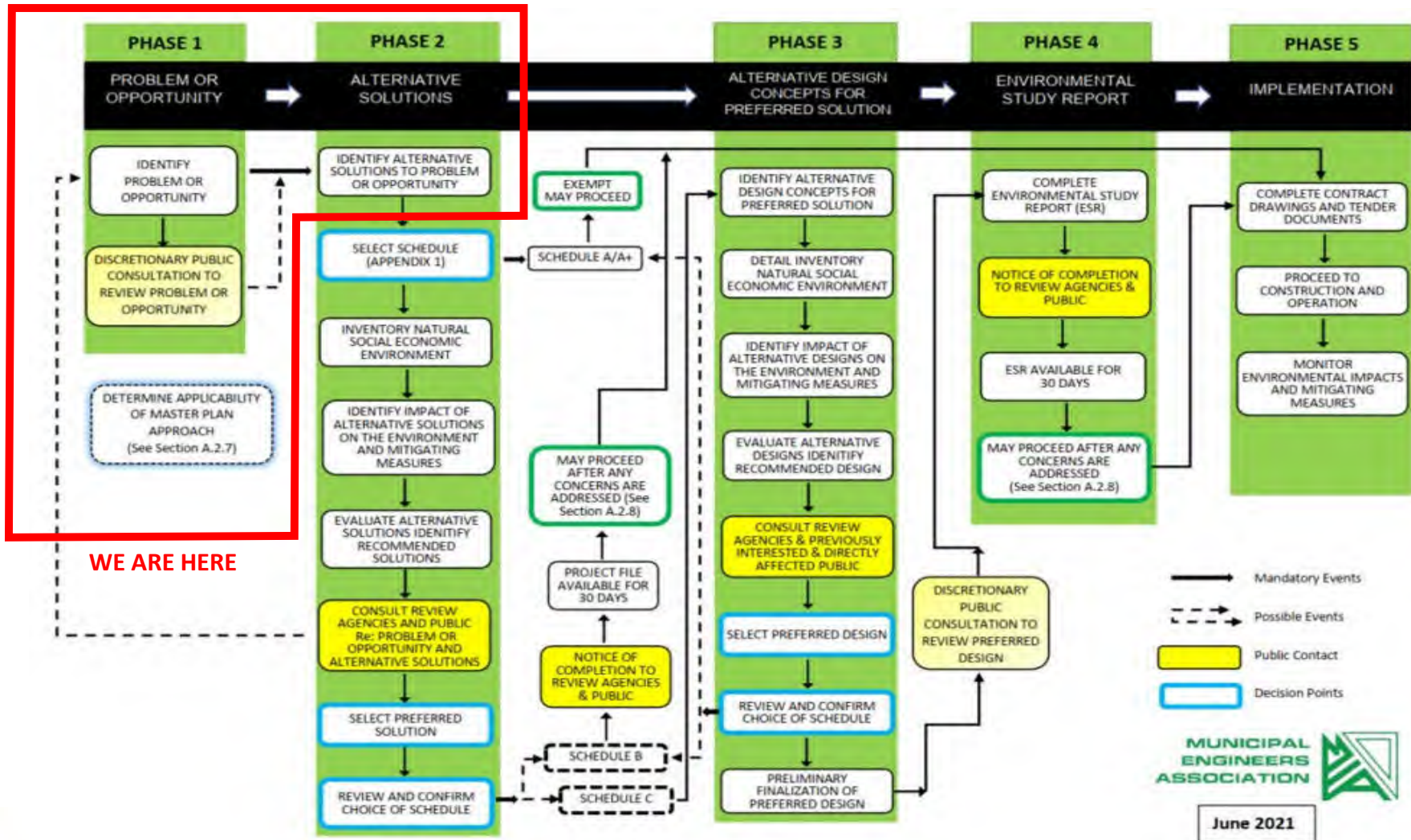
<https://www.forterie.ca/index.html>

Thank you for attending this Public Information Centre!



MUNICIPAL CLASS EA PROCESS

The Town has initiated this Municipal Class EA to evaluate and develop a coordinated and sustainable approach to providing municipal infrastructure for both existing and growth areas within the community. The plan will complete Phase 1 and a Phase 2 of the environmental assessment process. Any Schedule B or C projects resulting from this study will require additional investigations or study to fulfill Class EA requirements.



PROBLEM IDENTIFICATION – EXISTING CONDITIONS

PLANNING

Zoning

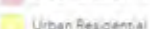
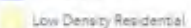
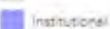
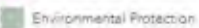
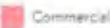
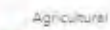
EC Overlay Zone



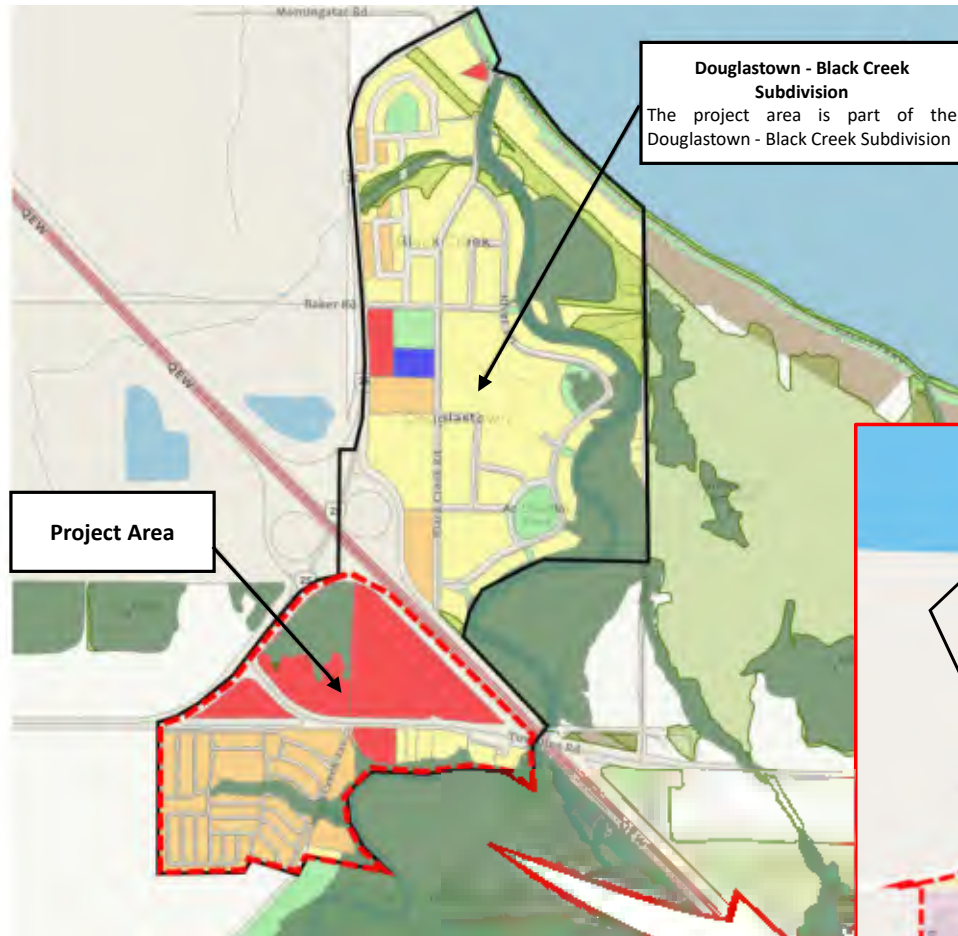
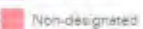
Flood Proofing Areas



Official Plan



Heritage Properties



Douglastown - Black Creek Subdivision
The project area is part of the Douglastown - Black Creek Subdivision

Project Area

Area South of Townline Road

Black Creek Leisure Homes (BCLH) is located on the south side of Townline Road while, east of the Black Creek Trail, there are commercial lands permitted, including a metal fabrication facility in operation since approximately 1975, as well as several detached residential dwellings on private septic systems.

Southwest corner of Townline Road at Netherby Road

This area (1.9 ha) is identified as a commercial area. Currently, this area is zoned for automotive service station uses.

QEW-Townline Road-Netherby Road Area

This area (17.39 ha), which contains a Provincially Significant Wetland of approximately 4.0 ha, is identified as a commercial area intended to provide service and cater to major highway traffic. Its location at the full interchange with Netherby Road provides good visibility and exposure to the Queen Elizabeth Way (QEW) yet has remained undeveloped to date.

PROJECT AREA



Provincially Significant Wetland

Townline Rd

Black Creek Trail

PROBLEM IDENTIFICATION – PROPOSED DEVELOPMENT

- Long-term care facility/retirement home south of the Provincially Significant Wetland.
- Medical building along Townline Road.

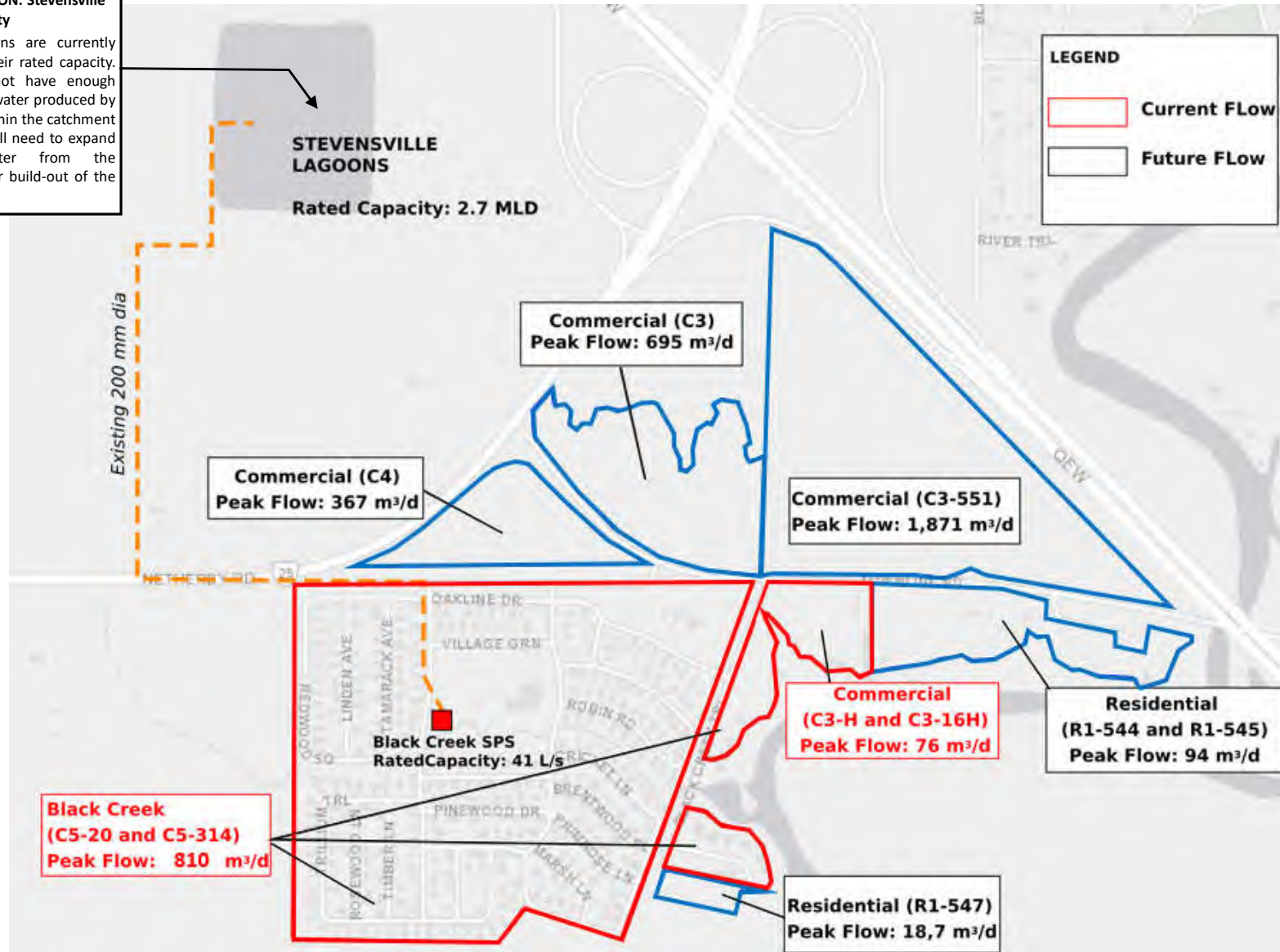
Public Storage facility along the QEW

A convenience store, gasoline bar, and a restaurant with a drive thru.
This proposal would change the existing Highway Commercial (C3-551) zoning to a new site-specific Highway Commercial (C3) Zone that permits a gasoline bar on the site.

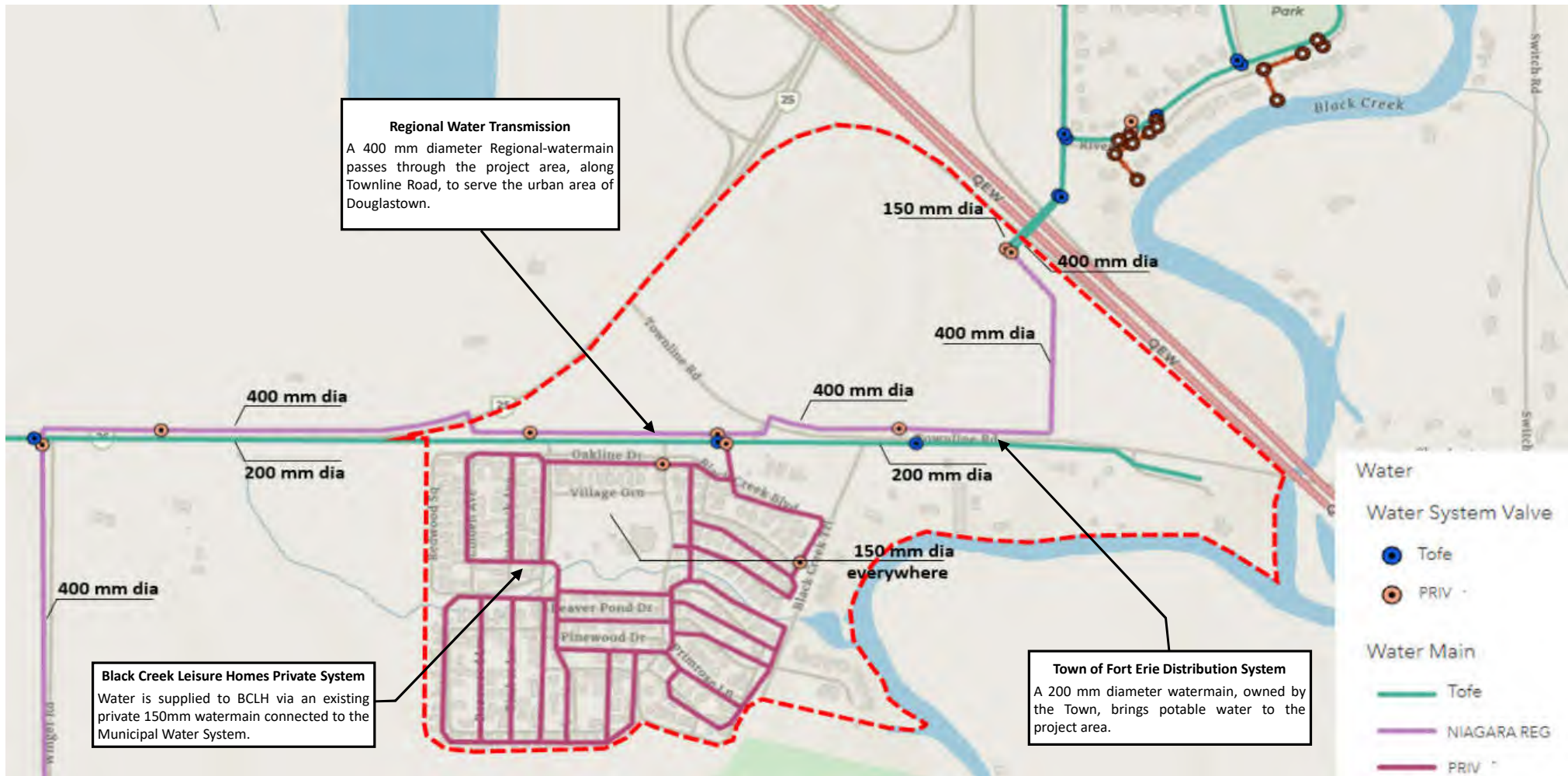
PROBLEM IDENTIFICATION – SANITARY FLOW DEMAND

PROBLEM IDENTIFICATION: Stevensville Sewage Lagoons capacity

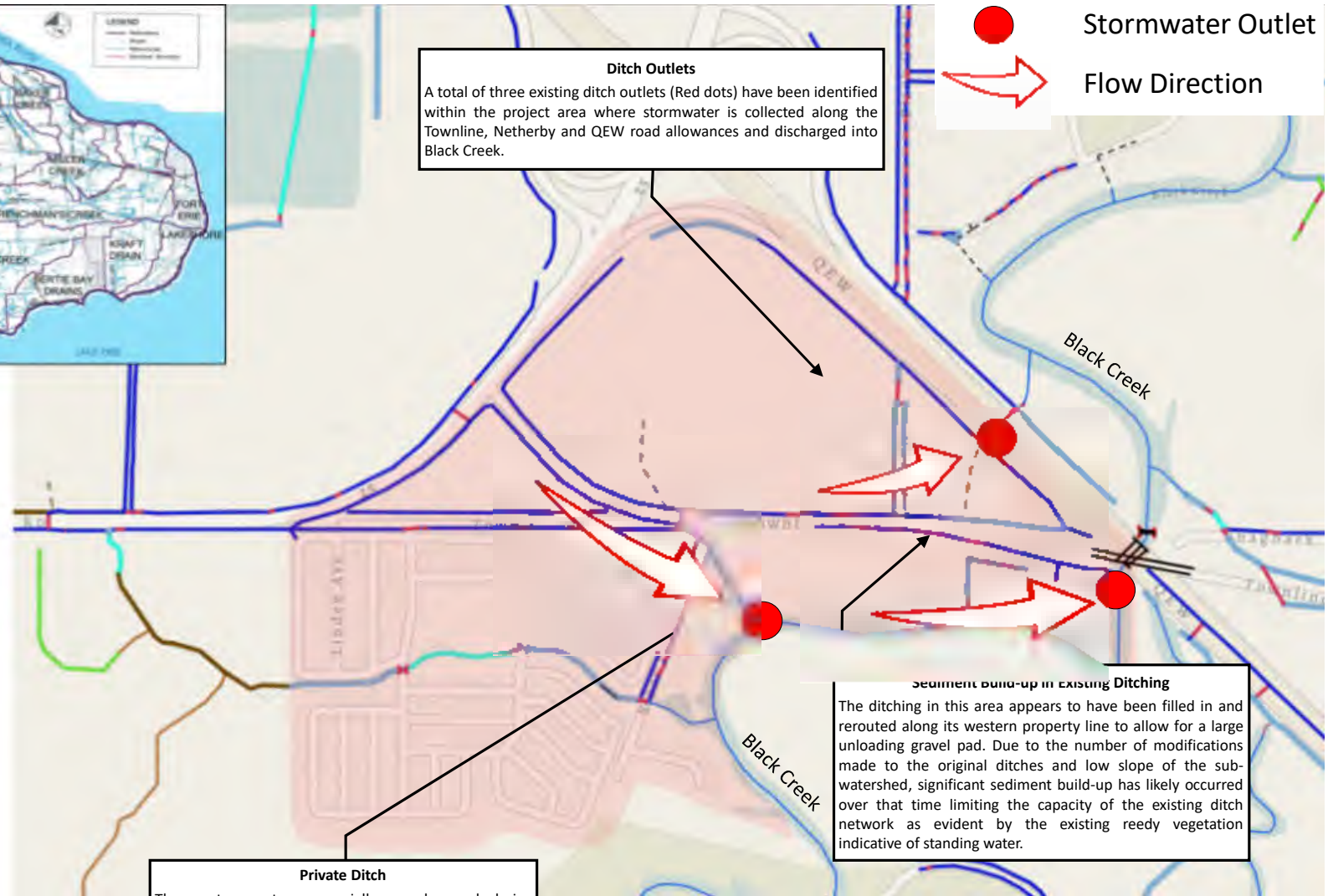
The Stevensville lagoons are currently operating at 70% of their rated capacity. The Lagoons would not have enough capacity to treat wastewater produced by future development within the catchment area. Niagara Region will need to expand or divert wastewater from the Stevensville Lagoons for build-out of the area.



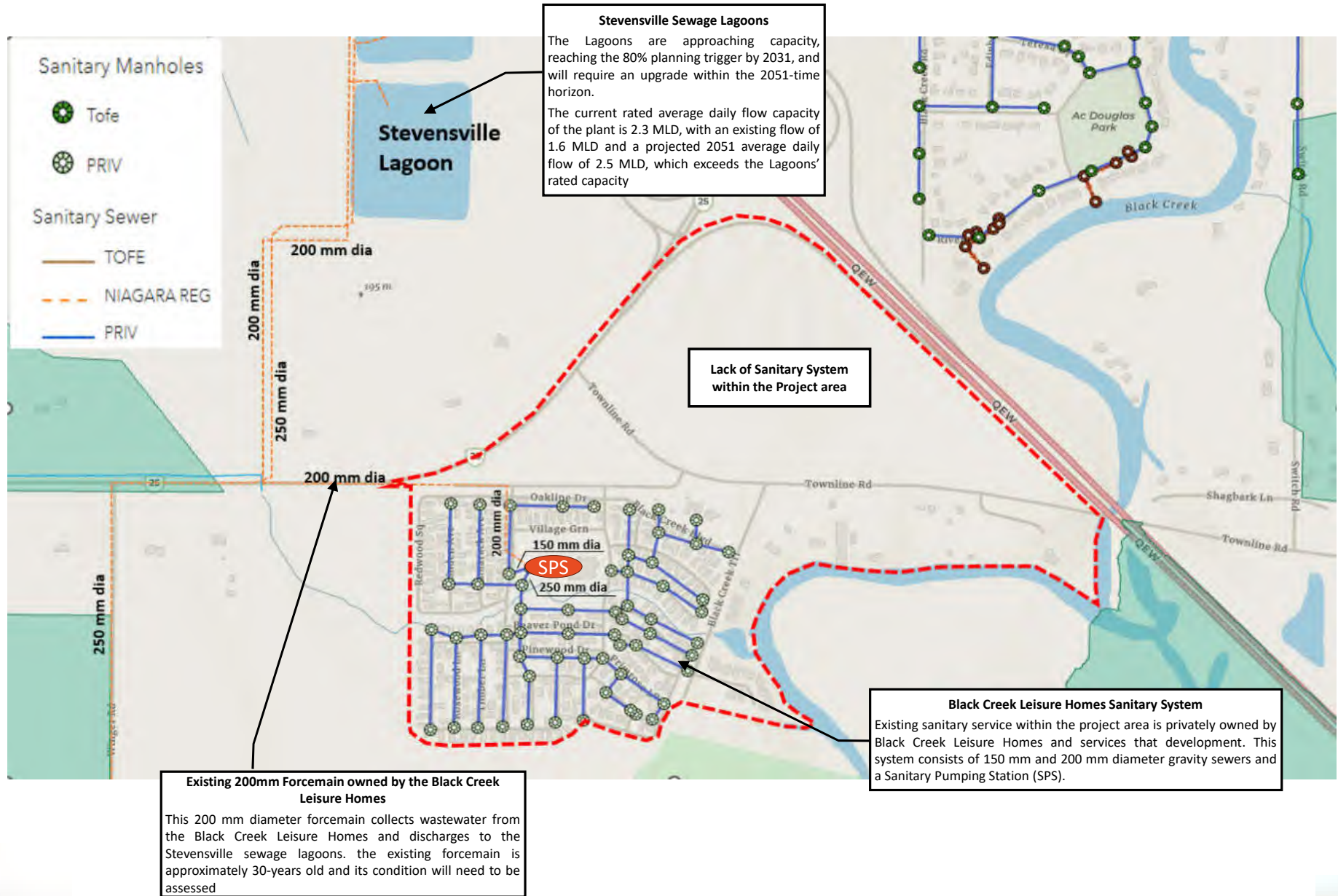
PROBLEM IDENTIFICATION – WATER SERVICING



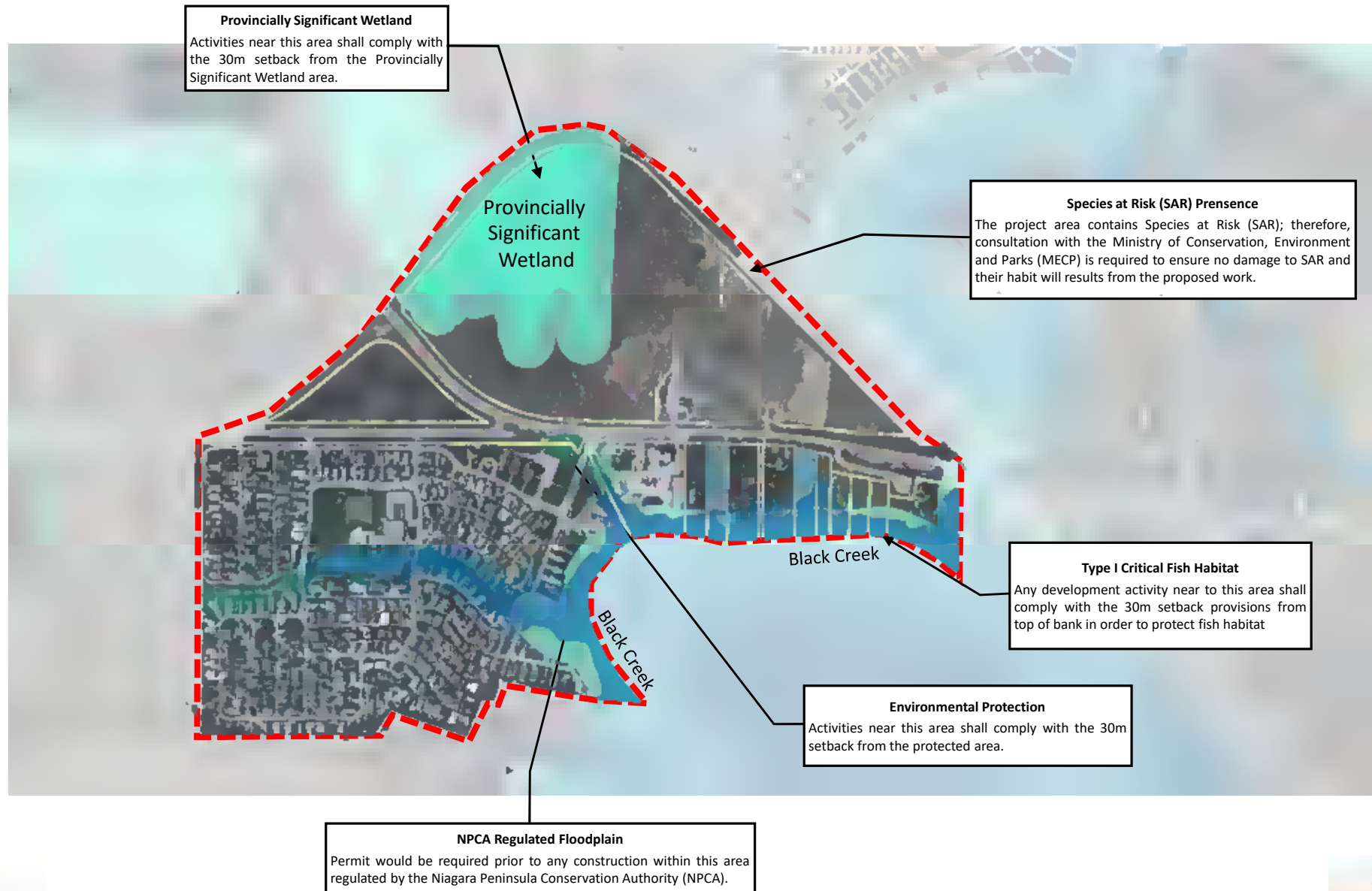
PROBLEM IDENTIFICATION – STORMWATER SERVICING



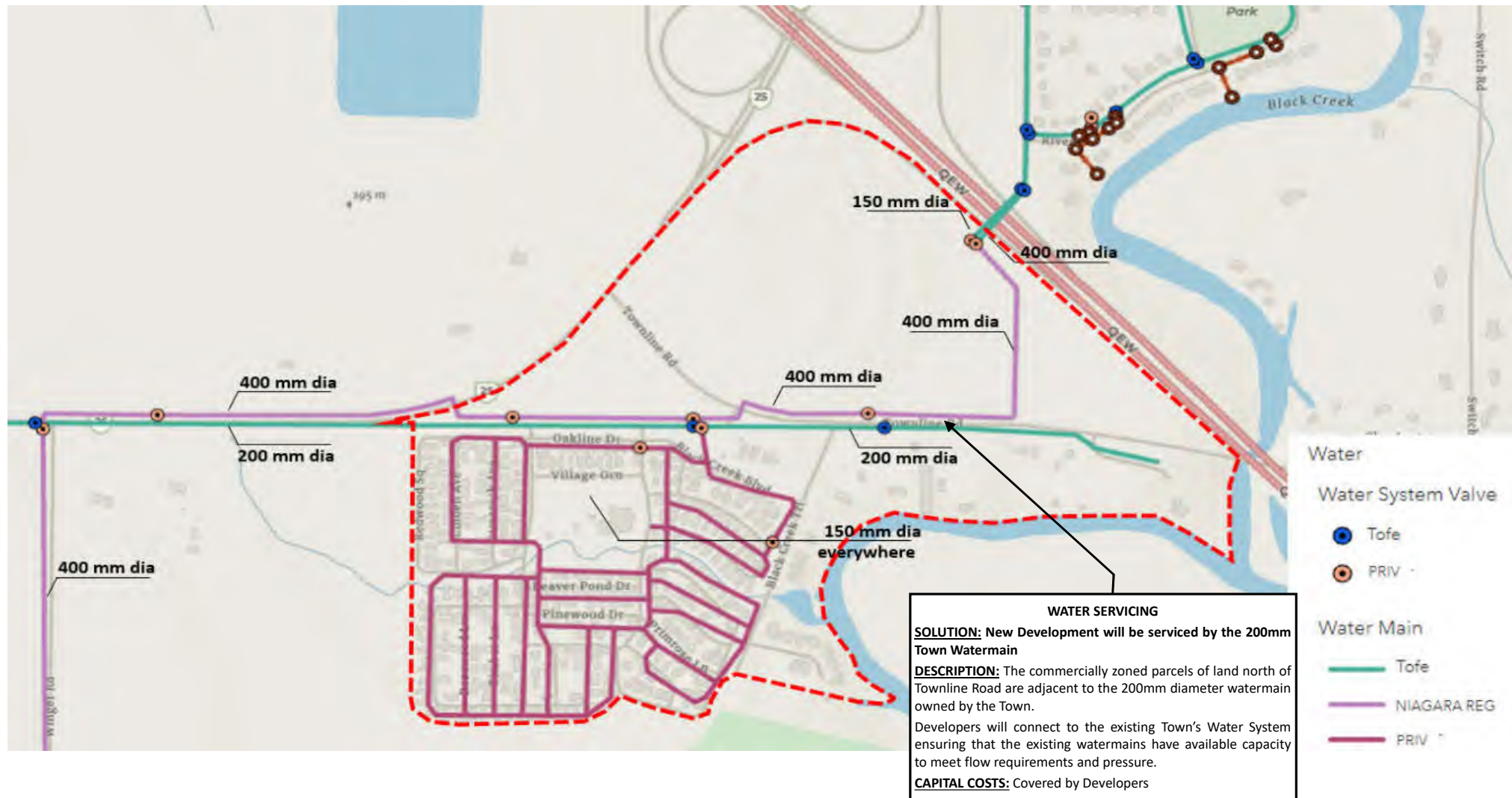
PROBLEM IDENTIFICATION – SANITARY SERVICING



PROBLEM IDENTIFICATION – NATURAL/SOCIAL ENVIRONMENTAL CONDITIONS



ALTERNATIVE SOLUTIONS – WATER SERVICING

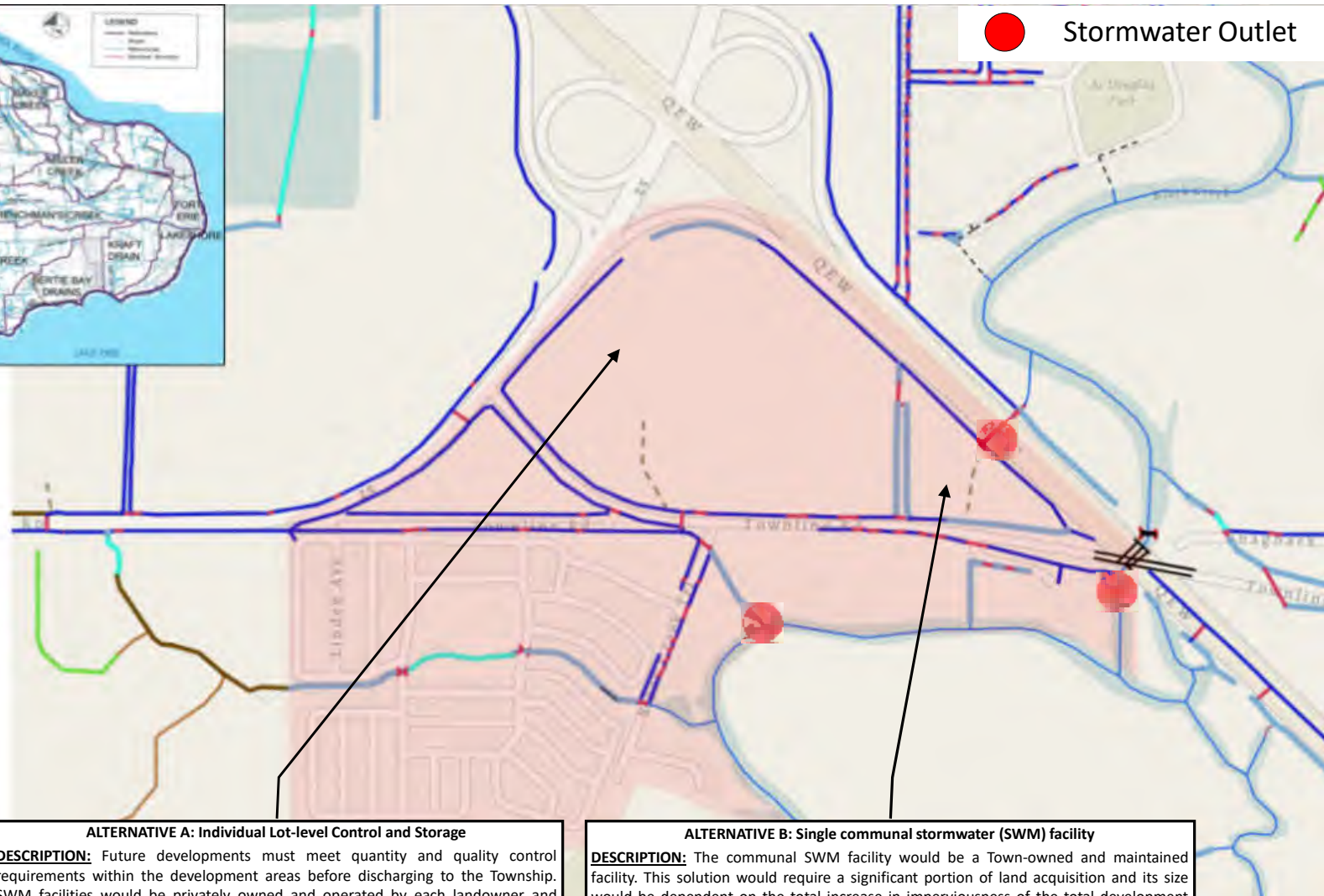


ALTERNATIVE SOLUTIONS – STORMWATER SERVICING



Legend

- Culvert
- Swale
- Rural Drainage
- Agricultural Drainage
- Ditch - Agricultural
- Ditch - Other
- Ditch - Roadside
- Pond - Other
- Waterbody - River



Stormwater Outlet

ALTERNATIVE A: Individual Lot-level Control and Storage

DESCRIPTION: Future developments must meet quantity and quality control requirements within the development areas before discharging to the Township. SWM facilities would be privately owned and operated by each landowner and outlet to the roadside ditch. Post-development peak runoff must not exceed the corresponding pre-development peak runoff for storm events with return periods of 5 and 100 years.

CAPITAL COSTS: \$ 0.2M (+/- 25%) for stormwater infrastructure to allow the Town to proceed with implementing lot-level. Costs for Lot Level Control Measures covered by Developers

ALTERNATIVE B: Single communal stormwater (SWM) facility

DESCRIPTION: The communal SWM facility would be a Town-owned and maintained facility. This solution would require a significant portion of land acquisition and its size would be dependent on the total increase in imperviousness of the total development proposed. The best location for a pond would be nearest the existing outfalls to Black Creek in the easternmost corner of the commercial zone between the Townline grade separation and the QEW.

CAPITAL COSTS: \$ 3.0M (+/- 25%) for stormwater infrastructure, land acquisition, construction of SM.

ALTERNATIVE SOLUTIONS – STEVENSVILLE LAGOONS TREATMENT CAPACITY

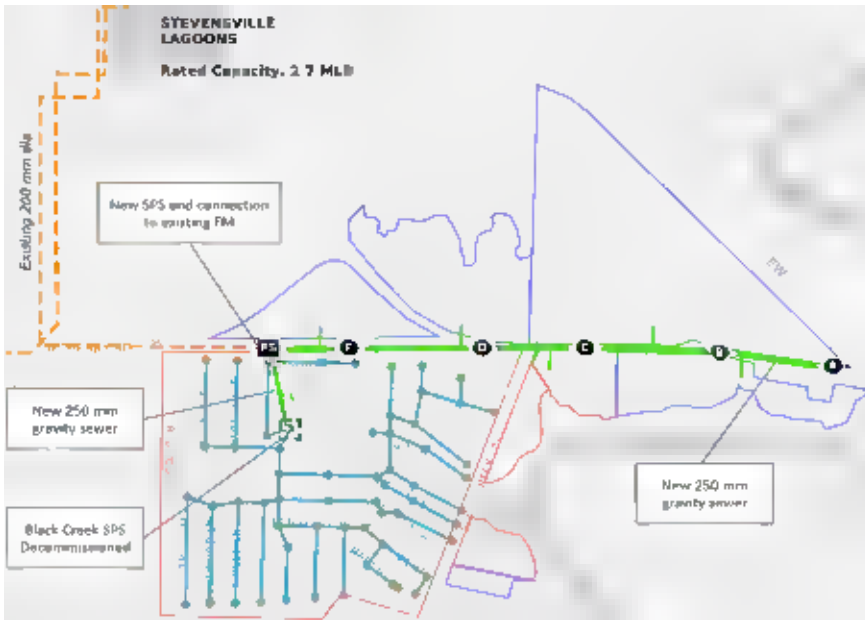
Treatment is the responsibility of Niagara Region. In the 2021 Water and Wastewater Master Servicing Plan Update, the Region was looking at two alternatives for expanding treatment capacity within the area as follows:

ALTERNATIVE 1: Expand the Stevensville Lagoons on the existing site.

ALTERNATIVE 2: Decommissioning the Stevensville Lagoons by replacing the Lagoons with a new sanitary pumping station (SPS) and forcemain to convey all current and future flows to either the Anger Avenue WWTP or new South Niagara Falls WWTP

The Town does not have direct control over this process; however, in order to service build-out for the Townline Road Study Area, this work will need to be implemented by the Region in the future.

Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.6 million (+/- 25%)

Advantages:

- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

Alternative B: New Sanitary Sewer Servicing Future Development



Capital Cost: \$4.6M (+/- 25%)

Advantages:

- Services development area north of Townline Road and commercial and residential properties south of Townline Road east of BCLH (excludes BCLH).
- Lower risk to Town due to maintenance of BCLH system as independent.
- No cost to BCLH.

Disadvantages:

- Economies of scale with connecting maximum number of properties is not achieved.
- BCLH is still responsible for operation and future renewal an aging asset (SPS and Forcemain).
- Increases long-term risk to BCLH.
- Two force mains are required to convey wastewater from study area to Stevensville Lagoons which limits space in the right-of-way for other utilities and increases cost of underground construction in the area.

POTENTIAL COST RECOVERY MECHANISMS

	Option 1 No Cost Recovery	Option 2 Development Charges Act (1997)	Option 3 One Time “Local Improvement” Charge	Option 3 One-Time Connection Fee	Option 4 Ongoing Local Fee
Cost Recovery Method	None. The Town implements the project as a capital project paid from the appropriate capital budget (water, wastewater, roads)	Recover the cost of the project from project specific development charges to be recovered at building permit stage from all identified lands in the study area.	Landowners will pay fees based on frontage or area basis to recover full cost of project.	Landowners will pay a one-time fee based their individual service size.	Town applies a fee on the landowner utility bill for a set period until the cost of the project is repaid.
Description	The Town would not collect any direct fees from the impacted landowners. Project costs would be spread across all current users in the system. The cost of this project would reduce available funding for other infrastructure renewal projects unless rates were increased on all users to reflect the impact of this project.	Development in the Town currently pay a development charge based on the category of development; however, it is a single fee across the Town and does not address the specific impacts of this project. The Town will need to update their Development Charges Background Study and By-Law to reflect the impact of this specific project including allowing for a development charge for this area alone. Recent exemptions to the Development Charges Act (1997) as a result of the <i>More Homes Built Faster Act, 2022 – Bill 23</i> may not apply as the zoning for the proposed development lands is not residential.	This alternative will use an approach similar to the former Local Improvement Act by using Section 326 of the Municipal Act which allows the Town to recover costs for special services or benefit using a by-law to apply costs to each potentially connected property based on either frontage on Town right-of-way or land area. The total cost and ultimate cost per landowner are finalized post-construction and based on actual costs incurred.	This alternative uses a service size-based approach to recover all project costs. The service size (water and/or sanitary) that is required for the development is used to allocate capacity based on potential use of the utility. In other words, the cost would be divided between all connected users with a lower cost for smaller residential services and a higher cost based on larger commercial services to divide cost based on projected use.	The Town defines a special local rate to be charged on the water/wastewater bill for each impacted property. The local rate will be applied until the capital and financing costs are recovered.
Considerations	This is not consistent with a user pay approach to cost recovery and would create a precedent which is contrary to the purpose of development charges.	This addresses development land but does not address existing landowners that may wish or be required to connect. Strict application of this approach may result in unfair distribution of costs between existing residents and developers that are receiving equivalent services.	This approach would avoid any risk of unpaid municipal debt; however, it may unduly burden properties that are not planning to develop in the foreseeable future. Furthermore, it does not take the potential water/wastewater use for the site-specific use at the property into consideration, only the frontage or area if this approach is preferred.	This approach would avoid any risk of unpaid municipal debt; however, it may unduly burden properties that are not planning to develop in the foreseeable future. This alternative is more equitable in terms of a user pay approach specific to the water used or wastewater produced.	This approach will result in the Town financing the project fully until the cost is recovered. Early connections to the system may pay more of the capital cost than connections that occur in the future. It is a more complex rate structure to manage, particularly if the variable approach is considered. However, if all of the connections are implemented in a similar timeframe, it would be the most equitable since users would pay capital costs based on their actual use of the system. With change of ownership, there would be no impacts, rate would follow the property, not the owner.
Financing Options	Town Capital Reserves or Debentures funded from wastewater base charges	- Town would need to finance project until building permits are requested. - Developers would front or privately finance development charges independent from the Town	- Town would front the cost of the project up to completion of the project. - Town may choose to provide financing options to landowners; however, it would be on a full cost recovery basis. - Subject to Town approach, Landowners would have option of lump sum payment, private financing or financing through the Town with a clause that requires full payment of outstanding balance upon land transfer.	- Town would front the cost of the project up to completion of the project. - Fee would be due upon completion of project regardless of when connection was made. Town could defer until connection, but then Town will have to finance the interim period. - Town may choose to provide financing options to landowners; however, it would be on a full cost recovery basis. - Subject to Town approach, Landowners would have option of lump sum payment, private financing or financing through the Town with a clause that requires full payment of outstanding balance upon land transfer.	- Town would front the cost of the project and although it would be full cost recovery, the Town would be holding the debt on the system for most of its lifespan. - Local fee would be applied to each water/wastewater bill based on cost recovery mechanism and period (10-20 years)

SEWER BY-LAW NO. 68-06 – REQUIREMENT TO CONNECT IF SERVICING IS AVAILABLE FRONTING ON A PROPERTY

The Sewer By-laws No. 68-06 sets rules, regulations, restrictions and standards that govern and regulate the management and operation of the Sewer Works and the Drainage Works owned by the Corporation and connections to their servicing systems. This laws shall be considered to form an integral part of the service contract between the Corporation and any Owner, Operator or Customer for provision of sewage collection services or drainage services by the Corporation. Of interest to this project, Section 3.2 of the Sewer By-laws No. 68-06 identifies the needs to connect for each resident.

Section 3.2 of the Sewer By-laws No. 68-06

OBLIGATION TO CONNECT

- Every building, within a serviced area as defined by the Official Plan as amended, fronting or flanking on a sanitary sewer of the Sewer Works, shall be connected to the Sewer; and sewer service rates and fees charged as prescribed by Council through by-law adopted from time to time, despite the building being serviced by a separate private sewer system, unless otherwise approved by the Chief Building Official.

TIMELINE TO CONNECT

- Where sanitary sewers have been installed within a road right-of-way or easement which abuts the property of an existing building, the affected property Owner shall connect at his/her expense to the completed sanitary sewer within twelve (12) months after the Corporation has sent notice to the property Owner by registered mail, to the property Owner's last known address, requiring the connection to be made.

FAILING TO CONNECT

- If any property Owner fails to connect to a newly constructed abutting sanitary sewer, the Corporation shall commence billing the property Owner for sanitary sewer services, one (1) month after the required connection was to be made, at the monthly rate established by Council for sanitary sewer services through by-law adoption from time to time.

EXISTING PRIVATE SEWAGE DISPOSAL FACILITIES

- A direct connection shall be made to the Sewer Works in compliance with this Schedule; and any septic tanks, cesspools and similar private sewage disposal facilities shall be cleaned and filled, or removed or destroyed, within a period ten (10) calendar days after the connection has been made to the Sewer Works, to the satisfaction of the Chief Building Official.

EXISTING HEALTH HAZARDS

- Where specific health hazards exist, any property Owner shall connect all sanitary facilities within an existing building to the Sewer Works, in accordance with the Building Code, Part 7, within sixty (60) calendar days of receipt of a registered notice to make such connection from the Corporation and/or from the Medical Officer of Health, to the satisfaction of the Chief Building Official.



NEXT STEPS



SELECTION OF
PREFERRED
ALTERNATIVE



SELECTION OF
PREFERRED
FINANCING METHOD



PUBLIC INFORMATION
CENTRE NO. 2



NOTICE OF
COMPLETION



IMPLEMENTATION

We Want to Hear from You! Provide your comments

Submit comments to a member of the project team.

More information including copies of project notices and PIC materials can be found at:

<https://www.forterie.ca/index.html>

Thank you for attending this Public Information Centre!



Jamie Witherspoon, P.Eng. – President
Consultant Project Manager
WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca



Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Town of Fort Erie
kwash@forterie.ca

November 2nd, 2023

TOWNLINER ROAD SERVICING MUNICIPAL CLASS EA

Public Information Centre (PIC) Sign-in Sheet

Time: 4:00-7:00 pm, Thursday November 2nd, 2023

Place: Stevensville Memorial Hall, 2508 Stevensville Road, Stevensville, Ontario, ON

PLEASE SIGN IN

NAME
Greg Hunter
Vince DiCosimo
Joseph Zargala
Dave Rogers
ALAN & PAM BAKER
MARILYN ROSE
BRENDA PROWSE
Bonnie Bockstall

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Except for personal information, comments submitted may be made public and included in the project documentation

TOWN OF FORT ERIE
Public Information Centre (PIC) Sign-in Sheet

PLEASE SIGN IN

NAME	ADDRESS	PHONE	EMAIL
Dave Backshall			

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TOWN OF FORT ERIE
Public Information Centre (PIC) Sign-in Sheet

PLEASE SIGN IN

NAME	ADDRESS	PHONE	EMAIL
Melissa Saccone			
ELSIE L. SMITH			

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TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

Dave Backshall

Comments:

As a resident of Black Creek Leisure Homes the project north of Townline Rd. is of extreme interest to me and all the residents living there.

As tax payers in the town of Fort Erie the project could impact us financially. We are about 95% seniors residing on fixed incomes and inflation is taking a big bite out of our incomes. Therefore I am for the change but concerned about the impact.

Do you require follow-up to your comments? Please Circle YES NO

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TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

Bonnie Backshall

Comments

I think that Parkbridge (our landlord) should hooked into the new system. As our pumphouse is very old, and may not be able to function properly if any more homes come into the community. ~~They~~ Parkbridge often has to refurbish our pumphouse. The costs are all ways passed onto the residents in a ABOVE GUIDELINE INCREASE. ~~As~~ Once hooked into the new system we would not have these increases for the pumphouse keep.

Do you require follow-up to your comments? Please Circle YES NO

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TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

BRENDA PROULX

Comments:

After reviewing initial proposal & plans and speaking with a Town Hall rep, as a member resident of Black Oak Leisure Homes, it only makes sense that we welcome the Town's new plan, rather than repairing or replacing the current system that Parkbridge currently has in place. Unfortunately Parkbridge does not maintain our current station properly since there are obvious gases at times.

Do you require follow-up to your comments? Please Circle YES NO

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TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

MARIANNE ROSIER

Comments:

INFORMATIVE AND WOULD LIKE TO SEE FORT ERIE
TAKE OVER THE WATER & SEWER FROM BLACK CREEK
LEISURE HOMES / PARKBRIDGE. OUR PARK IS 30 YRS
OLD & THE INFRASTRUCTURE IS SO OUTDATED.
WOULD RATHER PAY FORT ERIE KNOWING THIS WOULD
BE FAIR TO ALL RESIDENTS THAN A PRIVATE
CORPORATION SUCH AS PARKBRIDGE THAT IS ONLY
IN IT FOR MAXIMUM PROFIT. 100% IN FAVOR
OF THIS PROJECT GOING THROUGH.

Do you require follow-up to your comments? Please Circle YES NO

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Municipal Freedom of Information and Protection of Privacy Act. Except for personal information,
comments submitted may be made public and included in the project documentation.



TOWNLINER ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

VINCE DI COSIMO (GABRIELLA DI COSIMO)

Comments:

TO WHOM IT MAY CONCERN:

- I OWN THREE PROPERTIES LOCATED ON TOWNLINE RD 2803/2891/2899 TOWNLINE RD
- TWO OF THE LOCATIONS ABOVE HAVE NOT BEEN BUILT & ONE HAS AND WOULD VERY MUCH WANT TO CONNECT TO THE NEW TREATMENT SYSTEM PROPOSED.

PLEASE INCLUDE THE THREE LOCATIONS ABOVE WHEN COMPLETING THE WORK...

Do you require follow-up to your comments? Please Circle YES NO

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TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC)

Comment Sheet

Name:

Dave Rogers

Comments

I would prefer a gravity feed line from Black Creek Homes to a new station outside of the park. Black Creek station is no longer a viable option to maintain, also future flows inside the park will only increase in time.

Do you require follow-up to your comments? Please Circle YES NO

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Except for personal information, comments submitted may be made public and included in the project documentation.

APPENDIX G

PIC No. 2 - Documentation



Jamie Witherspoon, P.Eng. – President
Consultant Project Manager
WT Infrastructure Solutions Inc.
jamie.witherspoon@wtinfrastructure.ca

Townline Road Servicing Municipal Class EA

Public Information Centre No. 2
April 22nd, 2025



Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Town of Fort Erie
kwalsh@forterie.ca

WELCOME!

The Town of Fort Erie welcomes you to this Public Information Centre (PIC) so that we can share study objectives, findings to date, alternative solutions, and next steps.

What is the purpose of this Public Information Centre?



To present an overview of the Townline Road Servicing Municipal Class EA



To provide information regarding the project scope, identified needs, project opportunities and potential alternatives.



To collect your feedback on the proposed alternatives, assessment process and next steps of this project

Please review the material and provide us with any comments you may have. Staff are available to answer your questions and receive your comments.

We Want to Hear from You! Provide your comments

Submit comments to a member of the project team.

More information including copies of project notices and PIC materials can be found at:

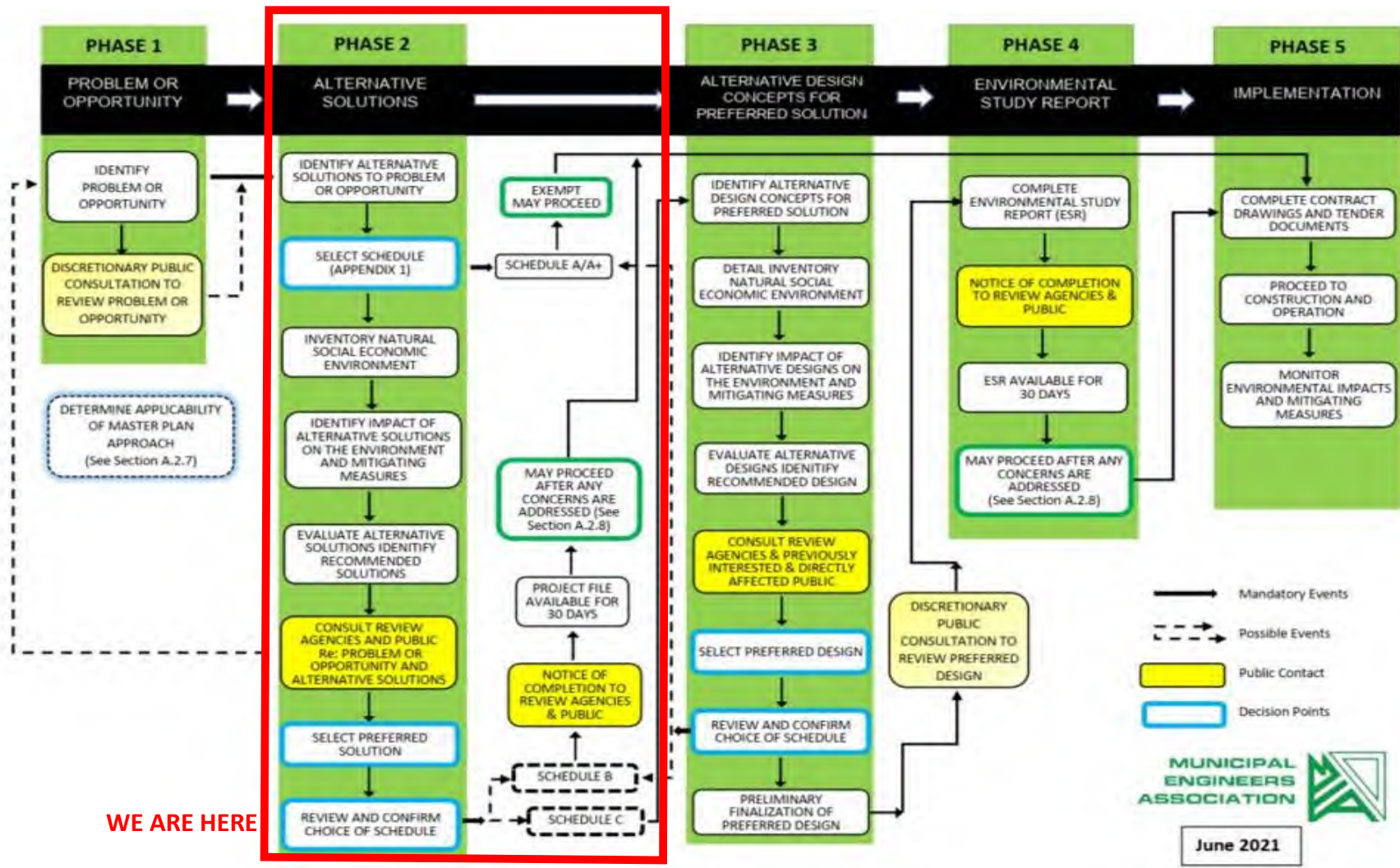
<https://www.forterie.ca/index.html>

Thank you for attending this Public Information Centre!



MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The Town has initiated this Municipal Class EA to evaluate and develop a coordinated and sustainable approach to service the study area. Due to the potential impacts, it has been defined as a Schedule B project and must complete Phase 1 and a Phase 2 of the environmental assessment process prior to being approved for implementation.



WE ARE HERE

PUBLIC INFORMATION CENTRE No. 1 - RECAP

- **Project Area:** The project area is part of the Douglastown - Black Creek Subdivision
- **Proposed Development:** Development will occur on the north side of Townline Road, in the triangular commercially designated and zoned lands. The development may include:
 - A convenience store, gasoline bar, and a restaurant with a drive-thru. This proposal would change the existing Highway Commercial (C3-551) zoning to a new site-specific Highway Commercial (C3) Zone that permits a gasoline bar on the site.
 - A Public Storage facility along the QEW.
 - A long-term care facility/retirement home south of the Provincially Significant Wetland.
 - A medical building along Townline Road.
- **Servicing System**



- **Water System:** The commercially zoned parcels of land north of Townline Road are adjacent to the 200mm diameter watermain owned by the Town.



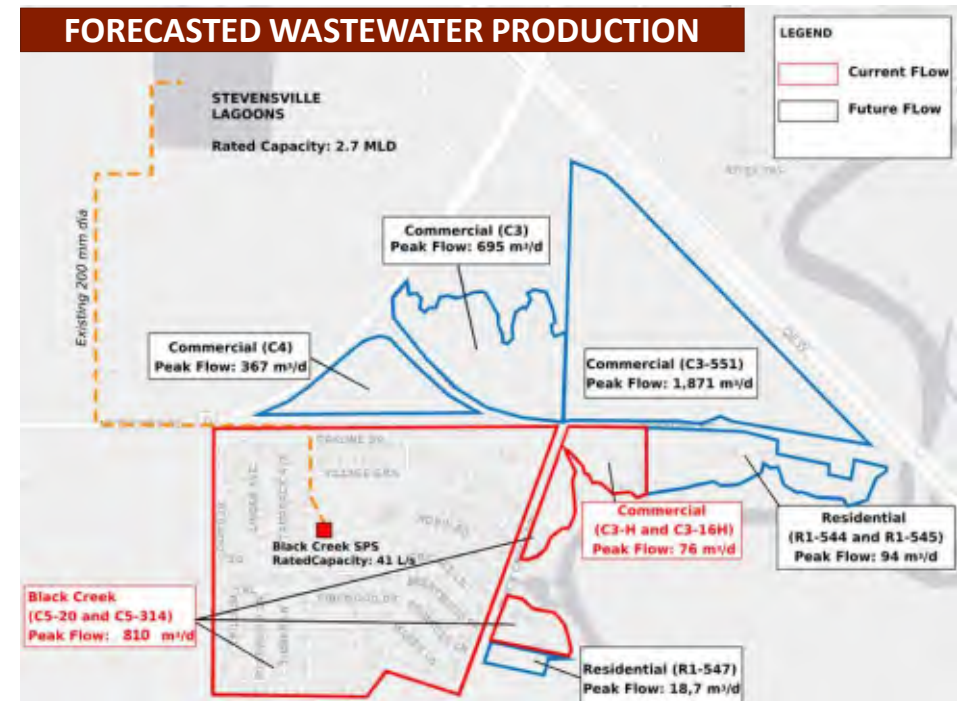
- **Stormwater System:** There is no stormwater system currently in place. To manage stormwater effectively and prevent issues, new development areas are required to ensure that post-development runoff does not exceed pre-development runoff levels.



- **Wastewater System:** The only existing sanitary service within the project area is a private collection system on the south side of Townline Road, which consists of gravity sewers, pumping station, and a pressure forcemain that pumps wastewater to the Stevensville sewage lagoons. This system is currently in place to serve the Black Creek Leisure Homes development.

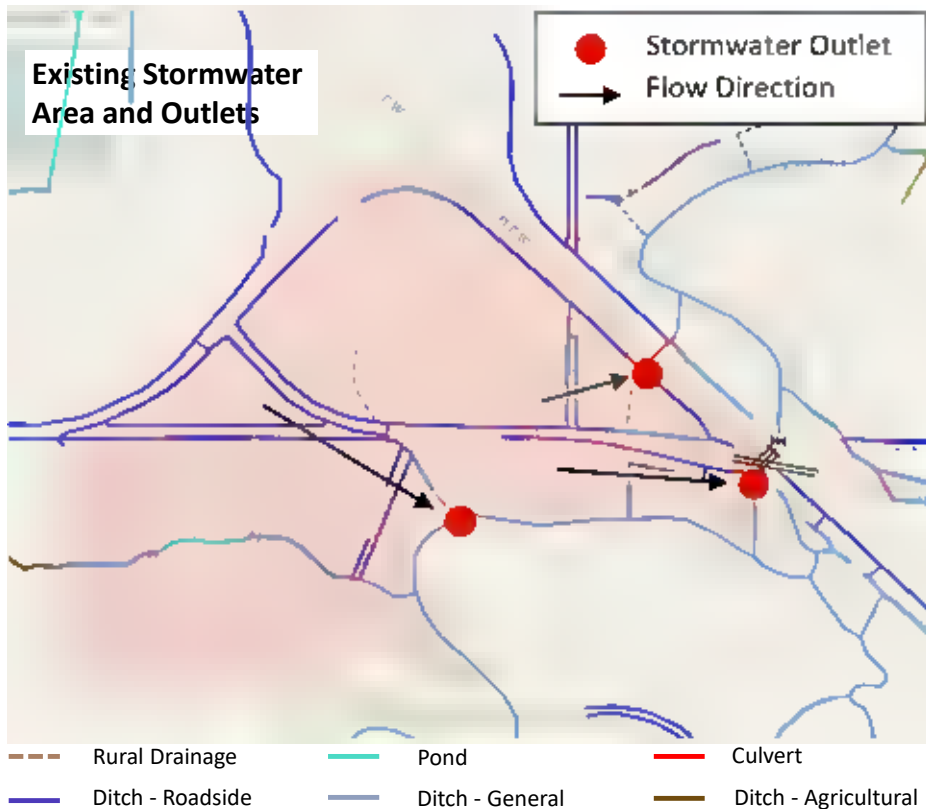
• Problem Identification:

- **Servicing:** The project area is currently serviced by a municipal water supply but does not have sanitary and stormwater servicing in place. Therefore, servicing needs to be provided.
- **Wastewater Treatment:** The Stevensville lagoons are currently operating at 70% of their rated capacity. The Lagoons would not have enough capacity to treat wastewater produced by all future development within the catchment area. Niagara Region will need to expand or divert wastewater from the Stevensville Lagoons for the full build-out of development in the area.



This project is intended to support the Town in the development and assessment of technical solutions to provide sanitary and stormwater services for current and future development within the project area.

ALTERNATIVE SOLUTIONS – STORMWATER SERVICING



ALTERNATIVE A: Individual Lot-level Control and Storage

DESCRIPTION: Future developments must meet quantity and quality control requirements within the development areas before discharging to the Township. Stormwater Management facilities would be privately owned and operated by each landowner and outlet to the roadside ditch. Post-development peak runoff must not exceed the corresponding pre-development peak runoff for storm events with return periods of 5 and 100 years. This is common practice for commercial development.

CAPITAL COSTS: \$ 0.2M (+/- 25%) for stormwater infrastructure to allow the Town to proceed with implementing lot-level. Costs for Lot Level Control Measures covered by Developers

PREFERRED ALTERNATIVE

ALTERNATIVE B: Single Communal Stormwater Management (SWM) Facility

DESCRIPTION: The communal SWM facility would be a Town-owned and maintained facility. This solution would require a significant portion of land acquisition, and its size would be dependent on the total increase in imperviousness of the total development proposed. The best location for a pond would be nearest the existing outfalls to Black Creek in the easternmost corner of the commercial zone between the Townline grade separation and the QEW.

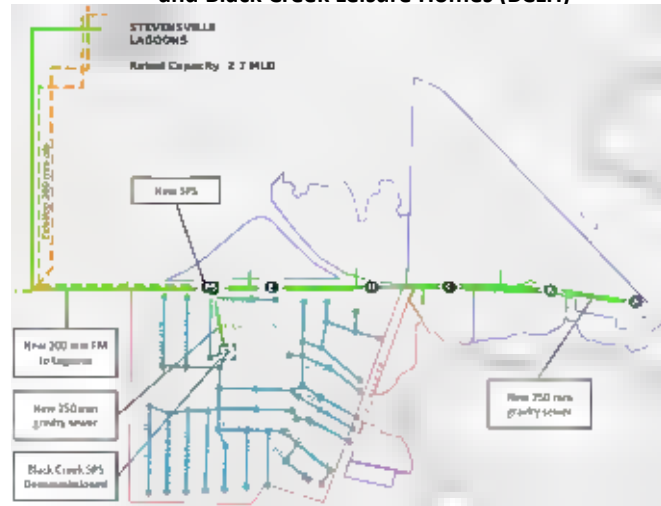
CAPITAL COSTS: \$ 3.0M (+/- 25%) for stormwater infrastructure, land acquisition, construction of SM.

ADVANTAGES OF LOT-LEVEL CONTROL AND STORAGE

- **Scale:** Lot-level practices are best suited for this size of development.
- **Capital Costs and Implementation:** Lot-level controls have low capital costs and are easier to implement on new and existing developments. Stormwater ponds have higher capital costs and require more extensive planning and construction.
- **Maintenance:** Lot-level practices require regular maintenance on a smaller scale, while stormwater ponds need specialized equipment and expertise for maintenance.
- **Environmental Impact:** Lot-level practices often have a more direct positive impact on water quality and groundwater recharge, whereas stormwater ponds provide broader flood control and habitat benefits.

ALTERNATIVE SOLUTIONS – SANITARY SERVICING

Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.5 million (+/- 25%)

Advantages:

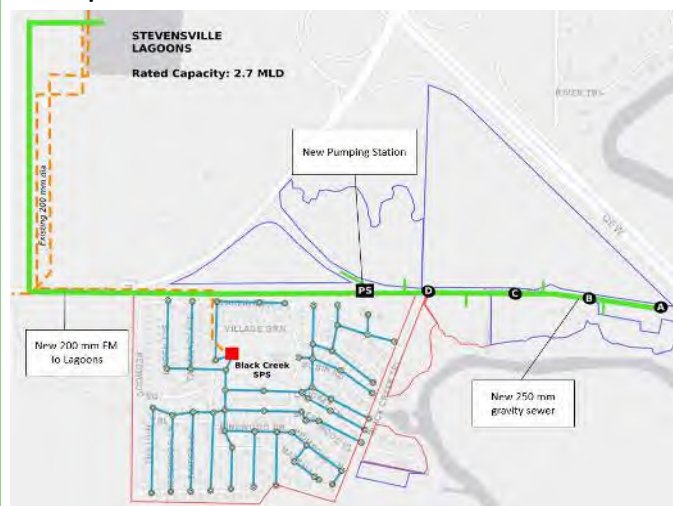
- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

PREFERRED ALTERNATIVE

Alternative B: New Sanitary Sewer Servicing Future Development



Capital Cost: \$4.6M (+/- 25%)

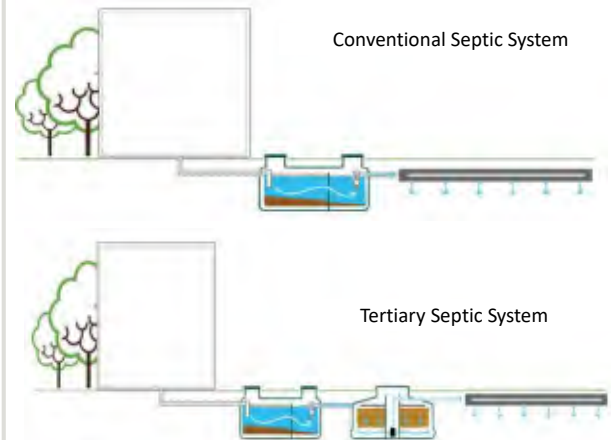
Advantages:

- Services development area north of Townline Road and commercial and residential properties south of Townline Road east of BCLH (excludes BCLH).
- Lower risk to the Town due to maintenance of BCLH system as independent.
- No cost to BCLH.

Disadvantages:

- Economies of scale with connecting the maximum number of properties are not achieved.
- BCLH is still responsible for the operation and future renewal of an aging asset (SPS and Forcemain).
- Increases long-term risk to BCLH.
- Two forcemains are required to convey wastewater from the study area to Stevensville Lagoons which limits space in the right-of-way for other utilities and increases the cost of underground construction in the area.

Alternative C: Decentralized Sanitary Sewer – On-Site Septic Systems



Capital Cost: \$10M-\$20M (+/- 25%)

Advantages:

- Decentralized systems can be tailored to treat different types of wastewater, ensuring effective management in diverse settings.
- Does not consume capacity allocation from Stevensville Lagoon system.

Disadvantages:

- Conventional septic systems would require a larger area than the land available to construct a septic system in each area north of Townline Road.
- The only feasible configuration that would allow for both development and onsite treatment would be a direct discharge treatment plant into Black Creek, which would be challenging from an environmental perspective.
- Decentralized system will require the construction of several independent treatment systems resulting in higher environmental impacts due to the construction.
- Higher operational costs for treatment system operation would reduce development viability.

REGION OF NIAGARA WASTEWATER CAPACITY IMPACTS

2021 Water and Wastewater Master Servicing Plan Update, the Region was looking at two alternatives for expanding treatment capacity within the area as follows:

ALTERNATIVE 1: Expand the Stevensville Lagoons on the existing site OR **ALTERNATIVE 2:** Decommissioning the Stevensville Lagoons by replacing the Lagoons with a new sanitary pumping station (SPS) and forcemain to convey all current and future flows to either the Anger Avenue WWTP or new South Niagara Falls WWTP

THIS IS AN INDEPENDENT PROCESS TO THE SERVICING CLASS EA; HOWEVER, FULL DEVELOPMENT OF TOWNLINE ROAD AREA COULD NOT BE COMPLETED UNTIL CAPACITY RESTRICTIONS ARE RESOLVED.

COST RECOVERY MECHANISMS

The basis of the cost recovery is that all of the development lands contribute to the implementation of the servicing via development charges payable upon the development of the land. The remainder of the costs incurred that benefit other users within the subject area can be charged to those users under O.Reg. 586/06 under the Municipal Act.

PROJECT COSTS

SANITARY AND STORM SERVICING

- Total Capital Cost: \$5,403,540
 - Development Charge Recoverable - \$3,449,475
 - Development Charge Reserve Contribution - \$603,180
 - **Cost Recovery from Non-Development Lands - \$1,350,885**

ALTERNATIVE COST RECOVERY METHOD

FULL AREA SERVICING

This method includes the full servicing of the lands in the study area, including BCLH. The most equitable approach is to recover the cost from BCLH in a commensurate manner with their anticipated wastewater capacity allocation (88%), with the remaining cost being retrieved on a frontage basis from the remaining non-development lands.

HOW IT WORKS

- **Black Creek Leisure Homes cover 88% of the total project costs**
 - 88% of \$1,350,885 = 1,188,779 (\$3,179 per equivalent unit)
- **Costs to be covered by the remaining properties – \$162,110**
 - Total Frontage – 403 linear meters (LM)
 - Frontage Cost per meter - $\$162,110 / 403 \text{ LM} = \$402.25 \text{ per LM}$
 - This equates to approximately \$14,750 per existing household, on average.

The total cost per household will be paid on an annual basis over 20 years

SEWER BY-LAW NO. 68-06 – REQUIREMENT TO CONNECT IF SERVICING IS AVAILABLE FRONTING ON A PROPERTY

The Sewer By-laws No. 68-06 sets rules, regulations, restrictions and standards that govern and regulate the management and operation of the Sewer Works and the Drainage Works owned by the Corporation and connections to their servicing systems. This laws shall be considered to form an integral part of the service contract between the Corporation and any Owner, Operator or Customer for provision of sewage collection services or drainage services by the Corporation. Of interest to this project, Section 3.2 of the Sewer By-laws No. 68-06 identifies the needs to connect for each resident.

Section 3.2 of the Sewer By-laws No. 68-06

OBLIGATION TO CONNECT

- Every building, within a serviced area as defined by the Official Plan as amended, fronting or flanking on a sanitary sewer of the Sewer Works, shall be connected to the Sewer; and sewer service rates and fees charged as prescribed by Council through by-law adopted from time to time, despite the building being serviced by a separate private sewer system, unless otherwise approved by the Chief Building Official.

TIMELINE TO CONNECT

- Where sanitary sewers have been installed within a road right-of-way or easement which abuts the property of an existing building, the affected property Owner shall connect at his/her expense to the completed sanitary sewer within twelve (12) months after the Corporation has sent notice to the property Owner by registered mail, to the property Owner's last known address, requiring the connection to be made.

FAILING TO CONNECT

- If any property Owner fails to connect to a newly constructed abutting sanitary sewer, the Corporation shall commence billing the property Owner for sanitary sewer services, one (1) month after the required connection was to be made, at the monthly rate established by Council for sanitary sewer services through by-law adoption from time to time.

EXISTING PRIVATE SEWAGE DISPOSAL FACILITIES

- A direct connection shall be made to the Sewer Works in compliance with this Schedule; and any septic tanks, cesspools and similar private sewage disposal facilities shall be cleaned and filled, or removed or destroyed, within a period ten (10) calendar days after the connection has been made to the Sewer Works, to the satisfaction of the Chief Building Official.

EXISTING HEALTH HAZARDS

- Where specific health hazards exist, any property Owner shall connect all sanitary facilities within an existing building to the Sewer Works, in accordance with the Building Code, Part 7, within sixty (60) calendar days of receipt of a registered notice to make such connection from the Corporation and/or from the Medical Officer of Health, to the satisfaction of the Chief Building Official.



NEXT STEPS



SELECTION OF
PREFERRED
ALTERNATIVE



SELECTION OF
PREFERRED
FINANCING METHOD



PUBLIC INFORMATION
CENTRE NO. 2



NOTICE OF
COMPLETION



IMPLEMENTATION

Done ✓

Today

Next

We Want to Hear from You! Provide your comments

Submit comments to a member of the project team.

More information including copies of project notices and PIC materials can be found at:

<https://letstalk.forterie.ca/townline-road-servicing-study>

Thank you for attending this Public Information Centre!



Jamie Witherspoon, P.Eng. – President
Consultant Project Manager
WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca



Jordan Frost, P. Eng., PTOE
Acting Director, Infrastructure
Services

The Town of Fort Erie

jfrost@forterie.ca

April 22nd, 2025

TOWNLINE ROAD SERVICING MUNICIPAL CLASS EA

Public Information Centre (PIC) No. 2 Sign-in Sheet

Time: 5:00-8:00 pm, Tuesday, April 22nd, 2025

Place: Stevensville Memorial Hall, 2508 Stevensville Road, Stevensville, Ontario, ON

PLEASE SIGN IN

NAME	ADDRESS	PHONE	EMAIL
Dave & Dianne Roper			
Paul Burgess			
Melissa Seccombe			
Bonnie Backshall			
Dave Backshall			
SARA ROZON-COSACH			
MARIX REAMAN			
Wade Berman			

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Except for personal information, comments submitted may be made public and included in the project documentation.

TOWN OF FORT ERIE
Public Information Centre (PIC) Sign-in Sheet

PLEASE SIGN IN

NAME	ADDRESS	PHONE	EMAIL
Peter Horn			

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Except for personal information, comments submitted may be made public and included in the project documentation



TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC) No. 2

Comment Sheet

Name:

Dave & Donanne Rogers

Comments:

How much is this going to cost us as
homeowners? (living in the community of 307 houses.)
Proper training by Parkbridge employees
would be necessary. (for their own safety
and well-being).

Do you require follow-up to your comments? Please Circle

YES

NO

Comments and information regarding this project are being collected in accordance with the
Municipal Freedom of Information and Protection of Privacy Act. Except for personal information,
comments submitted may be made public and included in the project documentation.



TOWNLINE ROAD SERVICING
MUNICIPAL CLASS EA

Public Information Centre (PIC) No. 2

Comment Sheet

Name:

Bonnie Backshall

Comments:

I feel that this would be an advantage to our community, as we are paying now for refurbishment of Black Creek's Pump House equipment. We have paid twice in the last 15 yrs. The cost can be high for seniors to pay each time the pump house needs work. It will continue as they do not have a reputation to let maintenance go until the parts breakdown and need to be replaced. They put these costs onto the residents as Above Guideline Increases.

Do you require follow-up to your comments? Please Circle YES NO

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Except for personal information, comments submitted may be made public and included in the project documentation.

APPENDIX H

Received Correspondence

Tiziana Venditto

From: Tiziana Venditto
Sent: Thursday, November 23, 2023 12:45 PM
To: Tiziana Venditto
Subject: FW: Concerns and Questions Regarding Proposed Sewer System Funding

From: Melissa Saccone [REDACTED]
Sent: Monday, November 13, 2023 4:06 PM
To: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>; kwash@forterie.ca
Subject: Concerns and Questions Regarding Proposed Sewer System Funding

To whom it may concern,

I trust this letter finds you well. I am writing to express my deep concern and confusion regarding the recent developments shared in a public information meeting on November 2, 2023 at the Stevensville Memorial Hall concerning the potential installation of a sewer system in our neighborhood.

It is disheartening to learn that, as a homeowner on Townline Rd., I may be burdened with a significant financial responsibility for a sewer system that I neither requested nor desired. The proposal by the Town of Fort Erie to charge each property owner a percentage of the entire sewer system bill, in my case, totaling 2% of a minimum of \$5.4 million, is a considerable financial strain. This is in addition to the expenses associated with the hook-up to my property, which further compounds the financial impact.

I was told I would benefit from this project. From where I stand my only view of a property already worth less the minute you proposed this. No person would buy my property at the present time since they will have to come up with an extra \$100,000. My property is worth a fair bit since it has easy highway access, making every town and city only minutes away, and the Niagara River is accessible via Black Creek. Once I have the sewers, you may increase the property value by \$50,000. My math skills tell me that this would be a loss for me.

I resonate with the sentiment shared that this initiative is driven by the desire to attract developers to the area. While economic growth is undoubtedly crucial, it raises the question of whether the financial responsibility should disproportionately fall on the shoulders of the homeowners. As a retired individual, the proposed cost is particularly challenging, and it is essential to consider the financial well-being of all residents in the decision-making process.

Moreover, the response received during the meeting from a member of the Town Council, suggesting that the increased property value should be a source of gratitude, left me disheartened. While property value may rise, the associated increase in property taxes perpetuates a cyclical financial burden, creating a complex situation for homeowners like myself who have no intention of selling.

I appreciate the concerns raised by Ann-Marie Noyes about the disconnect between the Town's services and the associated costs, as highlighted in her own experience with garbage pickup charges. The juxtaposition of a \$100 annual fee for garbage collection against a substantial financial obligation for a sewer system underscores the need for a fair and transparent approach to funding municipal services.

It is disconcerting to witness a deviation from the promises made during Council campaigns. In her 2022 Candidate Profile, Ann-Marie Noyes pledged to prioritize residents' needs and concerns, particularly regarding responsible development that aligns with the existing neighborhood infrastructure. The current proposal contradicts this commitment, raising some very concerning questions about the Council's alignment and loyalty with the community's best interests.

Below are the addresses of the affected individuals, all of whom have dedicated the majority of their lives to this community:

2875 Townline Road: Retired

2907 Townline Road : Anticipating retirement in 2-3 years at age 70.

2915 Townline Road : Recently purchased as a retirement home.

2929 Townline Road : Myself - Retired, living on the property for 60 years.

2935 Townline Road: Planning to retire in a year, currently managing debt, lived on the property for 25+ years.

2955 Townline Road : Retired, residing on the property for 60+ years.

These individuals, including myself, are on limited incomes during our retirement years. The proposed financial burden of contributing to the sewer system, even with payment plans, would undoubtedly place an unbearable strain on our finances. For many of us, the prospect of coming up with significant sums of money poses a real threat to our financial stability and quality of life in our retirement.

The inherent financial challenges faced by retired homeowners in our community are further compounded by the obligation to contribute to a project that was neither requested nor desired. We find ourselves in a difficult position, contemplating the possibility of selling our homes due to financial constraints imposed by the proposed sewer system funding.

We understand the importance of progress and development in our community, but we urge the Town of Fort Erie to reconsider the distribution of the financial burden. Given our limited incomes and the decades of investment in our homes, the proposed funding model places an unjust weight on our shoulders.

As engaged and responsible citizens, we seek a collaborative and considerate approach from the Town. It is our hope that alternative funding solutions can be explored to protect the financial well-being of the retirees in our community while supporting the necessary infrastructure development.

In closing, I seek clarification on the Town of Fort Erie's plans for our neighborhood moving forward. Additionally, I am eager to understand if there are alternative, more equitable funding solutions that can be explored to ensure the well-being of all residents. Open communication and collaboration between the Town and its citizens are crucial for fostering a thriving and inclusive community.

Thank you for your attention to these concerns, and we all look forward to a constructive dialogue on this matter.

Sincerely,

Melissa Saccone



Tiziana Venditto

From: Tiziana Venditto
Sent: Thursday, November 23, 2023 12:48 PM
To: Tiziana Venditto
Subject: FW: Concerns and Questions Regarding Proposed Sewer System Funding

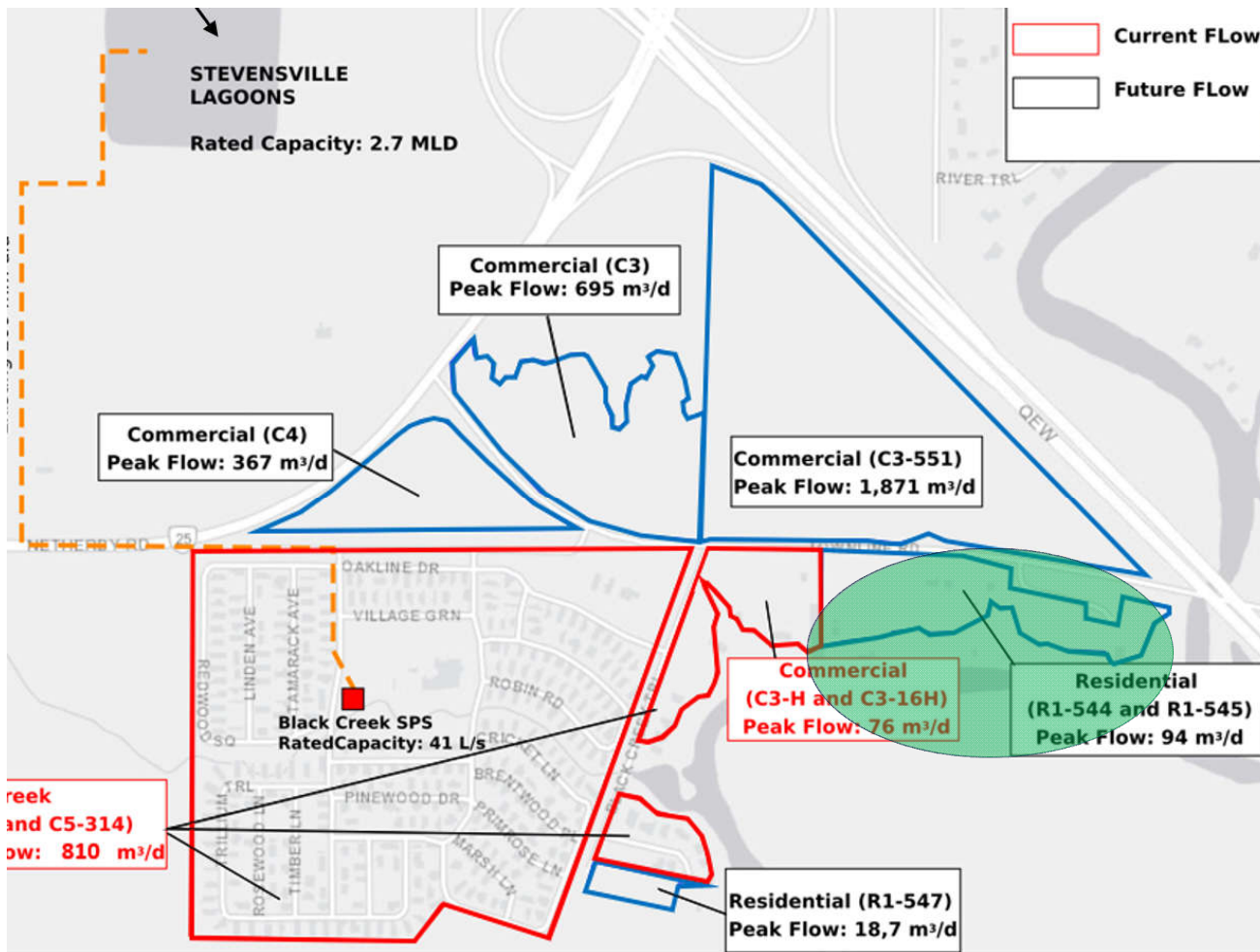
From: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Sent: Monday, November 13, 2023 5:41:27 PM
To: Melissa Saccone [REDACTED] <kwash@forterie.ca> <kwash@forterie.ca>
Cc: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>
Subject: RE: Concerns and Questions Regarding Proposed Sewer System Funding

Ms. Saccone,

Thank you for your feedback. Please accept this email as confirmation that your email has been received and will be reviewed and responded to during the EA process.

We would like to clarify that the cost recovery methodology alternatives were presented in the PIC No. 1 materials were just potential alternatives and there has not been a decision regarding the preferred approach to cost recovery at this time. Furthermore, as I believe your property and the properties you reference represent the area under the green oval on the image below and all those properties represent approximately 2.4% of the peak potential sanitary flow. Therefore, if that were the cost recovery mechanism selected, then the 2.4% of the cost would be divided among all of the properties and potential development lots you indicate below and not your property alone.

There will be a second Public Information Centre and that that time there will be more information regarding the potential cost recovery options and how the Town is planning to proceed. We welcome your feedback.



Let us know if you have any additional questions.
 Regards,
 Jamie



Jamie Witherspoon, P.Eng., LEED AP, ENV SP
 President & CEO
 Tel: 1.833.WTINFRA (984.6372) ext. 101
 Cell: 519.400.6701
 WT Infrastructure Solutions Inc.
jamie.witherspoon@wtinfrastructure.ca

Jamie Witherspoon

From: Hilton [REDACTED]
Sent: Friday, November 3, 2023 11:46 AM
To: Jamie Witherspoon
Subject: Voice Mail (29 seconds)
Attachments: audio.mp3

Hi, Jamie. My name is Jim Graham. It's [REDACTED] It's Friday at 11:45 AM. I understand that you were participating in a public information session yesterday regarding Town Line and Stevensville. Wonder if you may be able to give me a call back when you have a minute, [REDACTED] I represent an owner of Property [REDACTED] Rather, and I'd like to have a conversation with you briefly, [REDACTED] Thank you. Bye for now.

You received a voice mail from [Hilton](#).

Thank you for using Transcription! If you don't see a transcript above, it's because the audio quality was not clear enough to transcribe.

[Set Up Voice Mail](#)

Mr. Graham was interested in the proposed developments and what could be developed on the property. WT indicated that our scope was to address the servicing of the properties within current zoning and that what could or would be developed there was not in our scope. We were aware of the McDonalds, Gas Station, Convenience Store application, but were not aware of other applications that were in process beyond the potential developments indicated in our PIC Boards. We indicated that what would be allowed to be developed there was best addressed with the Town Planning Department and that they could call the Town to confirm the best approach forward.

Tiziana Venditto

From: Jamie Witherspoon
Sent: Thursday, August 10, 2023 5:13 PM
To: Tiziana Venditto
Subject: FW: Notice of Commencement - Townline Road Servicing Class Environmental Assessment
Attachments: 2023_08_10_Townline Road Servicing MCEA_MNRF_Response.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

Please document and save for the EA.
JW



Jamie Witherspoon, P.Eng., LEED AP, ENV SP
President & CEO
Tel: 1.833.WTINFRA (984.6372) ext. 101
Cell: 519.400.6701
WT Infrastructure Solutions Inc.
jamie.witherspoon@wtinfrastructure.ca

From: Marks, Jody (MNRF) <Jody.Marks@ontario.ca>
Sent: Thursday, August 10, 2023 2:22 PM
To: kwalsh@forterie.ca
Cc: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Subject: RE: Notice of Commencement - Townline Road Servicing Class Environmental Assessment

Hello Kelly Walsh,

Thank you for circulating the Notice of Commencement for the Municipal Class Environmental Assessment Study for Townline Road Servicing to the Ministry of Natural Resources and Forestry. Please find attached the Ministry's response.

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

Jody Marks (*her/she*)
Regional Planner
Land Use Planning and Strategic Issues Section | Southern Region |
Ministry of Natural Resources and Forestry (MNRF)
| (249) 733-1376 | jody.marks@ontario.ca



As part of providing accessible customer service, please let me know if you have any accommodation needs or require communication supports or alternate formats.

From: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>

Sent: Friday, July 21, 2023 1:38 PM

Subject: Notice of Commencement - Townline Road Servicing Class Environmental Assessment

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

The Town of Fort Erie (the Town) is completing a Municipal Class Environmental Assessment (Class EA) study to evaluate and select preferred solutions to provide water, sanitary and stormwater services to the area north and south of Townline Road between Netherby Road and the QEW in order to facilitate the future development of those lands.

You are being contacted because you or your organization have been identified as either being a stakeholder or potentially having interest or input into this project.

This study is being undertaken as a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class Environmental Assessment process includes public and agency consultation, the evaluation of alternatives, assessment of the potential effects of the proposed project and the identification of mitigation measures. The public will have the opportunity to participate through attendance at a Public Information Centre that will be scheduled as the Study proceeds. Upon completion of the Study, an Environmental Study Report (ESR) will be prepared and made available for public review and comment.

Input from the public, agencies and other stakeholders will be sought throughout the study to identify options to address the study findings and optimize the evaluation process. We are interested in receiving any comments that you may have about the Study or any information your Agency may have which is relevant to this project. Should the proposed Project have no effect on your Agency's program mandate and/or policies, please let us know using the contact email provided below.

All comments and information received regarding this project are being collected under the authority of the "Municipal Act" to assist the Town of Fort Erie in making a decision. Under the "Municipal Act", personal information such as name, address, telephone number, and property location that may be included in a submission becomes part of the public record.

If you have any questions, or would like additional information regarding this project, please contact the Consultant WT Infrastructure Solution Inc.'s contact at jamie.witherspoon@wtinfrastructure.ca or the Town's Contact Kelly Walsh, Director of Infrastructure Services at kwalsh@forterie.ca.

Sincerely,



Tiziana Venditto

Water and Wastewater Process Analyst

WT Infrastructure Solutions Inc.

tiziana.venditto@wtinfrastructure.ca

**Ministry of Natural Resources and
Forestry**

Land Use Planning and Strategic Issues
Section
Southern Region

Regional Operations Division
300 Water Street
Peterborough, ON K9J 3C7

Ministère des Richesses naturelles et des Forêts

Section de l'aménagement du territoire et des
questions stratégiques
Région du Sud

Division des opérations régionales
300, rue Water
Peterborough (ON) K9J 3C7



August 10, 2023

Kelly M. Walsh
Director, Infrastructure Services
Town of Fort Erie
kwalsh@forterie.ca

**SUBJECT: Notice of Commencement - Townline Road Servicing Class Environmental
Assessment**

The Ministry of Natural Resources and Forestry (MNRF) received the Notice of Commencement on July 21, 2023. Thank you for circulating this to our office. Please note that we have not completed a screening of natural heritage or other resource values for the project at this time. This response, however, does provide information to guide you in identifying and assessing natural features and resources as required by applicable policies and legislation, as well as engaging with the Ministry for advice as needed.

Please also note that it is the proponent's responsibility to be aware of, and comply with, all relevant federal or provincial legislation, municipal by-laws or other agency approvals.

Natural Heritage

MNRF's natural heritage and natural resources GIS data layers can be obtained through the Ministry's [Land Information Ontario \(LIO\)](#) website. You may also view natural heritage information online (e.g., Provincially Significant Wetlands, ANSI's, woodlands, etc.) using the [Make a Map: Natural Heritage Areas](#) tool.

We recommend that you use the above-noted sources of information during the review of your project proposal.

Natural Hazards

A series of natural hazard technical guides developed by MNRF are available to support municipalities and conservation authorities implement the natural hazard policies in the Provincial Policy Statement (PPS). For example, standards to address flood risks and the potential impacts and costs from riverine flooding are addressed in the *Technical Guide River and Stream Systems: Flooding Hazard Limit (2002)*. We recommend that you consider these technical guides as you assess specific improvement projects that can be undertaken to reduce the risk of flooding.

Petroleum Wells & Oil, Gas and Salt Resources Act

There may be petroleum wells within the proposed project area. Please consult the Ontario Oil, Gas and Salt Resources Library website (www.ogsrlibrary.com) for the best-known data on

any wells recorded by MNRF. Please reference the 'Definitions and Terminology Guide' listed in the publications on the library website to better understand the well information available. Any oil and gas wells in your project area are regulated by the *Oil, Gas and Salt Resource Act*, and the supporting regulations and operating standards. If any unanticipated wells are encountered during development of the project, or if the proponent has questions regarding petroleum operations, the proponent should contact the Petroleum Operations Section at POSRecords@ontario.ca or 519-873-4634.

Fish and Wildlife Conservation Act

Please note, that should the project require:

- The relocation of fish outside of the work area, a Licence to Collect Fish for Scientific Purposes under the *Fish and Wildlife Conservation Act* will be required.
- The relocation of wildlife outside of the work area (including amphibians, reptiles, and small mammals), a Wildlife Collector's Authorization under the *Fish and Wildlife Conservation Act* will be required.

Public Lands Act & Lakes and Rivers Improvement Act

Some Project may be subject to the provisions of the *Public Lands Act* or *Lakes and River Improvement Act*. Please review the information on MNRF's web pages provided below regarding when an approval is, or is not, required. Please note that many of the authorizations under the *Lakes and Rivers Improvement Act* are administered by the local Conservation Authority.

- For more information about the *Public Lands Act*: <https://www.ontario.ca/page/crown-land-work-permits>
- For more information about the *Lakes and Rivers Improvement Act*: <https://www.ontario.ca/page/lakes-and-rivers-improvement-act-administrative-guide>

After reviewing the information provided, if you have not identified any of MNRF's interests stated above, there is no need to circulate any subsequent notices to our office. If you have identified any of MNRF's interests and/or may require permit(s) or further technical advice, please direct your specific questions to the undersigned.

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

Best Regards,



Jody Marks
Regional Planner
Land Use Planning and Strategic Issues Section – Southern Region
Ministry of Natural Resources and Forestry

Tiziana Venditto

From: Danielle Culver <DCulver@forterie.ca>
Sent: Wednesday, December 13, 2023 3:01 PM
To: Jamie Witherspoon
Cc: Andrew Tulk; Kelly Walsh; Tiziana Venditto
Subject: RE: Townline Road Servicing Study - Status Update

Hi Jamie,

Thank you for getting back to me and for the information.

I appreciate you reaching out to Enereau and including them as a stakeholder, they have been inquiring with our office to be included - so glad it works out.

I hope you have a great rest of your week!

Thanks,
Danielle

Danielle Culver

Executive Assistant / Jr. Economic Development Officer

The Corporation of the Town of Fort Erie | Economic Development & Tourism Services

1 Municipal Centre Drive, Fort Erie, ON, L2A 2S6

T: 905-871-1600 x 2253 | E: dculver@forterie.ca

www.forterie.ca

From: "Jamie Witherspoon" <jamie.witherspoon@wtinfrastructure.ca>
To: "Danielle Culver" <DCulver@forterie.ca>, "Andrew Tulk" <andrew.tulk@wtinfrastructure.ca>
Cc: "Kelly Walsh" <KWalsh@forterie.ca>, "Tiziana Venditto" <Tiziana.venditto@wtinfrastructure.ca>
Date: 13-12-2023 01:25 PM
Subject: RE: Townline Road Servicing Study - Status Update

Danielle,

We went back through our correspondence, and they did request to be a stakeholder. Unfortunately, the email got missed due to timing and team member vacations. We will be sending them the notice of commencement and PIC No. 1 information today for their review. As this is being addressed between PIC No. 1 and 2 and no decisions have been made at this point, it won't have an impact on the EA schedule and they will have the opportunity to provide input/consult on the project.

We apologize for any inconvenience. Let me know if you need any additional information.

Thanks
Jamie



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO
Tel: 1.833.WTINFRA (984.6372) ext. 101
Cell: 519.400.6701
WT Infrastructure Solutions Inc.
jamie.witherspoon@wtinfrastructure.ca

From: Danielle Culver <DCulver@forterie.ca>
Sent: Wednesday, December 13, 2023 11:36 AM
To: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>; Andrew Tulk <andrew.tulk@wtinfrastructure.ca>
Subject: Re: Townline Road Servicing Study - Status Update

Good Morning Jamie & Andrew,

I hope you are both doing well!

I just wanted to follow-up with you on my inquiry below, any information you have would be great.

Thanks,
Danielle

Danielle Culver

Executive Assistant / Jr. Economic Development Officer
The Corporation of the Town of Fort Erie | Economic Development & Tourism Services
1 Municipal Centre Drive, Fort Erie, ON, L2A 2S6
T: 905-871-1600 x 2253 | E: dculver@forterie.ca
www.forterie.ca

From: Kelly Walsh/FortErie
To: Danielle Culver/FortErie@TownOfFortErie
Cc: jamie.witherspoon@wtinfrastructure.ca, "Andrew Tulk" <andrew.tulk@wtinfrastructure.ca>
Date: 20-11-2023 09:40 AM
Subject: Re: Townline Road Servicing Study - Status Update

Doesn't ring a bell. Jamie or Andrew?

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services
The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: Danielle Culver/FortErie
To: Kelly Walsh/FortErie@TownOfFortErie
Date: 2023-11-20 09:32 AM
Subject: Re: Townline Road Servicing Study - Status Update

Hi Kelly,

Thank you for the quick reply, it is much appreciated!

Do you know if Enereau Systems has participated in any piece of this? They had inquired with our office on this project previously, and I was wondering if they expressed interest in it or if they are a stakeholder? Any info you have would be great.

Thanks,
Danielle

From: Kelly Walsh/FortErie
To: Danielle Culver/FortErie@TownOfFortErie
Date: 20-11-2023 09:19 AM
Subject: Re: Townline Road Servicing Study - Status Update

Stakeholders have been invited to submit their thoughts on the project, from which we will form a preferred solution to be presented to the public in early 2024 at another PIC. From that, again the public will be able to voice their opinion on the preferred solution.

Following, staff will take a report to council for approval likely in February or March on the preferred alternatives selected through the Municipal Class EA process.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: Danielle Culver/FortErie
To: Kelly Walsh/FortErie@TownOfFortErie
Date: 2023-11-20 09:12 AM
Subject: Townline Road Servicing Study - Status Update

Good Morning Kelly,

I hope you are doing well and had a great weekend! :)

I wanted to circle back with you on the [Townline Road Servicing Study](#) to see if there is any update that you could share in regards to the project timeline? I was also wondering if a second PIC will be held for the project?

Any information you have would be greatly appreciated.

Thanks,
Danielle

Danielle Culver

Executive Assistant / Jr. Economic Development Officer

The Corporation of the Town of Fort Erie | Economic Development & Tourism Services
1 Municipal Centre Drive, Fort Erie, ON, L2A 2S6

Tiziana Venditto

From: James Hotchkies [REDACTED]
Sent: Thursday, December 14, 2023 9:34 AM
To: Tiziana Venditto
Cc: Jamie Witherspoon; Craig Hotchkies
Subject: Re: 22-2054 Townline Rd EA - Notice of Commencement and PIC No.1

Dear Tiziana,

Thank you for the email & attachments. We will look forward to further discussions in 2024.

Best regards,

Jim Hotchkies

James W. Hotchkies, M.Eng., P.Eng.
CEO

Enereau Systems Group Inc.



www.enereau.com



From: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>
Date: Wednesday, December 13, 2023 at 1:28 PM
To: James Hotchkies [REDACTED]
Cc: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Subject: 22-2054 Townline Rd EA - Notice of Commencement and PIC No.1

Dear James Hotchies,

Please find in attachment the Notice of Commencement and PIC No. 1 for the Townline Road EA project. I apologies for not reaching out to you earlier. I have missed your contact in my contact list.

You are now in the stakeholders list for this project and all the information regarding this project, including the next steps, will be shared with you at this address.

Please note that there would be a PIC No. 2 to be presented to the public in early 2024 and a Notice of PIC No.2 will be sent out with additional information regarding the date/time.

Feel free to contact me or the Project Manager Jamie Witherspoon (in Cc) if any additional information is needed.

Best Regards,
Tiziana



Tiziana Venditto

Water and Wastewater Process Analyst

WT Infrastructure Solutions Inc.

tiziana.venditto@wtinfrastructure.ca

Tiziana Venditto

From: Kelly Walsh <KWalsh@forterie.ca>
Sent: Monday, November 20, 2023 12:21 PM
To: Budd, Bob [REDACTED]
Subject: RE: Fwd: Black Creek Center - Sales/Development Update

Bob:

My apologies on you not getting the notice. I'll look into that with our consultant as I had passed your name to be on the stakeholders list.

The presentation materials are here: <https://letstalk.forterie.ca/townline-road-servicing-study>

No decisions have been made yet as we are still soliciting comments from the public.

Once comments have been received, we will develop a preferred servicing/finance opinion for a second round of public comment, and from that take a report to council for approval.

Detailed design and construction will follow.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: [REDACTED]
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-11-20 11:50 AM
Subject: RE: Fwd: Black Creek Center - Sales/Development Update

Good morning Kelly,

I have recently learned the Town of Fort Erie held a public presentation/meeting on November 2, 2023, regarding Black Creek and results of the Municipal Class E A that I have written to you about over the past year. I was never advised of the presentation although I was told I was on the contact list.

Can you please send me a copy of the results of the study and presentations and final recommendations related to the construction of the future sanitary sewer extension/pumping station location recommendations etc.

Thank you.

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions



From: Kelly Walsh <KWalsh@forterie.ca>
Sent: August 16, 2023 1:54 PM
To: Budd, Bob 
Subject: Re: Fwd: Black Creek Center - Sales/Development Update

CAUTION: External Sender
No, its delayed. End of year is reasonable at worst I hope.

Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob" 
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-08-16 01:51 PM
Subject: Re: Fwd: Black Creek Center - Sales/Development Update

Thank you, Kelly. I had heard nothing since our last communication, so I am glad to be added to a contacts list for future updates.

You had mentioned the MEA should be completed by the end of September. Is that still the case?

Bob Budd
Sales Representative - Senior Associate Land
Sales and Acquisitions





From: Kelly Walsh <KWalsh@forterie.ca>
Sent: Wednesday, August 16, 2023 1:44:33 PM
To: Budd, Bob 
Subject: Re: Fwd: Black Creek Center - Sales/Development Update

CAUTION: External Sender

Bob the study is underway, you have been added to the list of contacts. The owners of each property are on the stakeholder list.

Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob" 
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-08-16 01:38 PM
Subject: Fwd: Black Creek Center - Sales/Development Update

Kelly, can you please reply to my email of last week as shown below.

Thank you.

Bob Budd
Sales Representative - Senior Associate Land



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From: Budd, Bob (Avison Young - CA)
Sent: Thursday, August 10, 2023 4:32:43 PM
To: Kelly Walsh <KWalsh@forterie.ca>
Subject: RE: Black Creek Center - Sales/Development Update

Good afternoon,

Kelly, can you please provide me with an update as it relates to the status of the Municipal Class EA, discussions with land owners and the potential timing for the extension and construction of the sanitary sewer along Townline Road to service the balance of the lands in the SW quadrant of the QEW and Netherby Road.

Thank you.

Bob Budd
Sales Representative - Senior Associate Land Sales and Acquisitions

[REDACTED]

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 24, 2023 12:36 PM

To: Budd, Bob (Avison Young - CA) [REDACTED]

Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender

<https://www.forterie.ca/WebSite/webTOFE.nsf/contentPage.xsp?documentId=A433B629E1FF82CE85256EF4006AECDC&action=openDocument>

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob" [REDACTED]

To: "Kelly Walsh" <KWalsh@forterie.ca>

Date: 2023-03-24 12:17 PM

Subject: RE: Black Creek Center - Sales/Development Update

Good afternoon Kelly,

Can you please provide an update on your March 8th comment below:

"Bob, the base servicing study is done. We are taking a report to March 20 council to proceed to municipal class EA which will gain MOE approval to build the sewer system. This should be completed by September. Financial conditions will be set through the class EA."

Thank you.

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions [REDACTED]

[REDACTED]

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 15, 2023 12:02 PM

To: Budd, Bob (Avison Young - CA) [REDACTED]

Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender

Its a moot point, BLCH will not allow outside sewage onto their site. Long legal story

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" [REDACTED]
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-03-15 11:28 AM
Subject: RE: Black Creek Center - Sales/Development Update

I hope that is not an issue.

Do you know if that is now being looked at by anyone else, such as Amit Khera, BCLHC or GSM?

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions
[REDACTED]

From: Kelly Walsh <KWalsh@forterie.ca>
Sent: March 15, 2023 11:24 AM
To: Budd, Bob (Avison Young - CA) [REDACTED]
Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender
We did not look at that.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" [REDACTED]
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-03-15 11:19 AM
Subject: RE: Black Creek Center - Sales/Development Update

Kelly, has it now been determined there is sufficient capacity at the BCLHC pumping station to service all the lands in the SW quadrant of the QEW and Netherby Road? (43 acres + 4.7 acre properties)

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions

[REDACTED]

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 14, 2023 3:02 PM

To: Budd, Bob (Avison Young - CA) [REDACTED]

Subject: Re: Black Creek Center - Sales/Development Update

CAUTION: External Sender

I do not know what the mechanism for occupancy is. I think it was permission to construct in road allowance similar to a utility.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" [REDACTED]

To: "Kelly Walsh" <KWalsh@forterie.ca>

Date: 2023-03-14 02:56 PM

Subject: Re: Black Creek Center - Sales/Development Update

So, does that mean the Town holds an easement over the land of the entire length of the force main pipe outside BCLHC to the lagoon and BCLHC owns the actual infrastructure?

Bob Budd

Sales Representative - Senior Associate Land

Sales and Acquisitions

[REDACTED]

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From: Kelly Walsh <KWalsh@forterie.ca>
Sent: Tuesday, March 14, 2023 2:17:21 PM
To: Budd, Bob (Avison Young - CA) [REDACTED]
Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender
correct - its the discharge pipe from the trailer park pump station.

Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
The Corporation of the Town of Fort Erie
1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6
W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" [REDACTED]
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-03-14 02:15 PM
Subject: RE: Black Creek Center - Sales/Development Update

That makes sense.

So is the Forcemain considered the entire length of pipe from the Pumping Station to the lagoon?

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 14, 2023 2:12 PM

To: Budd, Bob (Avison Young - CA)

Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender

municipal class environmental assessment.

Projects are approved through either the planning act or an MCEA.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)"

To: "Kelly Walsh" <KWalsh@forterie.ca>

Date: 2023-03-14 02:09 PM

Subject: RE: Black Creek Center - Sales/Development Update

Thank you Kelly.

Perhaps I should know but what is **MCEA**?

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 14, 2023 1:55 PM

To: Budd, Bob (Avison Young - CA)

Subject: Re: Black Creek Center - Sales/Development Update

CAUTION: External Sender

Sorry Bob dealing with quite a few issues at the moment. Answers in red next to your questions. March 8, not 6.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" [REDACTED]
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: 2023-03-14 01:10 PM
Subject: Re: Black Creek Center - Sales/Development Update

Good afternoon Kelly,

Do you think I will hear back from you today regarding the questions I asked in my March 6th correspondence. I plan to speak with the owner of the 4.7 acre site tomorrow.

Thanks.

Bob Budd

Sales Representative - Senior Associate Land

Sales and Acquisitions



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[LinkedIn](#) | [Instagram](#)

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From: Kelly Walsh <KWalsh@forterie.ca>
Sent: Wednesday, March 8, 2023, 9:34 a.m.
To: Budd, Bob (Avison Young - CA) <>
Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender
Sorry I will but I'm in a meeting

Budd, Bob (Avison Young - CA) --- RE: Black Creek Center - Sales/Development Update ---

From: "Budd, Bob (Avison Young - CA)" <>
To: "Kelly Walsh" <KWalsh@forterie.ca>
Date: Wed, Mar 8, 2023 9:32 a.m.
Subject: RE: Black Creek Center - Sales/Development Update

Kelly, thanks for the sanitary sewer progress update.

Will someone else be responding to the other questions I have asked?

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions



From: Kelly Walsh <KWalsh@forterie.ca>

Sent: March 8, 2023 8:59 AM

To: Budd, Bob (Avison Young - CA) 

Subject: RE: Black Creek Center - Sales/Development Update

CAUTION: External Sender

Bob, the base servicing study is done. We are taking a report to March 20 council to proceed to municipal class EA which will gain MOE approval to build the sewer system. This should be completed by September. Financial conditions will be set through the class EA.

The wheels of government grind slow, but they do grind.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)" 

To: "Kelly Walsh" <KWalsh@forterie.ca>

Date: 2023-03-06 08:50 AM

Subject: RE: Black Creek Center - Sales/Development Update

Good morning, Kelly

Do you have any update for me since your November 1, 2022 correspondence?

Can the property located along Netherby Road and Townline Roads (picture attached) be serviced with a sanitary sewer line without going through the pumping station in BCLHC? **Yes, once the municipal sanitary system is constructed. We foresee this happening in 2024 assuming we can come up with suitable financial arrangement for all landowners in the area for contributing to the construction (development pays for development). For clarification, the MCEA will be done in September, not the construction.**

Also, where might I obtain the drawing for the as-built sanitary sewer line going from the private pumping station to the Regional lagoons and who is the owner of the sanitary line? **The owner of the FORCEMAIN (not sewer, big difference) is Parkbridge/Black Creek Leisure Homes. Unless you have you own sewage pump setup, you cannot connect into it, and then if you want, you would need an agreement with both Parkbridge and the Town.**

I have now been approached by the owners of the subject lands, Uzma Mazhar and Fiza Farrukh. Perhaps they have already been in touch with the Town respecting this inquiry? **Not to my knowledge**

Bob Budd

Sales Representative - Senior Associate Land Sales and Acquisitions

From: Kelly Walsh <KWalsh@forterie.ca>

Sent: November 1, 2022 11:43 AM

To: Budd, Bob (Avison Young - CA)

Subject: Re: Black Creek Center - Sales/Development Update

CAUTION: External Sender

Bob:

The plan is to finish the servicing study asap; WT Infrastructure is on track for that.

Discussions will be held with all affected parties regarding cost sharing and front ending (development pays for development). I expect a bit of push back here.

Following, we need to do a Class EA as the project isn't covered under the planning act, and following that, construction can occur which is likely in late 2023 or early 2024.

Kelly M. Walsh, P. Eng.

Director, Infrastructure Services

The Corporation of the Town of Fort Erie

1 Municipal Centre Drive | Fort Erie, ON | L2A 2S6

W: 905-871-1600 ext. 2400

Please consider the environment before printing this email

From: "Budd, Bob (Avison Young - CA)"

To: "Kelly Walsh" <KWalsh@forterie.ca>

Date: 2022-11-01 10:25 AM

Subject: Black Creek Center - Sales/Development Update

Good morning, Kelly,

Given that you previously informed me the Town was expecting to complete a servicing study by the end of November 2022, I thought it important to provide you with a further update of the sales and development activity in Black Creek Center.

As you know, Parcel C has been sold. The site will be developed with a McDonalds restaurant, convenience store and gas bar.

The buyers of Parcel D (public storage facility) have retained a planner and surveyor and are focusing on applying to the Town soon to sever those lands from the remaining property. At the same time, the prospective buyers of PARCEL A (the lands south of the EP lands) are progressing with their due diligence with the intention to construct a 190-bed long-term care facility.

Also, discussions continue with yet another buyer for the 13 acres (Parcel B) where the intended use is a commercial plaza at the north end of an internal road with other commercial/retail buildings to the south toward Townline Road. Some of these buildings may be constructed with residences uses on second floor locations. All such uses are permitted under the current zoning.

As all these lands are within the urban boundary and have been for years, I am of the opinion they will require full municipal services (storm sewers may be an exception). I further understand all the necessary services exist along Townline Road except for a sanitary sewer line.

Obviously, every buyer and potential buyer ask me “when” will the sanitary line will be constructed.

As current and prospective buyers move forward through the planning process the answer to the above question becomes more pressing. Can you please update me regarding the status of the current servicing study and once it is completed, what are the Town’s next steps and potential timing.

Thank you for your assistance.

Bob Budd

Tiziana Venditto

From: Jamie Witherspoon
Sent: Thursday, November 2, 2023 11:18 AM
To: Greg Hunter
Cc: Kelly Walsh; Tiziana Venditto; Andrew Tulk
Subject: RE: Townline Road Servicing Study - Open House

Mr. Hunter,

Yes, your numbers are correct. Our study is focused on how to get wastewater to the Stevensville Douglastown Lagoons, as well as addressing water and stormwater. At build-out, the flow from the zoning based maximum development would exceed the current capacity. It is our understanding that Niagara Region will be evaluating options for the Stevensville Douglastown Lagoons which may include expanding them or redirecting the wastewater to one of their other plants in the area. This would need to occur before ultimate build-out flows are generated; however, depending on the proposed wastewater flows associated with planned development, the Townline Road area could develop provided that the wastewater flows do not result in exceeding the current available capacity of the treatment facility and the Town allocates that capacity to the Townline development lands.

It is important to note that the flows indicated in our study are based on the zoning of the land and not any specific development proposed at this time. They are intended to be conservative and reflect to maximum densities allowable under the zoning requirements. Furthermore, while the wastewater capacity and the servicing study are linked, the servicing study is a planning study that can be completed and approved recognizing that there is a current downstream restriction. If the Class EA process is completed and the preferred alternative is the servicing of the area, the Town may decide to construct all of the necessary servicing infrastructure, but the existing and proposed development serviced cannot result in the rated capacity of the lagoons being exceeded until the lagoon rated capacity were increased or flow diverted to another facility.

We will be glad to discuss this with you further at the Public Information Centre this afternoon.

Thanks

Jamie



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO

Tel: 1.833.WTINFRA (984.6372) ext. 101

Cell: 519.400.6701

WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca

From: Greg Hunter [REDACTED]
Sent: Thursday, November 2, 2023 10:11 AM
To: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Subject: Townline Road Servicing Study - Open House

Hello Mr. Witherspoon, My name is Greg Hunter and I'm planning to attend tonight's Townline Road Servicing Study - Open House. I have (1) question for you. Please see the attached file. On page 6 of WTI's report 22-2054, previously submitted to the town of Fort Erie, it shows the average sewage flow will go from approx. 180 m3/day to 1,000 m3/day at ultimate build-out of the

development. I think the capacity of the Stevensville-Doulgastown sewage lagoons is 2,189 m³/day, as defined by the Ministry of Environment operating certificate. Please tell me if I'm interpreting this correctly. Is the WTI report suggesting that the existing sewage flow consumes approx. 8% of the sewage lagoon capacity and the proposed development, when completed, will consume 46% of the sewage lagoon capacity? (ie, are my numbers and math correct?). Please advise and I will follow-up with you at the meeting tonight.

Thank You,
Greg Hunter

Tiziana Venditto

From: Tiziana Venditto
Sent: Wednesday, November 1, 2023 4:53 PM
To: [REDACTED]
Subject: RE: Notice of Public Information Centre - Townline Road Servicing Class Environmental Assessment

Hi Peter,
Thanks for letting us know. At this link you will find everything that has been published so far [Townline Road Servicing Study | Let's Talk Fort Erie](#)

However, most of the information (objectives, alternatives, costs, etc.) will be shared tomorrow.

Let me know if you have any questions.

Best,
Tiziana Venditto



Tiziana Venditto
Water and Wastewater Process Analyst
WT Infrastructure Solutions Inc.
tiziana.venditto@wtinfrastructure.ca

From: [REDACTED]
Sent: Wednesday, November 1, 2023 3:58 PM
To: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>
Subject: RE: Notice of Public Information Centre - Townline Road Servicing Class Environmental Assessment

Hi Tiziana,

Yes, I plan to attend tomorrow's PIC. Is there information that I can review in advance of the meeting?

Thanks,

Peter Horn, P.Eng., MLA
Principal



Horn Design & Consulting Inc.



From: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>

Sent: Thursday, October 19, 2023 8:53 AM

Subject: Notice of Public Information Centre - Townline Road Servicing Class Environmental Assessment

The Town of Fort Erie (the Town) is completing a Municipal Class Environmental Assessment (Class EA) study to evaluate and select preferred solutions to provide water, sanitary and stormwater services to the area north and south of Townline Road between Netherby Road and the QEW in order to facilitate the future development of those lands.

You are being contacted because you or your organization have been identified as either being a stakeholder or potentially having interest or input into this project.

This study is being undertaken as a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class Environmental Assessment process includes public and agency consultation, the evaluation of alternatives, assessment of the potential effects of the proposed project and the identification of mitigation measures.

Public consultation to collect feedback on the proposed solutions is an important component of the project. Therefore, the Town of Fort Erie is requesting public input to identify options to address the study findings and optimize the evaluation process. A Public Information Centre is being held to gather input from stakeholders. All those interested in the project are invited to attend the Public Open House. The Public Information Centre No. 1 will be held on:

Thursday, November 2, 2023

From 4:00 pm to 7:00 pm

at Stevensville Memorial Hall, 2508 Stevensville Road, Stevensville, Ontario, ON

All comments and information received regarding this project are being collected under the authority of the "Municipal Act" to assist the Town of Fort Erie in making a decision. Under the "Municipal Act", personal information such as name, address, telephone number, and property location that may be included in a submission becomes part of the public record.

If you have any questions, or would like additional information regarding this project, please contact the Consultant WT Infrastructure Solution Inc.'s contact at jamie.witherspoon@wtinfrastructure.ca or the Town's Contact Kelly Walsh, Director of Infrastructure Services at kwash@forterie.ca.

Sincerely,



Tiziana Venditto

Water and Wastewater Process Analyst

WT Infrastructure Solutions Inc.

tiziana.venditto@wtinfrastructure.ca

November 29, 2023

Haudenosaunee Development Institute, on behalf of the
Haudenosaunee Confederacy Chiefs Council
16 Sunrise Court, Suite 407
Ohsweken, ON P0T 1M0

**RE: Project Notification – Stage 1 Archaeological Assessment, Townline Road
Sanitary Sewer, Town of Fort Erie, ON**

Dear Todd Williams, Owen Greene, and Sharann Martin,

Archaeological Research Associates Ltd. (ARA) has been contracted by WT Infrastructure for the Stage 1 archaeological assessment to be conducted for the proposed Townline Road Sanitary Sewer Servicing upgrades. The study area is approximately 57.23 ha (141.42 ac) in size and is located on multiple lots and concession in the Town of Fort Erie, Geographic Townships of Bertie and Willoughby, former Welland County (see Map 1).

The Stage 1 assessment will consist of comprehensive background research into the study area. This is accomplished through an examination of the archaeology, history, geography, and current land conditions in the vicinity of the project lands. This stage also generates an inventory of known archaeological sites within 1 km and previous archaeological fieldwork results within 50 m of the study area, which are used to assist in predicting zones of archaeological potential. The results of ARA's background research as well as the analysis and evaluation of the study area's archaeological potential, will form appropriate recommendations (i.e., no further work in areas of no archaeological potential and Stage 2 archaeological assessment for any areas of archaeological potential).

Fieldwork for this project has not yet been scheduled but it is set to begin in Fall 2023 as long as field conditions permit. ARA has assumed that the Stage 1 property inspection will be completed in 1 day with 1 Field Director.

Agreements for this project will be executed directly with the Town of Fort Erie. Please forward agreements to Kelly Walsh, Director – Infrastructure Services at kwalsh@forterie.ca for signing.

We welcome your contribution to the project and are always happy to address any concerns that may arise. If you would like to participate in this project, please contact Megan DeVries at megan.devries@araheritage.ca or 519-573-6546 to confirm.

Best,



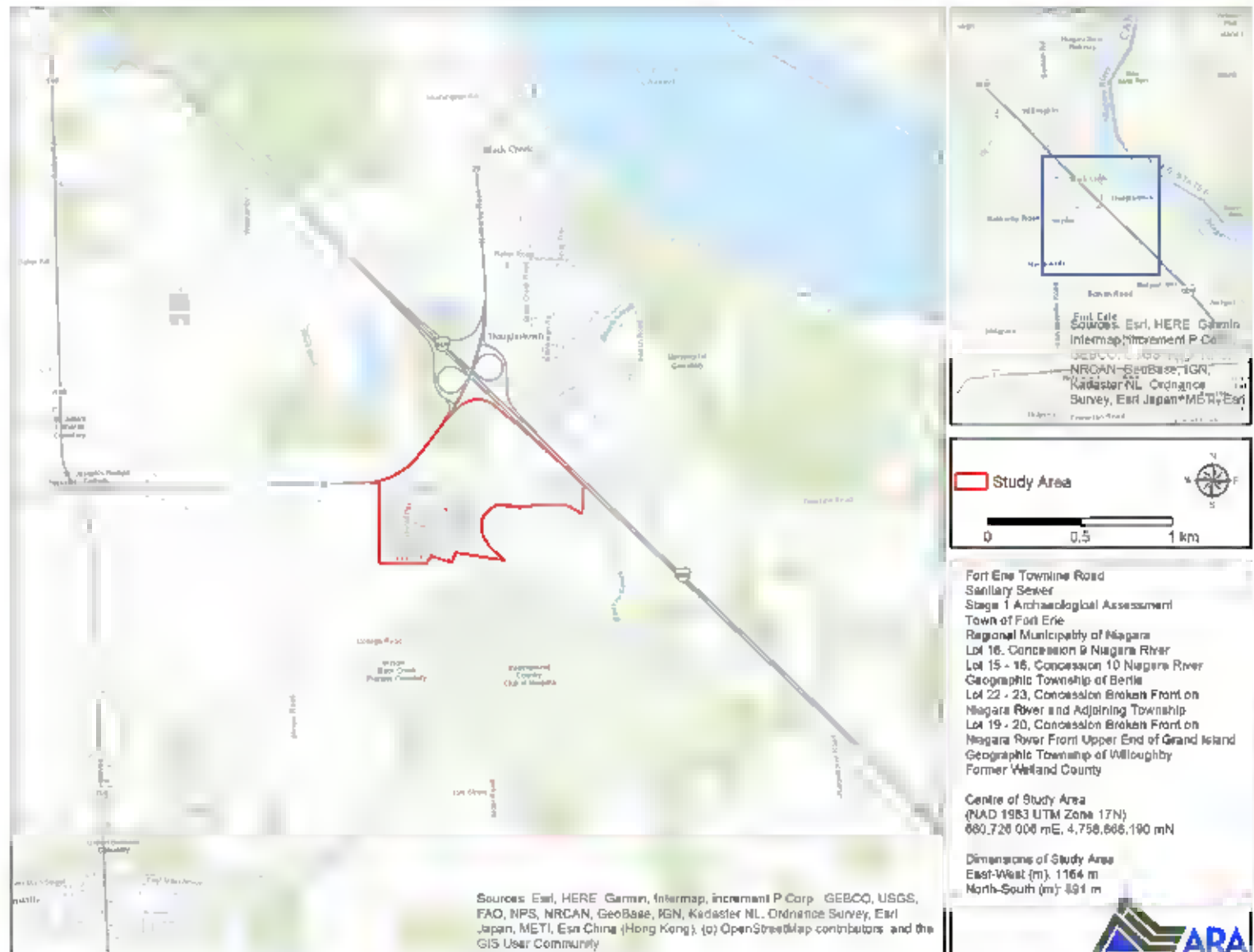
Paul Racher, MA, CAHP, RPA

Principal - Archaeological Research Associates Ltd.

Hamilton Office: 205 Cannon St East, Hamilton, ON, L8L 2A9

Kitchener Office: 465 Maple Ave – Unit 9, Kitchener, ON N2H 6N5

Map 1: Location of Stage 1 Assessments – Townline Road Sanitary Sewer, Fort Erie, ON



November 29, 2023

Department of Consultation and Accommodation, on behalf of the
Mississaugas of the Credit First Nation
4065 Highway 6 North
Hagersville, ON N0A 1H0

**RE: Project Notification – Stage 1 Archaeological Assessment, Townline Road
Sanitary Sewer, Town of Fort Erie, ON**

Dear Adam LaForme,

Archaeological Research Associates Ltd. (ARA) has been contracted by WT Infrastructure for the Stage 1 archaeological assessment to be conducted for the proposed Townline Road Sanitary Sewer Servicing upgrades. The study area is approximately 57.23 ha (141.42 ac) in size and is located on multiple lots and concession in the Town of Fort Erie, Geographic Townships of Bertie and Willoughby, former Welland County (see Map 1).

The Stage 1 assessment will consist of comprehensive background research into the study area. This is accomplished through an examination of the archaeology, history, geography, and current land conditions in the vicinity of the project lands. This stage also generates an inventory of known archaeological sites within 1 km and previous archaeological fieldwork results within 50 m of the study area, which are used to assist in predicting zones of archaeological potential. The results of ARA's background research as well as the analysis and evaluation of the study area's archaeological potential, will form appropriate recommendations (i.e., no further work in areas of no archaeological potential and Stage 2 archaeological assessment for any areas of archaeological potential).

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Best,



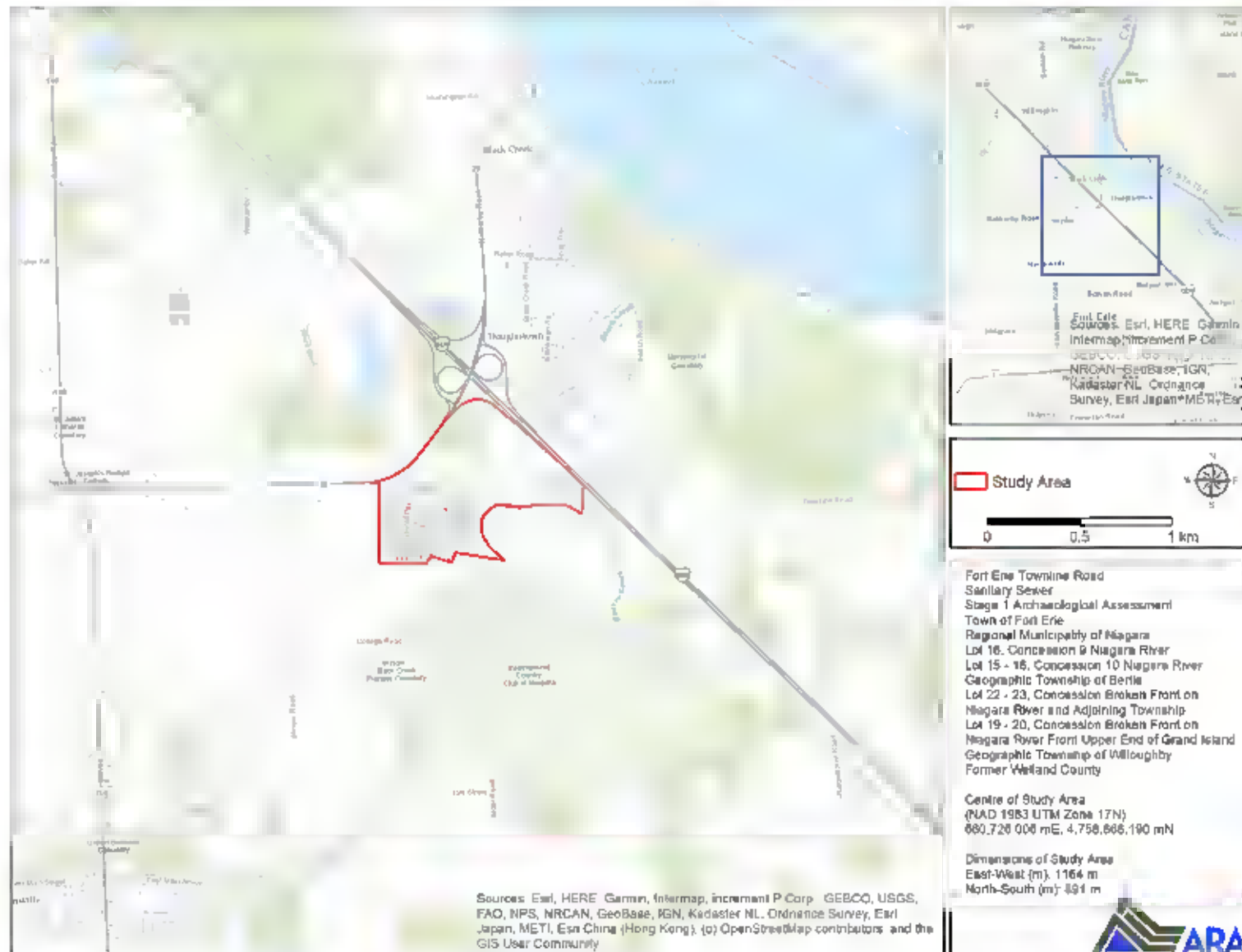
Paul Racher, MA, CAHP, RPA

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Hamilton Office: 205 Cannon St East, Hamilton, ON, L8L 2A9

Kitchener Office: 465 Maple Ave – Unit 9, Kitchener, ON N2H 6N5

Map 1: Location of Stage 1 Assessments – Townline Road Sanitary Sewer, Fort Erie, ON



November 29, 2023

Six Nations Lands & Resources Department, on behalf of the
Six Nations of the Grand River
2498 Chiefswood Road, PO Box 500
Ohsweken, ON N0A 1M0

**RE: Project Notification – Stage 1 Archaeological Assessment, Townline Road
Sanitary Sewer, Town of Fort Erie, ON**

Dear Lonny Bomberly, Tayler Hill, Tanya Hill-Montour, and Dawn LaForme,

Archaeological Research Associates Ltd. (ARA) has been contracted by WT Infrastructure for the Stage 1 archaeological assessment to be conducted for the proposed Townline Road Sanitary Sewer Servicing upgrades. The study area is approximately 57.23 ha (141.42 ac) in size and is located on multiple lots and concession in the Town of Fort Erie, Geographic Townships of Bertie and Willoughby, former Welland County (see Map 1).

The Stage 1 assessment will consist of comprehensive background research into the study area. This is accomplished through an examination of the archaeology, history, geography, and current land conditions in the vicinity of the project lands. This stage also generates an inventory of known archaeological sites within 1 km and previous archaeological fieldwork results within 50 m of the study area, which are used to assist in predicting zones of archaeological potential. The results of ARA's background research as well as the analysis and evaluation of the study area's archaeological potential, will form appropriate recommendations (i.e., no further work in areas of no archaeological potential and Stage 2 archaeological assessment for any areas of archaeological potential).

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Best,



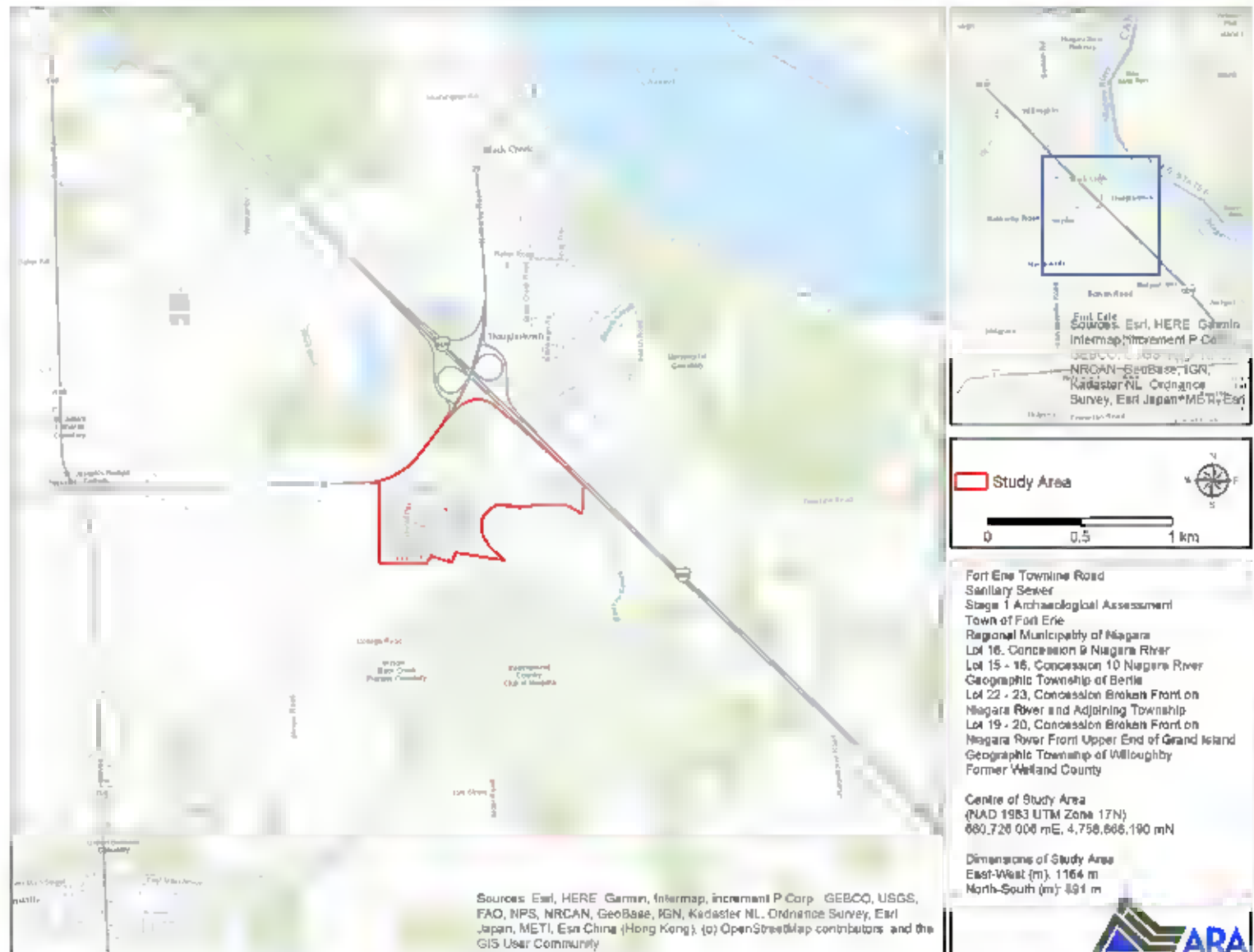
Paul Racher, MA, CAHP, RPA

Principal - Archaeological Research Associates Ltd.

Hamilton Office: 205 Cannon St East, Hamilton, ON, L8L 2A9

Kitchener Office: 465 Maple Ave – Unit 9, Kitchener, ON N2H 6N5

Map 1: Location of Stage 1 Assessments – Townline Road Sanitary Sewer, Fort Erie, ON



Tiziana Venditto

From: Jamie Witherspoon
Sent: Wednesday, November 29, 2023 1:39 PM
To: Tiziana Venditto
Subject: FW: ARA Project Notification - Stage 1 Townline Road Sanitary Sewer - MCFN
Attachments: DOCA Archaeological Review Agreement 2023.docx; MCFN FLR Participation Agreement 2023.docx



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO

Tel: 1.833.WTINFRA (984.6372) ext. 101

Cell: 519.400.6701

WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca

From: Adam LaForme <Adam.LaForme@mncfn.ca>
Sent: Wednesday, November 29, 2023 1:27 PM
To: megan.devries@araheritage.ca
Cc: 'Sarah Bolstridge' <sarah.bolstridge@araheritage.ca>; 'Kait Kenel' <kait.kenel@araheritage.ca>; Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>; kwalsh@forterie.ca
Subject: RE: ARA Project Notification - Stage 1 Townline Road Sanitary Sewer - MCFN

Good Afternoon Megan and Kelly,

Thank you for reaching out to the Mississaugas of the Credit First Nation (MCFN), sharing project information and confirming our interest in this project.

MCFN would like to review the draft Stage 1 Archaeological assessment when it is available. Please find the attached Review agreement that covers the cost of the review. If you could please fill in the additional required information, highlighted in yellow, and return to us a signed copy, that would be greatly appreciated.

Please note if the stage 1 Assessment recommends stage 2 fieldwork, MCFN would like to have a Field Liaison Representatives ("FLRs") on location while fieldwork is occurring, who can ensure that the Nation's special interests and concerns are respected and considered. I have included the participation agreement for reference and future consideration.

If you have any questions or concerns about this process please contact me.

Kind regards,

Adam LaForme (he/him)
Archaeological Operations Supervisor



Mississaugas of the Credit First Nation (MCFN)
Department of Consultation and Accommodation (DOCA)
4065 Highway 6 North, Hagersville, ON N0A 1H0
Cell 289-527-2763

From: megan.devries@araheritage.ca <megan.devries@araheritage.ca>
Sent: November 29, 2023 12:07 PM
To: Adam LaForme <Adam.LaForme@mncfn.ca>
Cc: 'Sarah Bolstridge' <sarah.bolstridge@araheritage.ca>; 'Kait Kenel' <kait.kenel@araheritage.ca>;
jamie.witherspoon@wtinfrastructure.ca; kwash@forterie.ca
Subject: ARA Project Notification - Stage 1 Townline Road Sanitary Sewer - MCFN

Good afternoon!

Archaeological Research Associates Ltd. (ARA) has been contracted by WT Infrastructure for the Stage 1 archaeological assessment of Townline Road Sanitary Sewer in the Town of Fort Erie. Please see the attached letter for specific information about the project and our upcoming assessment. Fieldwork for this project has not yet been scheduled.

Any necessary agreements for this project will be executed directly with the Town of Fort Erie. Please forward participation agreements to Kelly Walsh (kwash@forterie.ca) for review and execution.

We welcome your participation on this project!
Megan.

Megan DeVries, M.A. (she/her)
Indigenous Engagement Specialist
Archaeological Research Associates Ltd.
Hamilton Office: 205 Cannon St East, Hamilton, ON L8L 2A9
Kitchener Office: 465 Maple Ave – Unit 9, Kitchener, ON N2H 6N5
C 519.573.6546 | E megan.devries@araheritage.ca | www.araheritage.ca



Privileged to work within the treaty lands and traditional territories of the Indigenous peoples of Turtle Island.

Tiziana Venditto

From: Jamie Witherspoon
Sent: Thursday, November 2, 2023 10:07 PM
To: Tiziana Venditto
Subject: FW: Townline Road Servicing Study - Stevensville Douglastown Sewage Lagoon Capacity
Attachments: 7580-4NYH8K-14.pdf; SD_Sewage_Lagoon_MOE_Certificates_2023-11-02.jpg



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO

Tel: 1.833.WTINFRA (984.6372) ext. 101

Cell: 519.400.6701

WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca

From: Greg Hunter <[REDACTED]>
Sent: Thursday, November 2, 2023 9:47 PM
To: kwalsh <kwalsh@forterie.ca>; Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Subject: Townline Road Servicing Study - Stevensville Douglastown Sewage Lagoon Capacity

Hello Mr. Walsh & Mr. Witherspoon,
Please see the attached files. During tonight's open house I noticed a couple places on the display boards where the capacity of the Stevensville Douglastown sewage lagoons was quoted incorrectly as 2.7 ml/day. This same error is also shown in the Niagara Region's 2016 Water & Wastewater Master Plan, which Mr. Phil Lambert acknowledged during his presentation to Fort Erie Town Council on 23-January-2023.

Ministry of Environment Certificate 3-1824-80-827, dated 15 December 2000, page 2 of 6, item 1.1 says, "The Owner shall ensure that the average daily flow of sewage into the sewage treatment plant does not exceed 2,289 m³/d." If you have a copy of any other up-to-date MOE certificate which shows a different capacity, would you please email it to me?

I will copy this comment to the TOFE "Let's Talk" web page so it will be captured as part of your project study.

Regards,

Greg Hunter

Tiziana Venditto

From: EA Notices to WRegion (MECP) <eanotification.wregion@ontario.ca>
Sent: Tuesday, October 17, 2023 8:31 AM
To: Tiziana Venditto
Subject: RE: Fort Erie, Municipal Class EA, Townline Road Servicing Study

Good morning,

Sincere apologies for the delay.

Please find below the list of Indigenous communities that may have interest within the work being proposed:

- Mississaugas of the Credit Nation
- Six Nations of the Grand River (both Elected Council, and Traditional Council (Haudenosaunee Confederacy Chiefs Council (HCCC) / Haudenosaunee Development Institute (HDI)).

Regards,

Joan Del Villar Cuicas (she/her)
Regional Environmental Planner
Project Review Unit | Environmental Assessment Branch
Ontario Ministry of the Environment, Conservation and Parks
Joan.delvillarcuicas@ontario.ca | Phone: 365-889-1180

From: Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>
Sent: July 18, 2023 9:12 AM
To: EA Notices to WRegion (MECP) <eanotification.wregion@ontario.ca>
Subject: Fort Erie, Municipal Class EA, Townline Road Servicing Study

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

Dear Officer,

The Town of Fort Erie in consulting with WT Infrastructure Solutions Inc. is completing a Municipal Class Environmental Assessment (Class EA) study to evaluate and select preferred solutions to provide water, sanitary and stormwater services to the area north and south of Townline Road between Netherby Road and the QEW. Location of the project area is provided in the picture below.

This study is being undertaken as a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. According to the requirements of the MCEA, we are in the process of sending out Notice of Commencement for the aforementioned project in order to advance public and agency consultation.

Before to send the Notice of Commencement out to all the parties, I would like to share the file in attachment to confirm we identified all the required contacts and Indigenous community or if there are any additional contacts that we should engage with.

If any additional information would be required, please do not hesitate to connect with me for any further clarifications or questions you may have.

Thanks,
Tiziana Venditto

Project Area Location:



Tiziana Venditto

Water and Wastewater Process Analyst

WT Infrastructure Solutions Inc.

tiziana.venditto@wtinfrastructure.ca

Tiziana Venditto

From: Jamie Witherspoon
Sent: Friday, August 25, 2023 12:24 PM
To: Tiziana Venditto
Subject: FW: NPCA Comments re: Townline Road Servicing Class Environmental Assessment, Notice of Study Commencement
Attachments: NPCA Comments, 2023-08-24 - PLEA202300901, Townline Road Servicing Class EA (PDF).pdf; NPCA Comments, 2023-08-24 - PLEA202300901, Townline Road Servicing Class EA (WORD).docx

Follow Up Flag: Flag for follow up
Flag Status: Flagged



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO

Tel: 1.833.WTINFRA (984.6372) ext. 101

Cell: 519.400.6701

WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca

From: Kelly Walsh <KWalsh@forterie.ca>
Sent: Friday, August 25, 2023 12:52 AM
To: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Subject: Fw: NPCA Comments re: Townline Road Servicing Class Environmental Assessment, Notice of Study Commencement

Colleen Bain --- NPCA Comments re: Townline Road Servicing Class Environmental Assessment, Notice of Study Commencement ---

From: "Colleen Bain" <CBain@npca.ca>
To: kwash@forterie.ca
Cc: "David Deluce" <ddeluce@npca.ca>, "Amy Parks" <aparks@npca.ca>, "Theresa Bukovics" <tbukovics@npca.ca>, "Carly Mason" <cmason@npca.ca>
Date: Thu, Aug 24, 2023 4:58 p.m.
Subject: NPCA Comments re: Townline Road Servicing Class Environmental Assessment, Notice of Study Commencement

Hi Kelly,

Please see the attached preliminary NPCA comments for the Townline Road Servicing Class Environmental Assessment, Notice of Study Commencement. If you have any questions, please let me know.

Kind regards,



Colleen Bain, MES Planning

Senior Watershed Planner, Environmental Planning & Policy

Niagara Peninsula Conservation Authority (NPCA)

250 Thorold Road West, 3rd Floor | Welland, ON L3C 3W2

905.788.3135 | extension 275
www.npca.ca

cbain@npca.ca

The information contained in this communication, including any attachment(s), may be confidential, is intended only for the use of the recipient(s) named above. If the reader of this message is not the intended recipient, you are hereby notified that any disclosure of this communication, or any of its contents, is prohibited. If you have received this communication in error, please notify the sender and permanently delete the original and any copy from your computer system. Thank-you. Niagara Peninsula Conservation Authority.

August 24, 2023

Via Email Only

Kelly M. Walsh, P. Eng.
Director, Infrastructure Services
Town of Fort Erie
1 Municipal Centre Drive,
Fort Erie, ON, L2A 2S6

NPCA File: PLEA202300901

To Kelly M. Walsh,

**Re: Niagara Peninsula Conservation Authority (NPCA) Comments
Townline Road Servicing Class Environmental Assessment
North and South of Townline Road, between Netherby Road and the QEW,
Town of Fort Erie
Notice of Study Commencement**

Proposal

NPCA has received the above noted Notice of Study Commencement, which notes that the Town of Fort Erie is completing a Municipal Class Environmental Assessment (Schedule 'B') study to evaluate and select preferred solutions to provide water, sanitary and stormwater services to the area north and south of Townline Road between Netherby Road and the QEW, in order to facilitate the future development of those lands. NPCA staff have reviewed the Notice and offer the following comments.

Ontario Regulation 155/06

NPCA regulates watercourses, flood plains (up to the 100 year flood level), Great Lakes shorelines, hazardous land, valleylands, and wetlands under *Ontario Regulation 155/06* of the *Conservation Authorities Act*. The *NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority, November 18, 2022* (NPCA Policies) provides direction for managing NPCA regulated features. The subject area contains the following NPCA regulated features and hazards:

- Black Creek and Beaver Creek, and their associated flood plain hazards;
- Provincially significant wetlands (PSWs), specifically the Black Creek Wetland Complex (north and south of Townline Road); and
- The subject area may also contain unevaluated wetlands (which could be regulated).

Please note that a NPCA Permit will be required prior to any construction within our regulated area.

Staff provide the following preliminary information regarding the regulated features and hazards within the study area:

- The floodplain study for these creeks was completed in 2008 in the Fort Erie Creeks – Watershed plan. Upon request, NPCA staff can provide HEC-RAS (hydraulic) modelling, SWMHYMO (hydrologic) modelling, and the associated report.
- ELC and wetland boundaries; contemporary mapping of watercourse flowline direction; and surface water quality monitoring stations can be accessed at the following link: <https://gis-npca-camaps.opendata.arcgis.com/>
 - o For surface water quality data, NPCA staff recommends contacting Joshua Diamond (Manager, Watershed Monitoring and Reporting) at jdiamond@npca.ca.
 - o For flow regime data, NPCA staff recommends contacting Steve Miller (Senior Manager, Infrastructure Engineering) at smiller@npca.ca.
- NPCA issued a permit (Permit Number 202101412) for restoration activity proposed within the wetland unit of Black Creek Wetland Complex (PSW) north of Townline Road within the subject area, to improve hydrological and ecological function of the PSW unit on this property. Restoration activity included but is not limited to increasing the hydroperiod of existing sloughs through the implementation of berms constructed of logs and mulch, removal of hazardous and diseased trees, invasive species management (buckthorn removal), enhancement of existing trails through the application of mulch and underplanting of native tree species to fill in gaps in the forest. Staff do not know whether this restoration work has occurred, and we would be happy to visit the site to confirm, as well as provide restoration guidance to the Town for this wetland based on our previous review. Staff note that within this wetland unit, Black Gum and Black Ash are known to occur, and unevaluated wetlands may or may not be present on this property due to hydrological modification.

Additional Advisory Information

- MNRF fisheries data indicates Black Creek and Beaver Creek as Type I Critical Fish Habitat within the study area. Information on Fisheries Database Sites can be requested from the MNRF office in Vineland (David Denyes Tel: (289) 241-6872 or david.denyas@ontario.ca).
- MNRF has identified in-water restricted timing windows for the Upper Niagara River and Tributaries as follows: March 1st to July 1st (no in-water works to occur between these dates).

- This area contains Species at Risk (SAR), and staff recommends contacting the Ministry of Conservation, Environment and Parks (MECP), Permissions and Compliance Team, Species at Risk Branch, at SAROntario@ontario.ca, to ensure that no damage to SAR or their habitat will result from the proposed work.
- Please see the list below of SAR documented within approximately 1 km of the Study Area. SAR data is disseminated by the MECP, and NPCA staff are not able to provide UTM coordinates for the occurrences of the species identified below. Please note that this list may not be inclusive.

<i>Fusconaia flava</i>	Wabash Pigtoe
<i>Cypripedium candidum</i>	Small White Lady's-slipper
<i>Pieris virginiensis</i>	West Virginia White
<i>Hylocichla mustelina</i>	Wood Thrush
<i>Hirundo rustica</i>	Barn Swallow
<i>Moxostoma valenciennesi</i>	Greater Redhorse
<i>Crataegus coccinioides</i>	Kansas Hawthorn
<i>Carex lupuliformis</i>	False Hop Sedge
<i>Esox americanus</i>	Grass Pickerel
<i>Peltandra virginica</i>	Green Arrow Arum
<i>Lepomis peltastes</i> pop. 2	Northern Sunfish (Great Lakes - Upper St. Lawrence populations)
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker
<i>Asio flammeus</i>	Short-eared Owl
<i>Chelydra serpentina</i>	Snapping Turtle
<i>Hylocichla mustelina</i>	Wood Thrush
<i>Icteria virens</i>	Yellow-breasted Chat

- Further information on SAR is available at the Natural Heritage Information Centre (NHIC): <https://www.ontario.ca/page/get-natural-heritage-information>.
- The following reports may provide additional background information on the general study area:
 - o *Black Creek Wetland Complex* (2004), which can be requested from the MNRF office in Vineland (David Denyes Tel: (289) 241-6872 or david.denyas@ontario.ca).
 - o NPCA's (2022) *Water Quality Monitoring Program: Summary Report of The Year 2021*:
https://npca.ca/images/uploads/common/Water_Quality_Monitoring_Program_Summary_Report_of_the_Year_2021.pdf
 - o NPCA's (2023) *Watershed Report Card*:
https://npca.ca/images/uploads/common/WRC_NPCA_2023_CO.pdf
 - o NPCA's *Natural Areas Inventory 2006-2009 Volume 1*:
https://npca.ca/images/uploads/board_files/NAI-Vol-1.pdf

- o NPCA's *Natural Areas Inventory 2006-2009 Volume 2*:
<https://npca.ca/images/uploads/common/NAI-Vol-2.pdf>

Conclusion

NPCA staff hopes this information is helpful. If you have any questions or would like to discuss further, please contact the undersigned.

Sincerely,



Colleen Bain, MES Planning
Senior Watershed Planner, Environmental Planning and Policy

cc: David Deluce, NPCA (email only)
Amy Parks, NPCA (email only)
Theresa Bukovics, NPCA (email only)
Carly Mason, NPCA (email only)

Jamie Witherspoon

From: Melissa Saccone [REDACTED]
Sent: Friday, May 2, 2025 11:21 AM
To: Jamie Witherspoon
Subject: Townline Road Servicing

Follow Up Flag: Follow up
Flag Status: Flagged

You don't often get email from [REDACTED]

Hi Jamie,

I'm reaching out to share my concerns about the proposed sewer project and the impact it's having on our community. It feels unfair—and frankly outrageous—that we're being asked to shoulder part of the cost for a service none of us requested or want. All eight homeowners in our stretch have made it clear we neither support this plan nor believe we should pay for it.

At the last meeting, someone suggested extending the line only as far as Beam Enterprises and then turning it across the street. That approach would serve the intended properties without disrupting our homes—and spare us the expense. Why can't the project proceed in that direction instead?

Many of us here are retired—six of the eight homeowners, in fact—and the cost of living is already a daily struggle. New homeowners were assured that sewer service wouldn't arrive for at least 25 years; they invested in septic systems only to be told last year that the timeline had changed. Now they face paying twice—first for septic installation, then again to remove it for the new sewer connection. And that's before factoring in water bills that could triple and likely higher property taxes.

Finally, the meeting itself felt like a charade. No elected officials were present, and we later learned they hadn't even been notified. Is that legal procedure? It certainly doesn't feel transparent or accountable.

This entire process has been handled poorly, and it's placing an undue burden on those of us who live here. I urge you to revisit the route, respect our unanimous stance, and find a solution that doesn't penalize homeowners who never asked for this change.

Sincerely,

Melissa Saccone

Jamie Witherspoon

From: Greg Hunter [REDACTED]
Sent: May 5, 2025 9:07 PM
To: jfrost; Jamie Witherspoon
Subject: Townline Rd. Sanitary Servicing - New 200 mm Forcemain from New Sewage Pumping Station to Lagoon

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Mr. Frost & Mr. Witherspoon,
Please see the attached file for a question I have regarding the cost of Townline Rd. Sanitary Servicing and a proposed new 200 mm Forcemain from a new SPS to the sewage lagoon.

Also, as an alternative and in an effort to reduce costs of construction, might it be possible to build a new Sewage Pumping Station yet use the existing 200 mm FM, which is currently privately owned, if the Niagara Region were to purchase the existing 200mm FM from Parkbridge based on it's current value, remaining life and condition? If this is possible, construction of a new 200 mm FM could be postponed until the existing 200 mm FM needs to be replaced.

Please advise,
Thank You,
Greg Hunter
[REDACTED]

Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.6 million (+/- 25%)

Advantages:

- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

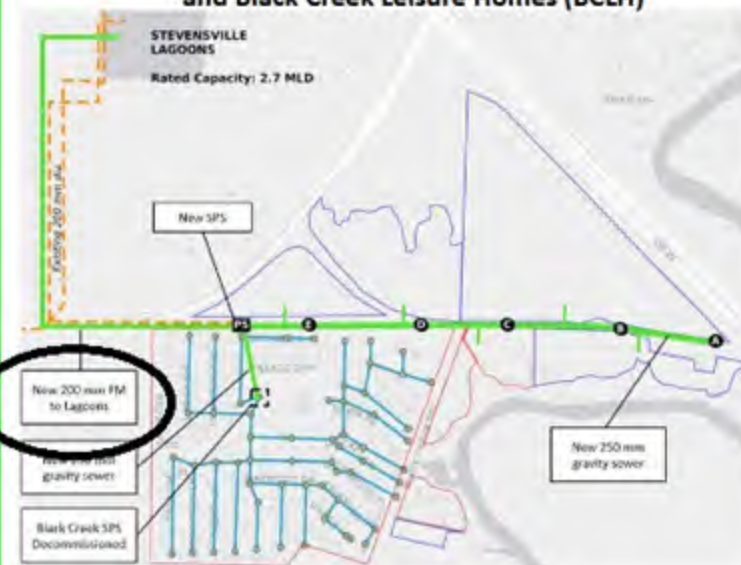
- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

A new 200 mm F/M to Lagoon was not shown in Alternative A during PIC #1 on Nov. 2, 2023, with an estimated cost of \$5.6 million,

yet Alternative A shown during PIC #2 on April 22, 2025 includes a New 200mm F/M to Lagoon, with an estimated cost of \$5.5 million.

How can the project require the construction of an additional Forcemain, probably at least a mile in length, yet cost less?

Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.5 million (+/- 25%)

Advantages:

- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

PREFERRED ALTERNATIVE

Tiziana Venditto

From: Greg Hunter [REDACTED]
Sent: Sunday, May 18, 2025 5:44 PM
To: Jamie Witherspoon
Cc: jfrost; Tiziana Venditto
Subject: Re: Townline Rd. Sanitary Servicing - New 200 mm Forcemain from New Sewage Pumping Station to Lagoon
Attachments: SD_Lagoon_and_Townline_Rd.pdf

You don't often get email from [REDACTED]

Thank You for your comprehensive explanation Mr. Witherspoon. Please see the attached file. I've been following this Townline Rd. servicing issue for many years and have never seen an estimate of the average daily amount of sewage that it is projected to generate. If you have that number would you please email it to me. As an alternative, I "backed into" average numbers using the Peak Flow numbers shown on the Forecasted Wastewater Production graphic from PIC #1 & #2 and used a Peaking Factor that I calculated from actual 2021 sewage flow data from the current Black Creek Mobile Homes sewage system. You may want to take a second look and validate the Peak Flow from Commercial parcel C3-551 on the graphic, because as it is this would consume 13.6% of the sewage lagoon capacity (the number may be correct, I don't pretend to know much about this stuff but it seems high). I added numbers for all of the Draft Approved and Proposed developments that I know of and I estimate that the sewage lagoons will be at 103% capacity after all current developments are completed. Please provide your comments and point out anywhere where you see that I've made an error.

Regards,
Greg Hunter

From: "Jamie Witherspoon" <jamie.witherspoon@wtinfrastructure.ca>
To: "Greg Hunter" [REDACTED] "jfrost" [REDACTED]
Cc: "Tiziana Venditto" <Tiziana.venditto@wtinfrastructure.ca>
Sent: Wednesday, May 14, 2025 10:43:49 AM
Subject: RE: Townline Rd. Sanitary Servicing - New 200 mm Forcemain from New Sewage Pumping Station to Lagoon

Mr. Hunter,

Thank you for your input and detailed review. I'm always glad to get comments like yours as it shows community engagement into the details, which ultimately is what matters. With respect to your comment, there was an inaccuracy in the 2023 slides as it was always our intent to replace the forcemain with a new forcemain and the costs that we have included throughout the project have included that cost. It just wasn't shown correctly in our graphic for PIC No. 1.

In general terms, unless we have solid information regarding the positive condition of the forcemain, we take a conservative approach to replace the infrastructure rather than attempt to rehabilitate it at this level of design detail as part of the Class EA process. In my 30 years of experience, the vast majority of times that we proposed to reuse or rehabilitate infrastructure at this stage of design, it resulted in more design challenges and cost than if we'd just started fresh. One of the key reasons why it was excluded from reuse at this time is that there has been a previous break in the forcemain which is potentially indicative of the infrastructure reaching the end of its' useful life or issues with the original installation. With the additional flows and connections, the criticality of this infrastructure will increase, so we will want to make sure that it is reliable. That being said, we will add a section in the report to discuss the options for that pipe. I would anticipate that the options will be:

1. Replace the existing forcemain with a new forcemain and abandon the existing one in place.
2. Provide a twin forcemain and use the existing forcemain as a back-up.

3. Rehabilitate the existing forcemain by structural relining – This is a potential issue because the internal structural lining reduces the inside diameter and capacity of the pipe.
4. Using the existing forcemain as a conduit for the trenchless installation of a new forcemain either through horizontal directional drilling or pipe bursting.

With respect to your comment regarding reusing the forcemain until the end of its' useful life and then replacing it, there is a fair amount of risk associated with that option in the event of a catastrophic failure and spill as well as the associated trucking that would be required. Additionally, since the road will likely be reconstructed as part of this development, our general approach is to complete a single capital project to avoid having to dig up the area after 5 or 10 years.

For the purposes of the Class EA, we want to look at a reasonable worst-case scenario for costing in terms of scope and then there will be the opportunity during detailed design to optimize the design further. One of the things we have to be careful about in the Class EA process is to be specific enough to allow for clarity to the public and stakeholders of the project scope, but generic enough to minimize the risk of handcuffing future design optimization opportunities like the ones you've indicated. Our goal is to provide the assessment of the technical aspects and screening of environmental issues to identify the preferred approach from an environmental (natural, social, economic) perspective for public review and scrutiny for the servicing of the study area with sanitary, storm and water. Ultimately, the Class EA provides the operating and regulatory guiderails of sustainable infrastructure development, particularly for a Schedule B Class EA such as this one, it isn't intended to get too deep into the details of design beyond development of reasonable cost estimates to address the affordability of a project to the individual ratepayers, development community and the Town.

I trust that addresses your questions, but don't hesitate to reach out if you have any other questions or concerns. Your feedback will be integrated both into the public comments and the final project file.

Thanks again for your interest in the project and your review of our documents/materials to date.

JW



Jamie Witherspoon, P.Eng., LEED AP, ENV SP

President & CEO

Tel: 1.833.WTINFRA (984.6372) ext. 101

Cell: 519.400.6701

WT Infrastructure Solutions Inc.

jamie.witherspoon@wtinfrastructure.ca

From: Greg Hunter [REDACTED]

Sent: Monday, May 5, 2025 9:07 PM

To: jfrost <jfrost@forterie.ca>; Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>

Subject: Townline Rd. Sanitary Servicing - New 200 mm Forcemain from New Sewage Pumping Station to Lagoon

Hello Mr. Frost & Mr. Witherspoon,

Please see the attached file for a question I have regarding the cost of Townline Rd. Sanitary Servicing and a proposed new 200 mm Forcemain from a new SPS to the sewage lagoon.

Also, as an alternative and in an effort to reduce costs of construction, might it be possible to build a new Sewage Pumping Station yet use the existing 200 mm FM, which is currently privately

owned, if the Niagara Region were to purchase the existing 200mm FM from Parkbridge based on it's current value, remaining life and condition? If this is possible, construction of a new 200 mm FM could be postponed until the existing 200 mm FM needs to be replaced.

Please advise,
Thank You,
Greg Hunter



Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.6 million (+/- 25%)

Advantages:

- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

A new 200 mm F/M to Lagoon was not shown in Alternative A during PIC #1 on Nov. 2, 2023, with an estimated cost of \$5.6 million,

yet Alternative A shown during PIC #2 on April 22, 2025 includes a New 200mm F/M to Lagoon, with an estimated cost of \$5.5 million.

How can the project require the construction of an additional Forcemain, probably at least a mile in length, yet cost less?

Alternative A: New Sanitary Sewer Servicing Future Development and Black Creek Leisure Homes (BCLH)



Capital Cost: \$5.5 million (+/- 25%)

Advantages:

- Services entire study area.
- Efficient infrastructure development to maximize number of connections to a single Sanitary Pumping Station (SPS)
- Eliminates private pumping station that needs to be maintained by the Black Creek Leisure Homes (BCLH) Property Management.
- Eliminates major capital mechanical asset renewal responsibilities for BCLH.
- Infrastructure Cost Sharing: This alternative would allow to share sanitary sewer and SPS costs with BCLH.

Disadvantages:

- Additional cost to connect BCLH and decommission existing system.
- Deeper Pumping Station: This Alternative would require the construction of a deeper wet-well to accommodate higher flow. This would increase excavation costs and construction risk.
- Working with existing and active infrastructure increases risk and potential for unknown conditions during construction.

PREFERRED ALTERNATIVE

Jamie Witherspoon

From: Greg Hunter [REDACTED]
Sent: May 6, 2025 3:35 PM
To: jfrost; Jamie Witherspoon
Subject: Townline Rd. Servicing Study, PIC #2, Slide 3 of 8, Capacity
Attachments: Townline_Rd_PIC2_Capacity.jpg; Sewage_Flows_through_2024.jpg

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Mr. Frost & Mr. Witherspoon,
Please see the attached files. I want to bring to your attention (2) inaccuracies I see on slide (3 of 8) from PIC #2 regarding the capacity and current utilization of the Stevensville-Douglastown sewage lagoon.

Slide 3 shows the capacity of the lagoon as 2.7 MLD, which is not correct. The capacity of the sewage lagoons according to the Ontario Ministry of Environment certificate 3-1284-80-827 is 2,289 m³/d or 2.289MLD. I suspect the 2.7 MLD number came from the Niagara Regions 2016 WWMP which also shows the incorrect value.

Slide 3 shows that "The Stevensville lagoons are currently operating at 70% of their rated capacity." As of 2024, this is no longer true. In fact, between 2019 and 2024 there has been a 15% decline in the average amount of sewage flowing into the lagoons. It seems too good to be true, but the data came from the Niagara Region in January 2025 and I assume it's accurate.

Regards,
Greg Hunter
[REDACTED]

Tiziana Venditto

From: Sarah Rozon-Cusack [REDACTED]
Sent: Monday, June 16, 2025 4:31 PM
To: Jamie Witherspoon
Cc: [REDACTED] Tiziana Venditto
Subject: Re: Townline Road Stormwater and Sanitary Servicing

You don't often get email from [REDACTED]

Mr. Witherspoon,

Thank you for the response. We were concerned our comments may not have been received and want to ensure they are included in the study.

We will wait to hear from you once your report is complete.

Kind Regards,
Sarah Rozon-Cusack

From: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Sent: Monday, June 16, 2025 4:13 PM
To: Sarah Rozon-Cusack [REDACTED]
Cc: jfrost@forterie.ca <jfrost@forterie.ca>; Tiziana Venditto <Tiziana.venditto@wtinfrastructure.ca>
Subject: Re: Townline Road Stormwater and Sanitary Servicing

Ms. Rozon-Cusack,
We apologize for any misunderstanding. We have compiled all the the comments and are finalizing the report for Town review and comment prior to publication. There will be a 30 day review period once the final report is published. All stakeholders that have signed in or provided comments will be notified when this is completed and published.
Regards,
JW

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From: Sarah Rozon-Cusack <[REDACTED]>
Sent: Monday, June 16, 2025 4:05:23 PM
To: Jamie Witherspoon <jamie.witherspoon@wtinfrastructure.ca>
Cc: jfrost@forterie.ca <jfrost@forterie.ca>
Subject: Re: Townline Road Stormwater and Sanitary Servicing

You don't often get email from [REDACTED]

Good afternoon, Mr. Witherspoon and Mr. Frost,

I am requesting acknowledgment of my previous emails as I have not heard from either of you.

I have also yet to receive any updates on this project. Can you please advise if there has been any progression on this project since the town information meeting I attended on April 22, 2025.

Regards,
Sarah Rozon-Cusack

From: Sarah Rozon-Cusack [REDACTED]
Sent: Tuesday, May 20, 2025 6:25 PM
To: jamie.witherspoon@wtinfrastructure.ca <jamie.witherspoon@wtinfrastructure.ca>
Cc: jfrost@forterie.ca <jfrost@forterie.ca>
Subject: Townline Road Stormwater and Sanitary Servicing

Hello Mr. Witherspoon and Mr. Frost,

Further to my previous email, please find attached our letter of concern pertaining to the Townline Road stormwater and sanitary servicing project.

As you had mentioned at the town information meeting, I would be provided updates through the email I provided to you on your attendance sheet. I have not yet received any correspondence. Can you please ensure I am included in future for any correspondence and updates on this project.

Regards,
Sarah Rozon-Cusack

From: Sarah Rozon-Cusack [REDACTED]
Sent: Tuesday, May 6, 2025 10:11 PM
To: jamie.witherspoon@wtinfrastructure.ca <jamie.witherspoon@wtinfrastructure.ca>
Cc: jfrost@forterie.ca <jfrost@forterie.ca>
Subject: Townline Road Stormwater and Sanitary Servicing

Good evening, Mr. Witherspoon and Mr. Frost,

We met during the Public Information Center No. 2 pertaining to the assessment of the Townline Road stormwater and sanitary servicing upgrades held on April 22nd. I reside at 2891 Townline Road. I am writing to inform you that I am currently in the process of completing my response to the Town regarding this assessment, and plan to submit it to you within the coming days.

Regards,
Sarah Rozon-Cusack

Stevensville-Douglastown (SD) Sewage Lagoon Utilization and Townline Road Servicing Study

SD Sewage Lagoon Utilization in 2024 based on actual flow data

Item	Area	Peak Flow (m ³ /day)	Peaking Factor	Average Flow (m ³ /day)	% of Sewage Lagoon Capacity (2,289 m3/day)
1	Current Stevensville, Douglastown & Black Creek	6,201 Jan. 26, 2024	4.4	1,397	61.0%

Townline Road Proposed Commercial Development

Item	Area	Peak Flow (m³/day)	Peaking Factor	Average Flow (m³/day)	% of Sewage Lagoon Capacity (2,289 m3/day)
2	C3-551	1,871	6	312	13.6%
3	C3	695		116	5.1%
4	C4	367		61	2.7%
5	R1-544 and R1-545	94		16	0.7%
6	C3-H and C3-16H	76		13	0.6%
7	R1-547	18.7		3	0.1%
Peaking Factor is based on actual 2021 flow data from the Black Creek system..				Total =	22.7%

Draft Approved Residential Developments in Douglastown

Item	Area	Peak Flow (m ³ /day)	Peaking Factor	Average Flow (m ³ /day)	% of Sewage Lagoon Capacity (2,289 m3/day)
8	Spring Creek Estates 225 Units, 549 People	Estimated average sewage flow based on 320 litres per person per day per the Town of Fort Erie Subdivision Planning Guidelines.			9.0%
9	Black Creek Signature Phase 2 181 Units, 442 People				7.0%

Proposed Residential Development in Stevensville

Item	Area	Peak Flow (m ³ /day)	Peaking Factor	Average Flow (m ³ /day)	% of Sewage Lagoon Capacity (2,289 m3/day)
10	2649 Stevensville Rd. 96 Units, 235 People	Estimated average sewage flow based on 320 litres per person per day per the Town of Fort Erie Subdivision Planning Guidelines.			3.3%

Cumulative Total = 103.0%

The Niagara Region's policy is to start studying expanding capacity when an asset reaches 80% capacity. The expanded capacity must be finished before the asset reaches 90% capacity.

Sanitary Sewer capacity is assigned when an applicant applies for a building permit, and the Town of Fort Erie will deny permits if it does not have capacity.

When the Niagara Region recently decommissioned sewage lagoons in Niagara-on-the-lake, that project took 12 years to complete and cost \$52 million.

