Halton REGION

Schedule B Municipal Class Environmental Assessment

New Wastewater Forcemain from the Fulton Street Pumping Station to Derry Road / Santa Maria Boulevard in the Town of Milton

PROJECT FILE REPORT

CIMA+

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April 2018

Project No. T000482A

NOTICE OF STUDY COMPLETION

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY
New Wastewater Forcemain from Fulton Street Pumping Station to Derry Road and Santa Maria Boulevard in the Town of Milton
Our File: PR-S3027A

Study

Halton Region has completed a comprehensive review of the wastewater servicing strategy for central Milton, including an assessment of the benefits of decommissioning the Milton Wastewater Treatment Plant (WWTP). This review evaluated several alternative servicing strategies that considered environmental, economic, social, legislative and technical impacts. In October 2016, Halton Regional Council approved the preferred option to close the Milton WWTP and divert flow to the Mid-Halton WWTP located in Oakville. To facilitate this preferred option, a second wastewater forcemain (WWFM) from the Fulton Street Wastewater Pumping Station (WWPS) is required.

Halton Region has completed a Municipal Class Environmental Assessment (EA) Study to determine the preferred alignment of the proposed second WWFM from the Fulton WWPS to Derry Road/ Santa Maria Boulevard, in the Town of Milton. The Study has been conducted in compliance with 'Schedule B' of the Municipal Class Environmental Assessment document (October 2000, as amended 2007, 2011 and 2015), which is an approved process under the *Ontario Environmental Assessment Act*.

Process

A Project File Report has been prepared to document the planning, public consultation and decision making process undertaken for this Municipal Class EA Study. By this Notice, the Project File Report is being placed on the public record for a 30-day review period in accordance with the requirements of the Municipal Class EA. Subject to comments received as a result of this Notice and the receipt of necessary approvals, Halton Region intends to proceed with detailed design and construction of phase 1 as documented in the Project File Report and noted in the map. The Project File Report is available for review at the following locations:

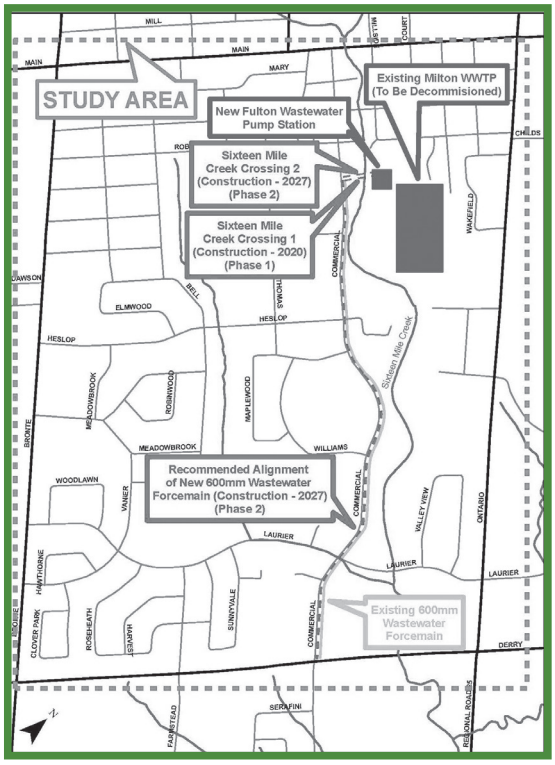
Regional Municipality of Halton
Clerk's Department
1151 Bronte Road
Oakville, ON, L6M 3L1
Tel: (905) 825-6000
Monday to Friday: 8:30 a.m. – 4:30 p.m.

Town of Milton Clerk's Department
150 Mary Street
Milton, ON L9T 6Z5
Tel: (905) 878-7252
Monday to Friday: 8:30 a.m. – 4:30 p.m.

Milton Public Library
Main Branch
1010 Main Street East
Milton ON L9T 6H7
Tel: (905) 875-2665
Monday to Thursday: 9:30 a.m. - 9 p.m.
Friday to Saturday: 9:30 a.m. - 5 p.m.
Sunday: 1 p.m. - 5 p.m.

An electronic copy of the Project File Report can be accessed at **halton.ca/EAprojects.**

The map shows the approximate limits of the Study Area and the preferred alternative solution.



We welcome your feedback. **Please provide comments to the Halton Region Project Manager by Monday, May 28, 2018.**

Sanjeev Oberoi, P.Eng., PMP
Project Manager
Infrastructure Planning & Policy
Halton Region
1151 Bronte Road, Oakville
ON L6M 3L1
Tel: (905) 825-6000, ext. 7921
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If concerns regarding this project cannot be resolved through discussions with the Region, a person or party may request that the Minister of the Environment and Climate Change order the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments. Requests for a Part II Order must be received by the Minister and Region in writing, at the addresses provided, by Monday, May 28, 2018 (within 30 days of this Notice).

Minister of the Environment and Climate Change
77 Wellesley Street West, Floor 11
Toronto, ON M7A 2T5

This notice first issued on Thursday, April 26, 2018.

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Executive Summary

ES-1.1 Introduction and Background

The Milton Wastewater Treatment Plant (WWTP) is an 18.5 mega-litre per day (ML/d) capacity wastewater treatment plant owned and operated by the Regional Municipality of Halton and located at 161 Fulton Street in Milton, Ontario. The Milton servicing strategy detailed in the 2011 Sustainable Halton Water & Wastewater Master Plan was to maintain the plant at its existing size and to increase the capacity of the diversion infrastructure to allow increased flows from growth to be diverted south to the Mid-Halton WWTP in the Town of Oakville. This included building a new wastewater pump station (WWPS, referred to as the Fulton WWPS) at the existing WWTP site, and the construction of a 600 mm wastewater forcemain along Commercial Street to connect the Fulton WWPS to the Halton Urban Structure Plan (HUSP) manhole, from which flow is conveyed to the Mid-Halton WWTP. Both these projects were funded through development charges. Construction of the Fulton WWPS was started in 2013 and is scheduled to be completed in 2019. The 600 mm forcemain was constructed in 2014 along Commercial Street, from the HUSP manhole at Derry Road to just north of Sydney Street. The 600 mm forcemain was intended to be connected to the Fulton WWPS via a crossing under Sixteen Mile Creek; however, due to construction complications the crossing was not completed and the forcemain was temporarily capped.

A servicing review was undertaken (CIMA, 2015) to assess the benefits of decommissioning the Milton WWTP as the facility is in need of significant reinvestment, which was identified through a capital needs assessment. The review identified several alternative servicing strategies which considered environmental, economic, social, legislative and technical impacts. The preferred option included decommissioning of the Milton facility and diverting all flow to the Mid-Halton WWTP. To implement this revised strategy, a second forcemain and associated Sixteen Mile Creek crossing were deemed necessary to provide sufficient flow diversion capacity. Also, minor modifications were made to the design of the new Fulton Street wastewater pump station (WWPS) to support implementation of the revised strategy. In addition to being required for capacity, this second forcemain would also provide redundancy and reliability in accordance with Halton Region's

Linear Design Guideline Standards. This project also presented an opportunity to connect the existing capped-in-place 600 mm forcemain to the Fulton WWPS, and as such a second Sixteen Mile Creek crossing was added to the scope of work. These works were included in Halton Region's non-development capital budget, and a Schedule B Municipal Class Environment Assessment Study (MCEA) was initiated to select the preferred routing for the second forcemain and two Creek crossings.

ES-1.2 Scope of Current Class Environmental Assessment Study

The purpose of this Class Environmental Assessment (EA) Study is to determine: 1) the preferred alignment for the second forcemain, and 2) the preferred location of a Sixteen Mile Creek crossing to connect the existing 600 mm forcemain to the Fulton WWPS.

This Study was carried out in accordance with Schedule 'B' of the Municipal Class Environmental Assessment document (October 2000, amended 2007, 2011, and 2015). Schedule B projects are defined as having the potential for some adverse environmental effects and the proponent is required to undertake a screening process involving mandatory contact with directly affected public and relevant review agencies to ensure all are aware of the project and have the opportunity to provide input and feedback.

ES-1.3 Problem and Opportunity Statement

The problem/opportunity statement for the Municipal Class EA Study has been defined as follows:

As a result of the planned decommissioning of the Milton WWTP, all wastewater flows generated in the community of Milton will be conveyed to the Mid-Halton collection system via the Fulton WWPS on the existing Milton WWTP site. To facilitate planned decommissioning of the Milton WWTP, a second forcemain from the Fulton WWPS is required to provide:

- Sufficient capacity to accommodate the future flows generated by approved growth within the Town of Milton, as identified in the 2011 Sustainable Halton Water and Wastewater Master Plan, and
- Compliance with Regional Linear Design Guideline Standards for reliability and redundancy by twinning the existing 600 mm forcemain.

Additionally, construction of a crossing under Sixteen Mile Creek from the Fulton WWPS to Commercial Street (just north of Sydney Street) is required to connect the existing 600 mm forcemain to the Fulton WWPS.

ES-1.4 Study Area

The Study Area is located in the Town of Milton, and is generally bounded by Ontario Street South to the east, the existing Milton WWTP site to the north, Derry Road at the HUSP manhole to the south, and Bronte Street South to the west (as shown in Figure ES-1).

Detailed reviews of the Study area were carried out to provide information with respect to the natural environment, archaeological, cultural heritage and social characteristics that could be used to support the evaluation of alternative servicing strategies. The documents and information that were prepared include the following:

1. Natural Environmental Assessment prepared by LGL Limited (Appendix B);
2. Stage 1 Archaeological Assessment prepared by Archeoworks Inc. (Appendix C)
3. Cultural Heritage Landscapes & Built Heritage Resources assessment prepared by Unterman McPhail Associates (Appendix D).

The information from these reports was used to populate the detailed evaluation matrix (Section 6.4.2, Table 4: Detailed Evaluation Matrix) and determine a preferred alternative solution.

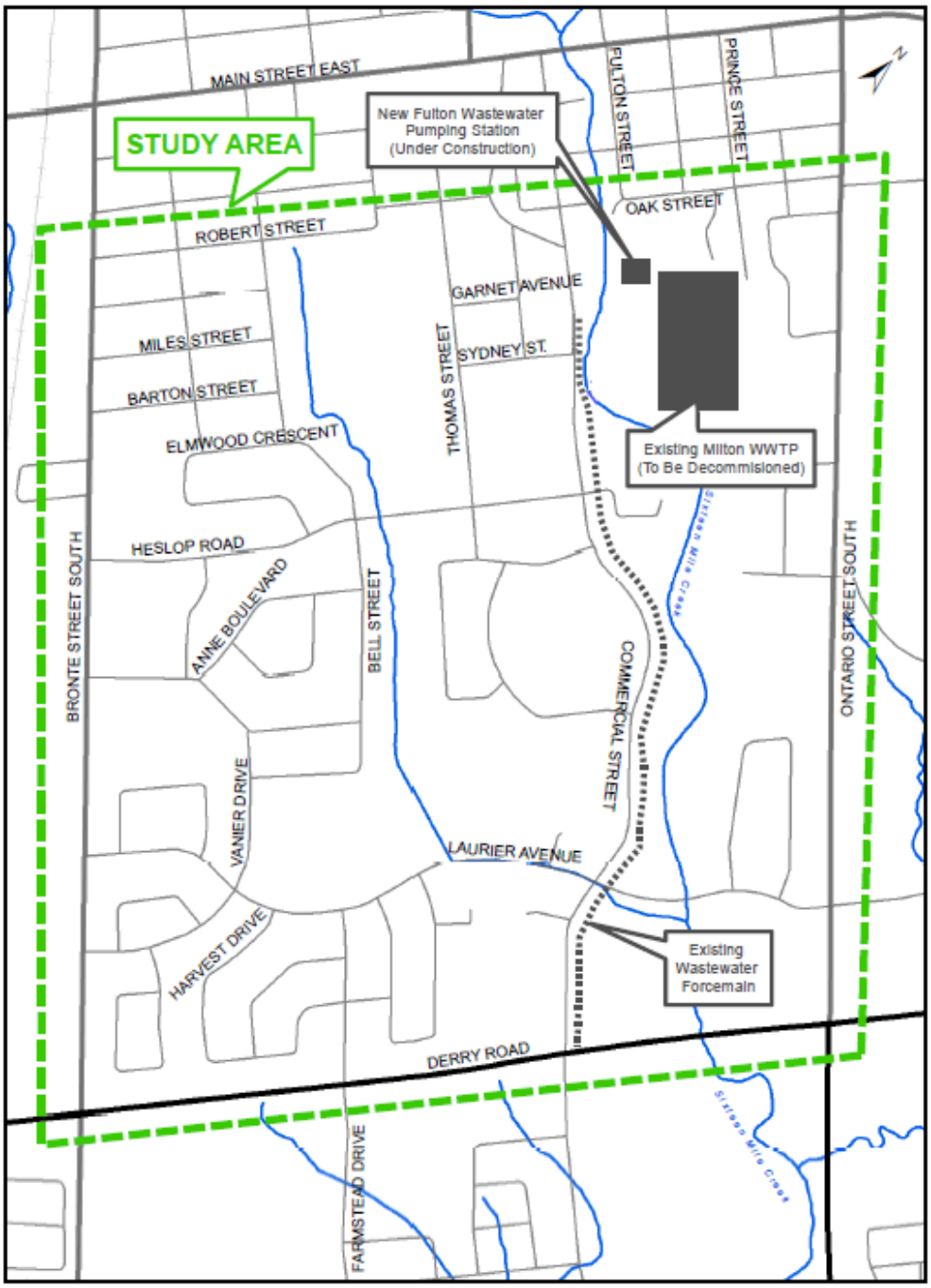

Figure ES-1 Study Area Plan

ES-1.5 Preliminary Design Criteria

The 2011 Sustainable Halton Water and Wastewater Master Plan identified a long-term peak wet weather flow for the Milton WWTP service area of 110 MLD.

Based on the above, and the existing 600 mm forcemain designed to accommodate 60 MLD, the second forcemain will be required to convey a peak wet weather flow of 50 MLD. This value is equal to the peak wet weather flow capacity of the Milton WWTP.

At a maximum design velocity of 2.5 m/s (per Halton Region Design Standards), the second forcemain is required to have a diameter of 600 mm, matching the diameter of the existing forcemain along Commercial Street.

ES-1.6 Forcemain Route Alternatives

Five potential alternative solutions, including the "do nothing" alternative, were identified as possible routes for the second 600 mm forcemain, as described in Section 5. The long list of alternatives includes:

- Alternative 1: Do Nothing
- Alternative 2: Ontario Street
- Alternative 3: Sixteen Mile Creek
- Alternative 4: Commercial Street
- Alternative 5: Residential

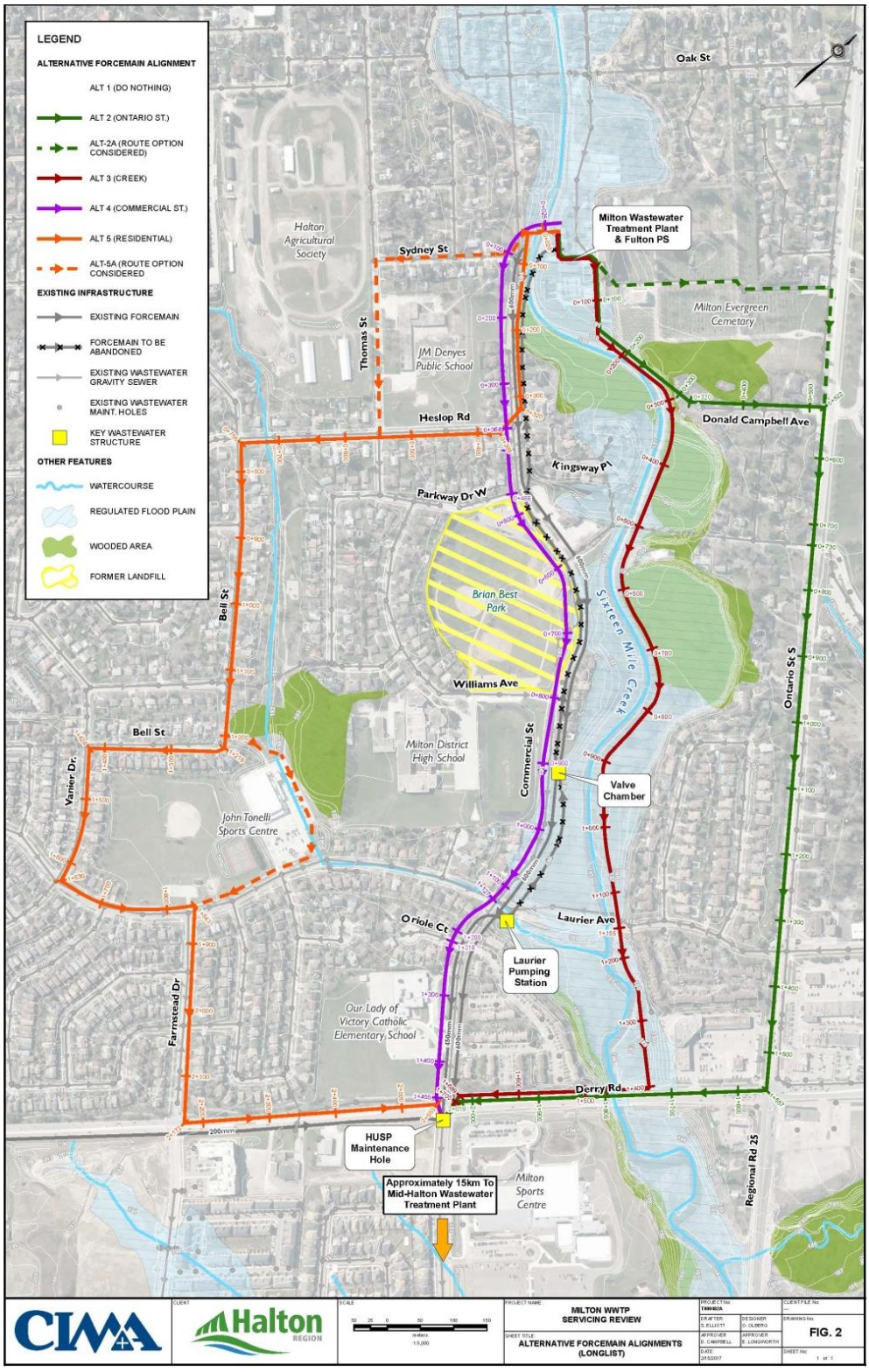

Figure ES-2 Alternative Forcemain Alignments

All alternatives listed above also considered a crossing of the Sixteen Mile Creek (adjacent to the Milton WWTP site) to connect the existing 600 mm forcemain (constructed in 2014) to the Fulton WWPS.

ES-1.7 Analysis and Evaluation of Alternatives

To identify a short list of forcemain alignment alternatives to be carried forward for detailed evaluation, each of the five alternatives on the long list was subjected to the following preliminary screening criteria which were developed by the project team to reflect major goals and objectives of the Municipal Class EA Study:

1. Alternative meets the Region's standards for reliability and redundancy. The Region requires that forcemains have a level of redundancy to allow for infrastructure to be taken out of service for maintenance or repairs.
2. Alternative is technically feasible. The alternative must be able to be constructed using reliable construction methods.
3. Alternative is protective of the natural environment. Alternative must meet the intent of the Conservation Halton Regulation (O. Reg. 162/06), which restricts the placement and construction of public infrastructure within hazardous lands and valleylands subject to certain criteria and provisions.

Based on the results of the screening, the following three alternatives were carried forward for detailed evaluation as follows:

+ Alternative A: Ontario Street
+ Alternative B: Commercial Street
+ Alternative C: Residential

The three short-listed forcemain alternatives were then subjected to a detailed comparative evaluation using an evaluation matrix that enabled a systematic and rational comparison of the alternatives focusing on five main impact categories; technical, environmental, social, legal/jurisdictional and economic.

ES-1.8 Preferred Alternative

The preferred alternative, as illustrated in Figure ES-3, is to connect the existing 600 mm wastewater forcemain from its current location on Commercial Street to the

Fulton Wastewater Pumping Station via a crossing under Sixteen Mile Creek as part of Phase 1, which is anticipated to proceed in 2020; and construction of a second 600 mm wastewater forcemain (and associated Sixteen Mile Creek Crossing) from the Fulton Wastewater Pumping Station along the Commercial Street municipal right-of-way to the intersection of Derry Road and Santa Maria Boulevard as part of Phase 2, in the 2027 timeframe. The MCEA Study determined that the existing 600 mm wastewater forcemain has sufficient capacity to address flows from both intensification growth in old Milton and diversion from the Milton Wastewater Treatment Plant until Phase 2 is implemented. As such, decommissioning of the Milton Wastewater Treatment Plant will proceed as planned. The timing for the design and construction of Phase 2 of the project, and the size of the second wastewater forcemain, will be reviewed and verified as part of the next update to the Water and Wastewater Master Plan.

Figure ES-3 Preferred Forcemain Alignment

ES-1.9 Public Consultation Process

Consultation with review agencies, stakeholders and the public is a necessary and important component of the Municipal Class EA process. Further documentation related to the consultation activities undertaken during this Municipal Class EA Study is included in Appendix A.

Halton Region has met Municipal Class EA consultation requirements with the following components for this project:

- Notice of Commencement and Public Information Centre (PIC)
- Direct Mailings to Stakeholders
- Project Website
- Public Information Centre
- Agency Consultation
- Indigenous Communities Consultation
- Notice of Completion

ES-1.10 Implementation

Halton Region has outlined the commitments and/or mitigation measures that will be undertaken during the implementation of the preferred alternative as well as approvals that will be required to implement the preferred alternative. Commitments and mitigation measures have been identified and documented for the design, construction and post-construction and operation phases of the project.

Additionally, agency permits and approvals required for implementation have been identified from the following agencies:

- Town of Milton
- Ministry of Natural Resources and Forestry (MNRF)
- Ministry of the Environment and Climate Change (MOECC)
- Conservation Halton
- Ministry of Tourism, Culture and Sport

+ Utilities

Upon completion of the 30-day review period for this Schedule B Municipal Class EA, Halton Region will proceed with detailed design and construction of Phase 1, as detailed within this Project File Report.

1. Introduction

1.1 Background

The Milton Wastewater Treatment Plant (WWTP) is an 18.5 mega-litre per day (ML/d) capacity wastewater treatment plant owned and operated by the Regional Municipality of Halton and located at 161 Fulton Street in Milton, Ontario. The Milton servicing strategy detailed in the 2011 Sustainable Halton Water & Wastewater Master Plan was to maintain the plant at its existing size and to increase the capacity of the diversion infrastructure to allow increased flows from growth to be diverted to the Mid-Halton WWTP. This included building a new wastewater pump station (WWPS, referred to as the Fulton WWPS) at the existing WWTP site, and the consruction of a 600 mm wastewater forcemain along Commercial Street to connect the Fulton WWPS to the Halton Urban Structure Plan (HUSP) manhole, from which flow is conveyed to the Mid-Halton WWTP. Both these projects were funded through development charges (ID5924 and ID5728, respectively). Construction of the Fulton WWPS was started in 2013 and is scheduled to be completed in 2019. The new 600 mm forcemain was constructed in 2014 along Commercial Street, from the HUSP manhole at Derry Road to just north of Sydney Street. The new 600 mm forcemain was intended to be connected to the Fulton WWPS via a crossing under Sixteen Mile Creek; however, due to construction complications the crossing was not completed and the forcemain was temporarily capped.

A servicing review was undertaken (CIMA, 2015) to assess the benefits of decommissioning the Milton WWTP as the facility is in need of significant reinvestment, which was identified through a capital needs assessment. The review identified several alternative servicing strategies which considered environmental, economic, social, legislative and technical impacts. The preferred option included decommissioning of the Milton facility and diverting all flow to the Mid-Halton WWTP. To implement this revised strategy, a second 600 mm forcemain and associated Sixteen Mile Creek crossing were deemed necessary to provide sufficient flow diversion capacity. In addition to being required for capacity, this second forcemain would also provide redundancy and reliability in accordance with Halton Region's Linear Design Guideline Standards. This project also presented an opportunity to connect the existing capped-in-place 600 mm forcemain to the Fulton

WWPS, and as such a second Sixteen Mile Creek crossing was added to the scope of work. These works were spilt into two non-development projects (ID7450 and ID7561, respectively), and a Schedule B Municipal Class Environment Assessment Study (MCEA) was initiated to select the preferred routing for the second forcemain and two Creek crossings.

1.2 Scope of Current Class Environmental Assessment Study

The purpose of this Class Environmental Assessment (EA) Study is to determine: 1) the preferred alignment for the second 600 mm forcemain, and 2) the preferred location of a Sixteen Mile Creek crossing to connect the existing 600 mm forcemain to the Fulton WWPS.

This Study was carried out in accordance with Schedule 'B' of the Municipal Class Environmental Assessment document (October 2000, amended 2007, 2011, and 2015). Schedule B projects are defined as having the potential for some adverse environmental effects and the proponent is required to undertake a screening process involving mandatory contact with directly affected public and relevant review agencies to ensure all are aware of the project and have the opportunity to provide input and feedback. The process for a Schedule B Municipal Class EA Study is shown in Figure 1.

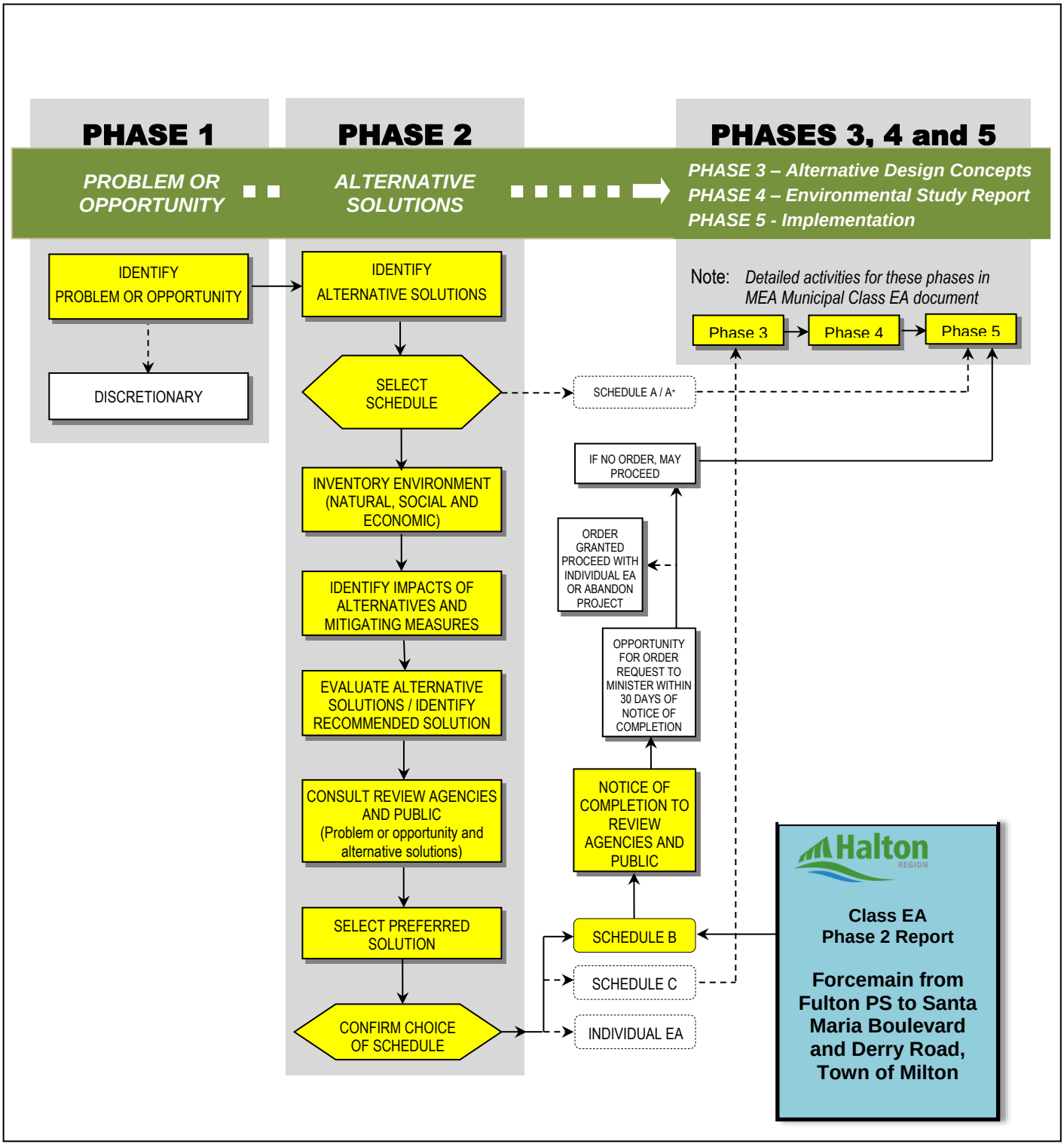

Figure 1 Municipal Class EA Flow Chart

1.3 Notice of Completion

At the conclusion of Phase 2 of the Municipal Class EA process for Schedule B projects, a Project File is prepared and a Notice of Completion is issued. The Project File report (PFR) for the New Wastewater Forcemain from Fulton Street Pumping Station to Derry Road and Santa Maria Boulevard in the Town of Milton (i.e. this report) documents the decision making process during the study. The Notice of Study Completion of this Municipal Class EA Study (issued on April 26, 2018) notifies members of the public and agencies that the PFR would be available for public review for thirty day period. The PFR was made available for public review at the following locations during normal business hours:

Clerk's Department
Regional Municipality of Halton
1151 Bronte Road
Oakville, ON L6M 3L1
Tel: (905) 825-6000
Monday–Friday: 8:30 a.m. – 4:30 p.m.

Clerk's Department
Town of Milton
150 Mary Street
Milton, ON L9T 6Z5
Tel: (905) 878-7252
Monday–Friday: 8:30 a.m. – 4:30 p.m.

Milton Public Library
1010 Main Street East
Milton, ON L9T 6H7
Tel: (905) 875-2665
Monday- Thursday:9:30 a.m. – 9:00 p.m
Friday: 9:30 a.m. – 5:00 p.m.
Saturday: 9:30 a.m. – 5:00 p.m.
Sunday: 1:00 p.m.– 5:00 p.m.

A copy of the Notice is included in Appendix A of this Project File.

1.4 Part II Order

The Municipal Class EA process includes an appeal provision to change the status of a project from being subject to the Municipal Class EA process to being subject to an Individual Environmental Assessment as per Part II of the Ontario EA Act. The

latter requires the submission of an EA document to the Minister of the Environment and Climate Change (MOECC) for government review and approval.

It is recommended that all stakeholders work together to determine the preferred means of addressing a problem or opportunity. If concerns regarding a project cannot be resolved in discussions with the proponent, then members of the public, interest groups, Indigenous communities, or technical review agencies may request the Minister of the Environment and Climate Change, by order, to require a proponent to comply with Part II of the EA Act before proceeding with a proposed undertaking which has been subject to Municipal Class EA requirements. The Minister of the Environment then decides whether to deny the request, refer the matter to mediation or require the proponent to comply with Part II of the EA Act.

Additional information regarding this appeal process may be obtained from the Halton Region website (http://www.halton.ca/EAprojects).

1.5 Report Structure

This report was prepared to meet the requirements of the Ontario Municipal Engineer's Association (MEA) Municipal Class EA Planning Process (October 2000, as amended in 2007, 2011 & 2015). This report combines all phases of the planning process under one cover and includes steps that are considered essential for meeting the requirements of Ontario's *Environmental Assessment Act, 1990* (herein referred to as the "EAA"). The report is divided into 9 subsections plus appendices and references, structured as follows:

- Section 1 provides background information for this project;
- Section 2 identifies the problem and opportunity statement;
- Section 3 describes the Study area of the project;
- Section 4 describes the design basis for the new forcemain;
- Section 5 summarizes the alternative forcemain alignments;
- Section 6 describes the evaluation of the forcemain alignments;
- Section 7 describes the public consultation process that was undertaken as part of the assessment process;
- Section 8 identifies the preferred solution for the new forcemain; and

- Section 9 summarizes the implementation plan including mitigation measures, commitments and approvals.

2. Problem/Opportunity Statement

Phase 1 of the Municipal Class EA planning process requires the proponent of an undertaking to first document factors leading to the conclusion that the improvement is needed, and develop a clear statement of the problem/opportunity to be investigated.

The problem/opportunity statement for the Municipal Class EA Study has been defined as follows:

As a result of the planned decommissioning of the Milton WWTP, all wastewater flows generated in the community of Milton will be conveyed to the Mid-Halton collection system via the new Fulton WWPS on the existing Milton WWTP site. To facilitate planned decommissioning of the Milton WWTP, a second forcemain from the Fulton WWPS is required to provide:

- Sufficient capacity to accommodate the future flows generated by approved growth within the Town of Milton, as identified in the 2011 Sustainable Halton Water and Wastewater Master Plan, and
- Compliance with Regional Linear Design Guideline Standards for reliability and redundancy by twinning the existing 600 mm forcemain.

Additionally, construction of a crossing under Sixteen Mile Creek from the Fulton WWPS to Commercial Street (just north of Sydney Street) is required to connect the existing 600 mm forcemain to the Fulton WWPS.

New forcemain alignment alternative solutions have been developed and evaluated on the basis of their ability to meet the Problem and Opportunity Statement, while minimizing impact on the natural and socio-economic environment in the Study area.

3. Study Area Overview

3.1 Study Area Location

The Town of Milton is one of the fastest growing municipalities in the Greater Golden Horseshoe, according to a 2011 Census, and is located within the Regional Municipality of Halton.

Figure 2 presents the Study Area for this Municipal Class EA. The Study Area is generally bounded by Ontario Street South to the east, the existing Milton WWTP site to the north, Derry Road at the HUSP manhole to the south, Bronte Street South to the west.

3.1.1 Land Uses

The lands between the outlet of the existing Milton WWTP and Derry Road lie within the historic urban centre of the Town of Milton. The dominant land uses within the Study area are urbanized residential with some recreational open space and commercial uses as well. The residential communities are connected to Regional water and wastewater systems.

The Study area encompasses existing built-up residential areas including three schools. Sixteen Mile Creek flows through residential communities to the east of all three schools. A sports centre is located to the northwest of Farmstead Drive. A large size property, belonging to the Halton Agricultural Society, is located to the west of the intersection of Sydney Street and Thomas Street. It is green field land with some commercial use for annual exhibitions and fairs. Also included in the Study area are small patches of wooded area. The site of Brian Best Park is a former landfill site that borders directly with Commercial Street.

Detailed reviews of the Study area were carried out to provide information with respect to the natural environment, archaeological, cultural heritage and social characteristics that could be used to support the evaluation of alternative servicing strategies. The documents and information that were prepared include the following:

1. Natural Environmental Assessment prepared by LGL Limited (Appendix B);
2. Stage 1 Archaeological Assessment prepared by Archeoworks Inc. (Appendix C)
3. Cultural Heritage Landscapes & Built Heritage Resources assessment prepared by Unterman McPhail Associates (Appendix D).

The information from these reports was used to populate the evaluation matrix in Section 5.

High-level information on these assessments is summarized in the following sections, but additional information can be found in the appendices noted above.

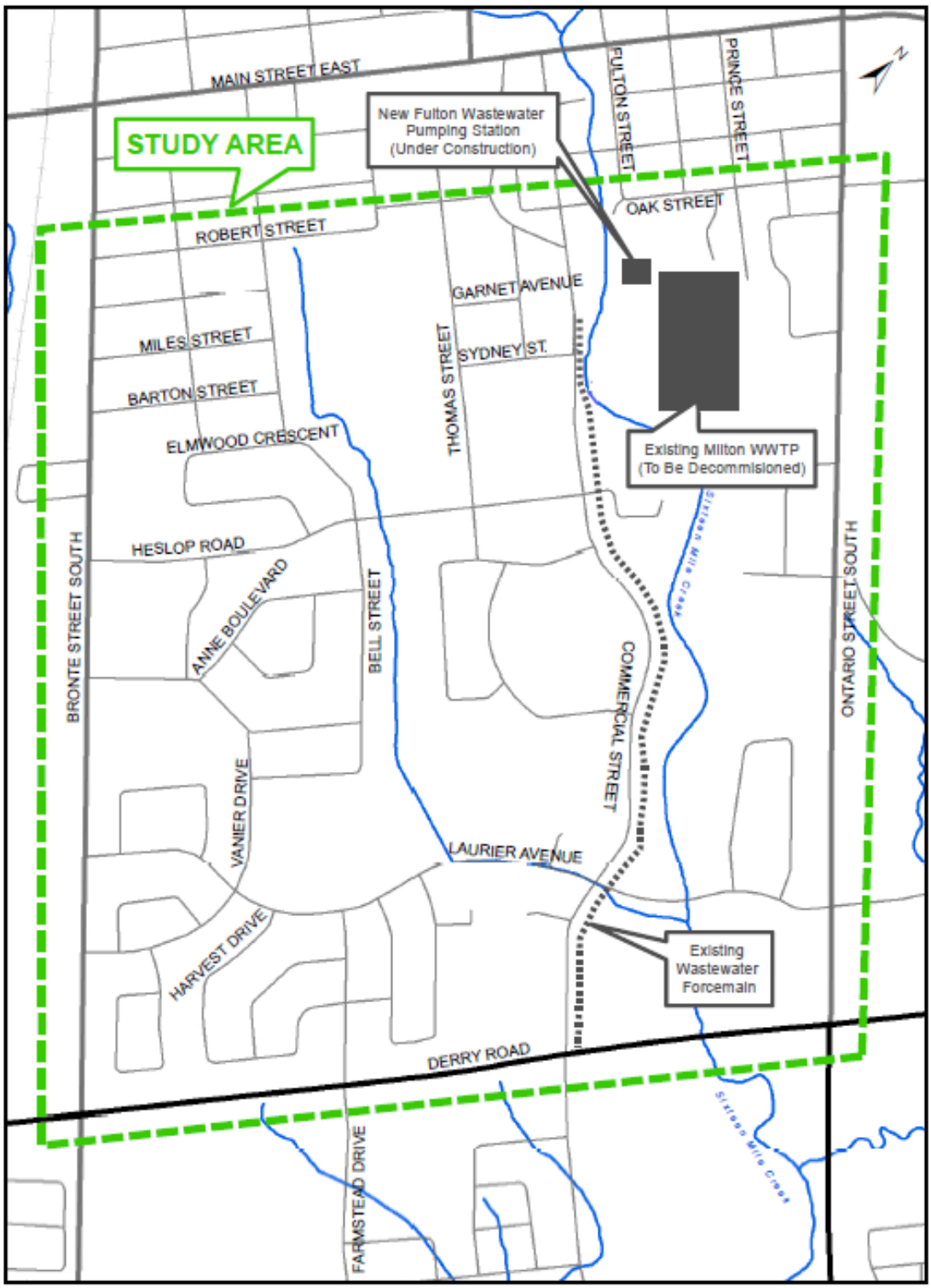

Figure 2 Study Area Plan

3.2 Natural Environment

3.2.1 Overview

As part of this Municipal Class EA Study, a natural environment investigation was undertaken by LGL Limited to document the existing conditions of the Study area and provide support to the Municipal Class EA Study from a natural environmental perspective. The primary study area defined for the purpose of the Natural Environment Investigation is bordered by Ontario Street South, Derry Road West, Bowes Street and the WWTP site. To define an area suitable for collection of available background information, a secondary study area was defined to include adjacent areas which extend to Main Street West (to the northwest), Centennial Forest Drive (to the northeast), an easement south of Derry Road West (to the southeast) and Bronte Street South (to the southwest). These areas are shown in Figure 6.

The investigation included identification and consideration of all natural heritage concerns within the Study area in association with the potential crossings of sensitive natural areas with wastewater infrastructure.

Documentation of existing conditions was based on a desktop assessment of aerial imagery and a review of background data from secondary sources to describe natural heritage conditions within the Study area. The review of existing background documentation and data layers, included the following resources:

- Site aerial imagery;
- Mapping of physiography and soils;
- MNRF Natural Heritage Information Centre (NHIC) database;
- Land Information Ontario (LIO) MNRF data layers;
- MNRF fisheries records;
- MNRF data request submission;
- Conservation Halton GIS Layers; and,
- Sixteen Mile Creek Impact Assessment Study – Milton Wastewater Treatment Plant Discharge, 2015.

Secondary source information was compiled and analyzed in order to develop a general description of the terrestrial and aquatic ecosystems, vegetation and wildlife within the project area. In addition, MNRF was consulted to obtain any additional information regarding the natural heritage system and potential species at risk in the project area (pers. comm. A. McAllister Aurora District MNRF, May 2016).

Existing conditions documented through review of available background information were confirmed during a field investigation on June 8, 2016. Efforts were made to confirm conditions in proximity to the routing of three alternative solutions under consideration for the EA.

The complete Natural Environment Report prepared by LGL Limited is included in Appendix B for further reference.

Natural areas within the Study area in the form of parklands, stream corridors, and open fields were screened for any designations within various local, regional and provincial policies, the results of which are summarized in the following sections.

3.2.2 Areas of Natural and Scientific Interest (ANSIs)

Areas of Natural and Scientific Interest (ANSI) are designated by the MNRF. Records contained within the MNRF LIO database did not indicate the presence of any Life Science or Earth Science ANSIs within, or in close proximity to the Study area.

3.2.3 Significant Wetlands

Wetland features were identified through available GIS data layers provided by MNRF through LIO as shown in Figure 3 and confirmed through MNRF consultation (A. McAllister Aurora District MNRF May 2016). Three types of wetland features are identified in MNRF data layers: provincially significant wetlands (PSWs), evaluated wetlands and unevaluated wetlands. The status of wetlands is determined through an evaluation according to the Ontario Wetland Evaluation System (OWES). PSWs are those for which an OWES evaluation has resulted in a score sufficient to qualify as a provincially significant feature. Unevaluated wetlands are wetland features that have not undergone an OWES evaluation; while, those presented as evaluated wetlands are features where an OWES evaluation has been completed but the score is insufficient to qualify as a provincially significant feature. Evaluated wetlands may also be considered locally significant wetlands.

No PSWs or evaluated wetlands are present within the Study area. However, an unevaluated wetland associated with a tributary of Sixteen Mile Creek (AU-0003_SIX) south of Derry Road and outside of the primary Study area is identified in the LIO data layer (Figure 3).

3.2.4 Significant Woodlands

LIO data layers indicate the presence of wooded areas within the Study area including the riparian areas of Sixteen Mile Creek and its tributaries (Figure 3). The woodland features associated with the creek are part of the northwest to southeast connection across the broader landscape. These forests are also identified within the mapping of natural areas included in local and regional Official Plans, and are further described below in Section 3.2.6. Generally speaking, the extent of woodland within the Study area is limited.

3.2.5 Environmentally Sensitive Areas (ESA)

Environmentally Sensitive Areas (ESAs) are identified in the Town of Milton's Official Plan (OP). No such areas, as identified in Schedule B (August 2008) of the City's OP, are located within the limits of the Study area.

3.2.6 Vegetation and Vegetation Communities

Data made available by Conservation Halton (CH) includes the Ecological Land Classification (ELC) of vegetation communities in natural areas (Figure 4). Within the primary Study area the following ELC communities are documented:

- FOD (deciduous forest);
- SWD (deciduous swamp); and,
- MAM (mineral marsh).

The secondary Study area includes the vegetation communities listed above as well as areas of cultural meadow (CUM), cultural woodland (CUW), and some small pockets of cultural plantation (CUP). Most of the ELC data provided by Conservation Halton corresponds with the riparian corridors of Sixteen Mile Creek and its tributary as they occur within the Study area.

3.2.7 Wildlife Habitat

The forested communities (Sugar Maple-Beech Deciduous Forest (FOD5-2), and Sugar Maple-Oak Deciduous Forest (FOD 5-3)) along Sixteen Mile Creek within the Study area represent the highest quality habitat available for wildlife. These forests include trees of various ages and condition (including dead standing trees), and also include species that are mast producing (i.e. Black Walnut, Oak, Beech). Several large diameter trees were noted as having cavities or sloughing bark. These elements may afford shelter, habitat, and food opportunities for a variety of wildlife, including the potential for species at risk bats such as Little Brown Myotis (*Myotis lucifugus*). Large diameter trees with sloughing bark or cavities have the potential to act as maternal roosting locations for this species. This forest area also provides habitat to the Red-eyed Vireo (*Vireo olivaceus*), which is noted as an interior species within the *Significant Wildlife Habitat Technical Guide* (SWHTG 2000). This forested habitat also meets criteria as Candidate Significant Wildlife Habitat as Eastern Wood Pewee (*Contopus virens*), a Special Concern species, was heard singing within this community during the 2016 field investigation (shown in Figure 5).

Remaining communities on site do not represent high-quality habitat, but do offer nesting opportunities for other more urban tolerant species. The bridge at Laurier Avenue was noted as having an active Barn Swallow (*Hirundo rustica*) nest, while the bridge at Derry Road had multiple active Barn Swallow and Cliff Swallow (*Petrochelidon pyrrhonota*) nests. Artificial Barn Swallow nest cups were also affixed to the underside of the bridge, but were not in use at the time of survey.

3.2.8 Surface Water Features

Information provided by Conservation Halton (CH) includes fisheries data (Figure 4), and the limits of headwaters, floodplains, valley features, and meander belts where available (Figure 6). Sixteen Mile Creek is the major watercourse in the Study area which currently receives treated effluent from the Milton WWTP. The secondary Study area includes tributaries of the creek, portions of which are buried below ground. Further details regarding the nature of these watercourses are provided in the subsections below, including a summary of the fisheries data obtained from CH and MNRF.

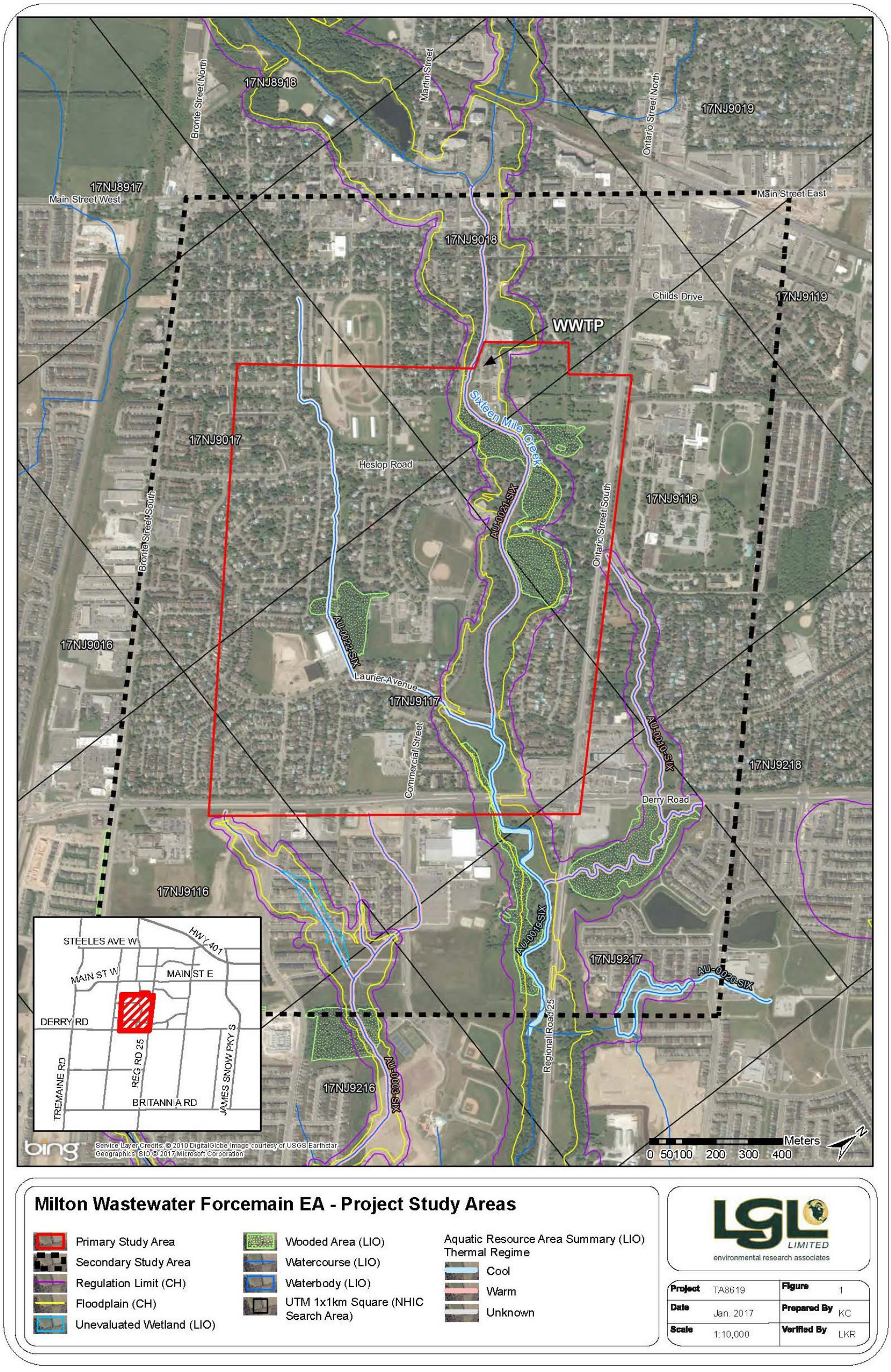

Figure 3 Natural Environment – Project Study Area

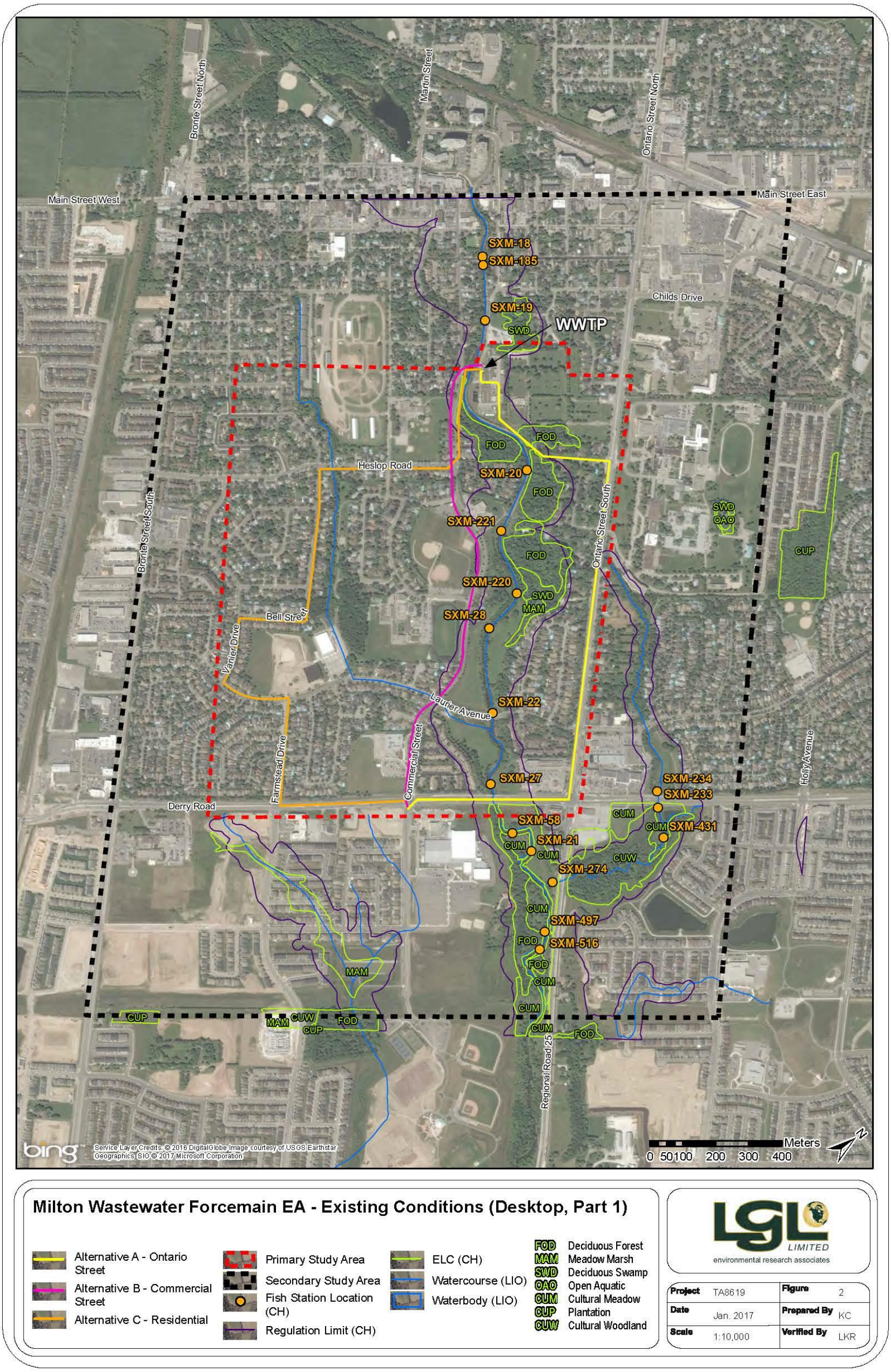

Figure 4 Natural Environment – Vegetation Communities

Figure 5 Natural Environment – Results of 2016 Field Investigation

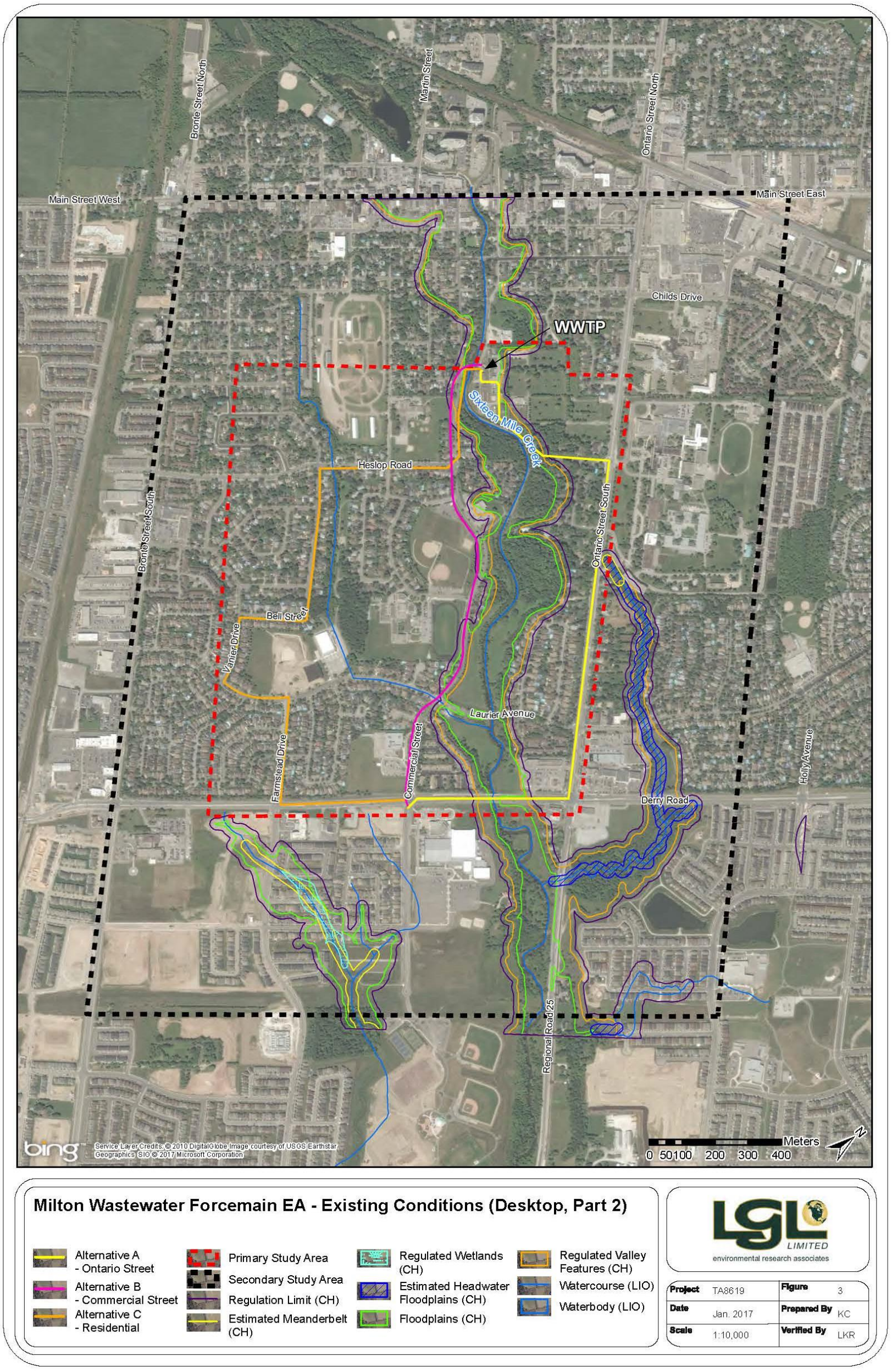

Figure 6 Natural Environment – Regulated Features

Sixteen Mile Creek

The fish habitat of Sixteen Mile Creek is documented to support a variable fish community depending on the characteristics of the individual reaches (Conservation Halton 2013). Below the Kelso dam, the West Branch flows through protected parkland with dense riparian cover, clean cobble/gravel substrate and a natural channel. Extensive groundwater discharge, originating from the Niagara Escarpment, provides coldwater conditions for resident and migratory species such as rainbow trout, brown trout, brook trout and mottled sculpin. In the vicinity of Milton, the channel flows through a fishway adjacent to the Milton Mill Pond, which supplements its water levels from the creek. Downstream of the Milton Mill Pond and just upstream of Martin Street, discharge from the pond enters the adjacent channel resulting in increased stream temperatures directly downstream of the pond. From Martin Street through downtown Milton and just above Derry Road, the creek is entrenched into a concrete channel. Within the concrete channel, storm sewers and the Milton wastewater treatment plant (WWTP) discharge effluent into the creek.

Downstream of the WWTP the hardened channel of the West Branch flows into a natural channel below Parkway Drive East. Erosion problems are noted along this reach. A small tributary from east of Ontario Street contributes potential coldwater conditions to the west branch. The reach of Sixteen Mile Creek north of Laurier Ave. is identified by MNRF as recovery habitat for Redside Dace, an endangered species afforded protection under the *Endangered Species Act, 2007* (A. McAllister, pers. comm. June 2, 2016). Downstream (south) of Laurier Avenue the creek provides habitat for Silver Shiner, a species identified as threatened on the Species at Risk in Ontario (SARO) list. Silver Shiner habitat includes the occupied reach of the creek and the floodplain (A. McAllister, pers. comm. June 2, 2016).

Fish Communities

Available information from MNRF's LIO database identifies the upper reach of Sixteen Mile Creek as a warmwater feature, while the thermal regime of the downstream reach is classified as coolwater. The tributary that approaches from the west side of the creek and follows Laurier Avenue (AU-0022-SIX on Figure 3 (LGL Figure 1)) is buried from the John Tonelli Sport Centre on Laurier Avenue to its confluence with Sixteen Mile Creek below the Laurier Avenue bridge. This

feature is identified by MNRF to have a coolwater thermal regime. No fish data was available for this tributary. The tributary that flows into Sixteen Mile Creek below Derry Road (AU-0010-SIX in Figure 3 (LGL Figure 1)) from east of Ontario Street supports a warmwater fishery.

3.2.9 Species At Risk

A review of the MNRF's NHIC database was conducted to search for SAR occurrence records for the Study area. Records for a total of 8 species were returned, including:

- Carey's Sedge
- Virginia Bluebells
- Greater Round-leaved Orchid
- Northern Hawthorn
- Rusty-patched Bumblebee
- Eastern Milksnake
- Timber Rattlesnake
- Redside Dace

The dates of the records returned suggest they are mostly historical (> 20 years old). Given the changes that have occurred across the landscape since these observations were made and the nature of the areas where project works are anticipated to occur (a highly urbanized, developed landscape), it is unlikely that habitat for all of these SAR is currently available. Two of the species listed above are afforded protection under the Endangered Species Act (ESA), namely the Rusty-patched Bumblebee and Redside Dace.

Further consultation with MNRF Aurora District office in May 2016 identified records for 8 SAR that occur within or adjacent to the Study area and 3 SAR with the potential to occur in or adjacent to the Study area. All of the SAR listed by the district office are tolerant of urban landscapes and are considered to have potential to occur. Of the 11 SAR identified through MNRF consultation, two (Milksnake and Redside Dace) were previously identified in the NHIC database search. Since the time data was received from MNRF, Milksnake has been down listed so that it is no

longer included in the Species at Risk in Ontario (SARO) listing. SAR with occurrence records for areas within or adjacent to the Study area as identified through MNRF consultation include the following:

- Snapping Turtle (SC);
- Eastern Wood Peewee (SC);
- Silver Shiner (THR);
- Chimney Swift (THR);
- Barn Swallow (THR);
- Bobolink (THR);
- Butternut (END); and,
- Redside Dace (END).

Those species with potential to occur as per MNRF consultation include:

- Bank Swallow (THR);
- Eastern Meadowlark (THR); and,
- Little Brown Myotis (END).

3.3 Archaeological Assessment

A Stage 1 Archaeological Assessment was completed by Archeoworks Inc., in support of this Municipal Class EA Study. A draft report was submitted to the *Ministry of Tourism, Culture and Sport (MTCS)* (Archaeology Program Unit), and revised based on comments received from MTCS. The complete revised Stage 1 Archaeological Assessment Report is included in Appendix C for further reference. The following summarizes the assessment, findings and recommendations.

Background research identified elevated potential for the recovery of archaeologically significant materials within the Study area based on the close proximity (within 300 metres) of: historic structures, historic transportation routes, previously registered archaeological sites, designated and listed cultural heritage resources, and a primary water source.

An on-site property inspection was conducted, where disturbances were documented within the Study area, including paved roads/sidewalks/driveways, roadside ditches, utilities, a former landfill, a culvert, extensive landscaping, and grading. Additionally, physiographic features with no or low archaeological potential were identified, consisting of areas of steep slope and permanently wet areas associated with the Sixteen Mile Creek. The remaining balance of the Study area was identified as retaining archaeological potential, and thus, require a Stage 2 Archaeological Assessment. Areas requiring a Stage 2 Archaeological Assessment include (but are not limited to): woodlots and manicured grassed margins.

Figure 7 presents the archeological potential of the three short-listed forcemain routes, as indicated by the (primarily purple) double lines.

Based on a collective review of all the background data and property inspection, the following recommendations, shown in Figure 7, are presented:

- Portions of the Study area exhibit disturbed conditions where archaeological potential has been removed. These disturbed areas are recommended to be exempt from further Stage 2 AA.
- Lands evaluated as having no or low potential are recommended to be exempt from further Stage 2 AA.
- All identified areas which contain archaeological potential, must be subjected to a Stage 2 AA. Given the urban location and narrow width of each alignment, the manicured grass areas and woodlots must be subjected to a shovel test pit archaeological survey.
- Should construction activities associated with this development project extend beyond the assessed limits of the Study area, further archaeological investigation will be required to assess the archaeological potential of these lands.

No construction activities shall take place within the Study area prior to the *Ministry of Tourism, Culture and Sport* (Archaeology Program Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

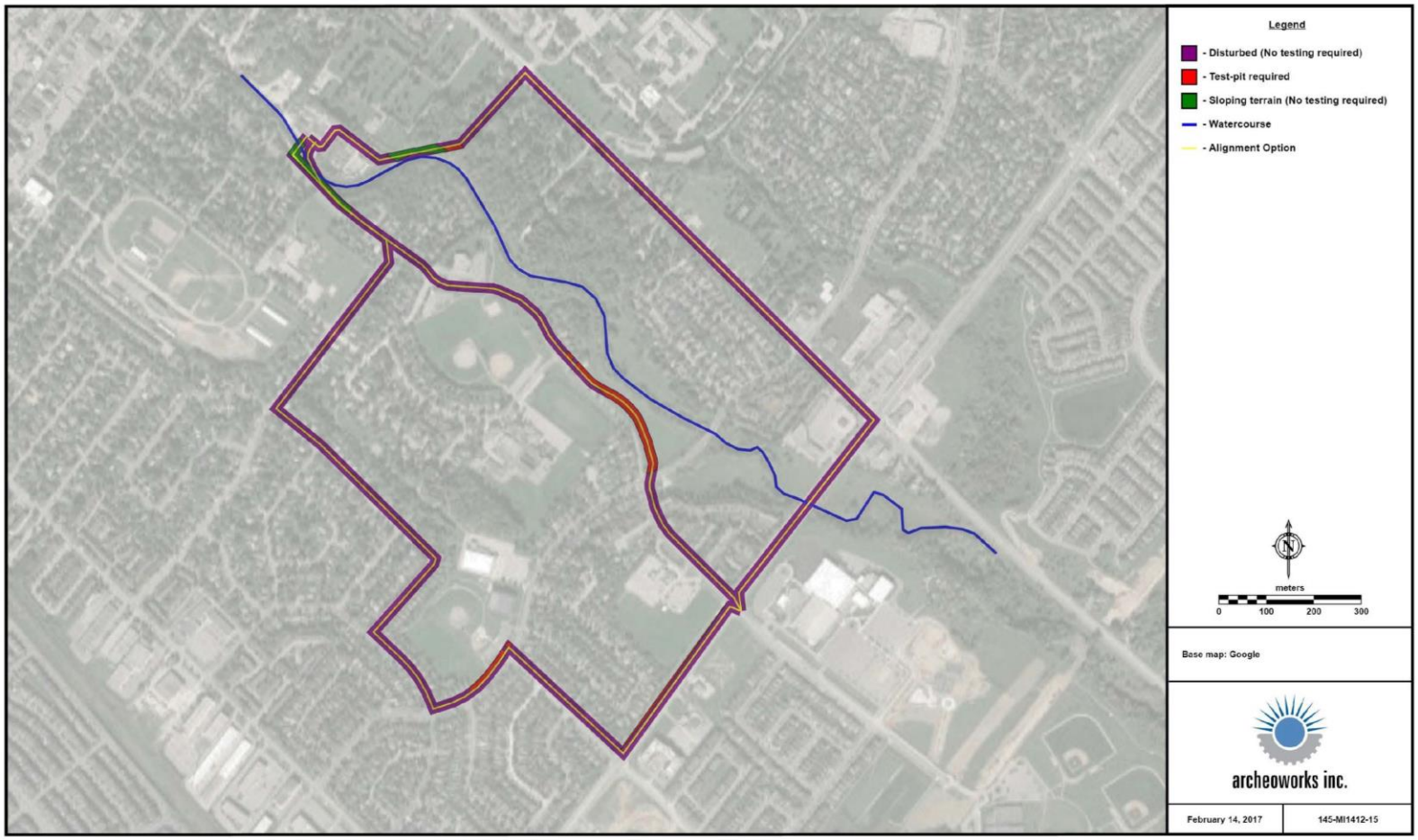

Figure 7 Archaeological Potential - Recommendations

3.4 Cultural Heritage & Built Environment

A Cultural Heritage Assessment Report (CHAR) was prepared by Unterman McPhail Associates to support this Municipal Class EA Study in order to review the cultural significance of the area within which the new forcemain will be constructed. The complete CHAR is included in Appendix D for further reference. The following summarizes the assessment, findings and recommendations.

Principal cultural heritage landscapes and above-ground built heritage features older than 40 years of age, located within and adjacent to the Study area were identified. Generally, infrastructure improvements or replacement have the potential to adversely affect cultural heritage landscapes and built heritage resources by displacement and/or disruption during as well as after construction. Built heritage resources and/or cultural heritage landscapes may experience displacement, i.e., removal, if they are located within the Right-of-Way (ROW) of the undertaking. There may also be potential for disruption and/or indirect impacts, to cultural heritage resources by the introduction of physical, visual, audible or atmospheric elements that are not in keeping with their character and, or setting. Isolation of cultural heritage resources may occur due to severance of land for new infrastructure. The isolation of a built heritage feature often leads to demolition due to neglect and/or vandalism. The survey identified a total ten (10) identified cultural heritage resources located within or adjacent to the alternative forcemain alignments. They are:

- Milton Evergreen Cemetery;
- Donald Campbell Avenue;
- 138 Commercial Street;
- 141 Commercial Street;
- 146 Commercial Street;
- 152 Commercial Street;
- 156 Commercial Street;
- 174 Commercial Street;
- 286 Sydney Street; and

- 1960s residential streetscape of Bell Street.

The Sixteen Mile Creek, which is historically linked to the development of Milton, is not identified as a cultural heritage landscape.

Although the identified resources are not located directly on the alignment of the new forcemains, they could be subject to direct or indirect impacts based on the nature of the construction staging plans. Direct impacts could include displacement through removal, while indirect impacts include the introduction of visual, audible, or atmospheric elements not in keeping with the setting of cultural heritage resources. Should detailed design or construction staging plans determine that any of the identified cultural heritage resources will be subject to displacement, a heritage impact assessment should be undertaken to determine the resource's specific heritage significance and to recommend specific mitigation measures. Consultation with the Town of Milton Heritage Planner should be undertaken before the detailed design.

4. Design Basis

The 2011 Sustainable Halton Water and Wastewater Master Plan identified a long-term peak wet weather flow for the Milton WWTP service area of 110 MLD.

Based on the above, and the existing 600 mm forcemain designed to accommodate 60 MLD, the new forcemain will be required to convey a peak wet weather flow of 50 MLD. This value is equal to the peak wet weather flow capacity of the Milton WWTP.

At a maximum design velocity of 2.5 m/s (per Halton Region Design Standards), the forcemain is required to have a diameter of 600 mm, matching the diameter of the existing forcemain along Commercial Street.

Design flows for the two forcemains are presented in Table 1.

Table 1 Wastewater Forcemain (WWFM) Design Basis

Parameter	Value
Existing WWFM	
Diameter	600 mm
Flow Capacity	60 MLD
Velocity at Peak Capacity	2.5 m/s
New WWFM	
Diameter	600 mm
Flow Capacity	50 MLD
Velocity at Peak Capacity	2.1 m/s

5. Forcemain Alignment Alternative Solutions

The Class Environmental Assessment process requires that all reasonable and feasible solutions (alternatives) shall be identified and described. Alternatives to address the problem/opportunity statement for the project were developed, taking into consideration the existing environment.

Four alternative solutions, in addition to the 'Do Nothing' alternative, have been developed for consideration. All alternatives are shown in Figure 8, with stations marked along the lengths of the proposed routes to enable description of key features of the route. The following sections describe the alternatives developed for the wastewater forcemain from the Milton WWTP to the Mid-Halton collection system at the HUSP manhole.

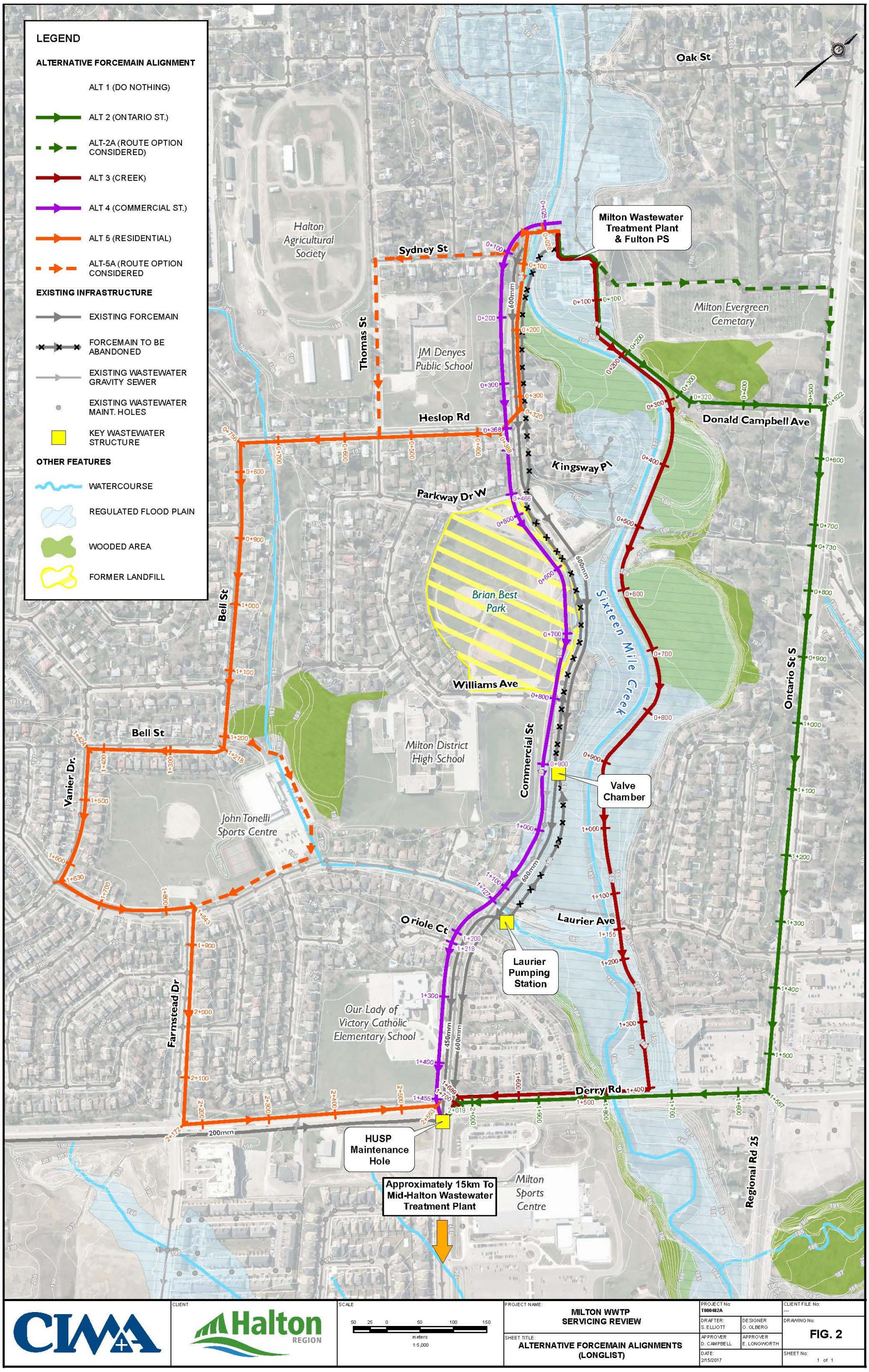

Figure 8 Alternative Forcemain Alignments

5.1 Alternative 1 (Do Nothing)

The Do Nothing alternative is required to be assessed as part of the Municipal Class EA process. This alternative would limit the flow that could be conveyed from the Milton WWTP to the HUSP manhole and would also not meet the Region's standards for reliability and redundancy with respect to the existing 600 mm forcemain from the Fulton WWPS. The Do Nothing alternative, therefore, does not meet the objectives of this project. This alternative is not a feasible alternative to address the problem and opportunity statement developed, and will not be considered further.

5.2 Alternative 2 (Ontario Street)

The alignment for Alternative 2 is located at the north of the Study area. From the Milton WWTP site it is located on the northern embankment of the Sixteen Mile Creek without crossing it and is located for the first 280 meters relatively close to the creek. The alignment of this section is either very close to the flood plain or is within the flood plain and meander belt of the Sixteen Mile Creek. The alignment crosses the wooded area between Milton Evergreen Cemetery and Donald Campbell Avenue at its smallest width, so that environmental disruption is minimized. The forcemain then joins the alignment of Donald Campbell Avenue towards Ontario Street.

In response to concerns raised by Conservation Halton regarding the proximity of this alternative to the Sixteen Mile Creek, an alternative to connect the forcemain from the Milton WWTP to Ontario Street through the Milton Evergreen Cemetery was considered, which would avoid crossing the wooded area and a location alongside the Creek, but would also require construction activity within the cemetery grounds. Because of the disruptive impact to the cemetery, and the lack of space within the existing easement through the cemetery, this variation was not considered further.

The pipe is then located along Ontario Street for more than 1 km, crossing road intersections and services at Parkway Drive East, Centennial Forest Drive, and Laurier Avenue.

The forcemain is located along the north side of Derry Road, where it crosses the Sixteen Mile Creek. The forcemain would need to be suspended from the road

bridge to avoid a low creek crossing with associated hydraulic concerns/chambers and environmental concerns (barring hydraulic flow restrictions for high creek flows). The length of exposed pipeline is approximately 80 meters, and may also require heat tracing.

The forcemain continues along Derry Road until it reaches the HUSP manhole near the intersection with Commercial Street. Total length is approximately 2,020 m.

As previously described, all alternatives will require a crossing of the Sixteen Mile Creek to connect the existing forcemain (located from just north of Sydney Street to Derry Road along Commercial Street) to the Fulton WWPS. This creek crossing is proposed to be constructed using trenchless technology to mitigate potential impacts to Sixteen Mile Creek.

5.3 Alternative 3 (Sixteen Mile Creek)

Alternative 3 is located along the northern banks of the Sixteen Mile creek. From the Milton WWTP site, Alternative 3 initially follows the same alignment as Alternative 2 (Ontario Street). From there it remains on the northern embankment of the Sixteen Mile Creek without crossing it. The alignment of this section is located entirely within the flood plain and meander belt of the Sixteen Mile Creek and is near or within wooded areas throughout its route. The forcemain would cross sanitary sewers at Parkway Drive East and Laurier Avenue. Between Parkway Drive and Laurier Avenue, there is no ready construction access to the proposed forcemain route.

At Derry Road, the forcemain route is the same as the alignment of Alternative 2 (Ontario Street) and is identical until the HUSP manhole connection, including suspension from the bridge (barring hydraulic flow restrictions for high creek flows). Total length is approximately 1,720 m.

As previously described, all alternatives will require a crossing of the Sixteen Mile Creek to connect the existing forcemain (located from just north of Sydney Street to Derry Road along Commercial Street) to the Fulton WWPS. This creek crossing is proposed to be constructed using trenchless technology to mitigate potential impacts to Sixteen Mile Creek

5.4 Alternative 4 (Commercial Street)

This alternative follows the alignment of the recently completed 600 mm diameter forcemain along Commercial Street. As previously described, the existing forcemain is located from just north of Sydney Street to Derry Road along Commercial Street, however there is no connection across Sixteen Mile Creek to the Milton WWTP for this existing forcemain.

The alignment for Alternative 3 starts at the Milton WWTP site located on the east side of Sixteen Mile Creek. In order to route the forcemain along Commercial Street, a creek crossing is required, which is proposed to be constructed using trenchless technology to mitigate potential impacts to Sixteen Mile Creek. The route of the forcemain then follows Commercial Street, crossing services and intersections at the following roads:

- Heslop Road
- Parkway Drive West
- Williams Avenue
- Laurier Avenue
- Oriole Court
- Derry Road

Throughout Commercial Street a number of existing utilities are located within the road allowance, requiring careful consideration and planning for construction. In addition to watermains, storm and sanitary sewers, two existing forcemains of 450 mm and 600 mm size are within the road allowance. The total length of this alternative is approximately 1,550 meters.

5.5 Alternative 5 (Residential)

This alternative considers the forcemain alignment through a residential area west of Commercial Street. The alignment follows the same route as Alternative 4 (Commercial St.) for the creek crossing until Commercial Street is reached. In order to route the forcemain towards Commercial Street, a creek crossing is required, which is to be constructed using trenchless technology to mitigate potential impacts to the Sixteen Mile Creek. An initial routing via Sydney Street and

Thomas Street (dashed line shown on Figure 8) was considered, but rejected because the available road width in Sydney Street is insufficient to construct the forcemain. Therefore the forcemain is located along Commercial Street to Heslop Road where the road is wider and an abandoned 200 mm watermain alignment can be utilized within the roadspace. The forcemain is then located along Heslop Road west towards Bell Street. Bell Street has a road width of approximately 9 m with a watermain located in the eastern side boulevard and a storm sewer and sanitary sewer within the road width. The forcemain is located along Bell Street to Vanier Drive.

A previously considered sub-alternative was to route the forcemain via the John Tonelli Sports Centre towards Laurier Avenue and Farmstead Drive. This alignment was considered, but rejected to reduce potential impacts on the Sports Centre and avoid crossing the creek/culvert twice. The sub-alternative is shown in Figure 8 as a dashed line.

The proposed forcemain route is then located along Vanier Drive to Laurier Avenue, to Farmstead Drive.

On Farmstead Drive the forcemain crosses Roseheath Drive and continues to Derry Road. The forcemain is then located along Derry Road, where it continues towards the intersection with Commercial Drive and the connection to the HUSP manhole.

The total length of this alternative is approximately 2,650 meters.

6. Evaluation of Alternative Forcemain Alignments

6.1 Overview of Evaluation Approach

The evaluation methodology is essential in guiding the decision making process. The key guiding elements for evaluating alternatives utilized in this Municipal Class EA Study were:

- Consideration of the effects of each alternative on all aspects of the environment;
- Systematic evaluation;
- Traceable decision-making process; and
- Public and review agency input in the evaluation.

A well-structured comprehensive evaluation methodology provides the foundation for a decision making process that is sound, defensible, traceable and consistent with the project objectives.

The proposed decision-making methodology for this project comprises the following major sequential steps:

1. Development of a long list of forcemain alignment alternative solutions.
2. Preliminary screening of forcemain alignment alternative solutions endorsed by a set of preliminary screening criteria. Preliminary screening criteria were developed to reflect major goals and objectives of the Municipal Class EA Study.
3. Detailed evaluation of the feasible short-listed forcemain alignment alternative solutions using a multi-criteria decision analysis based on technical, environmental, social, legal/jurisdictional and economic considerations grouped in categories and scored comparatively using an evaluation matrix.
4. Identification of the recommended forcemain alignment alternative solution to be presented to the public.

The activities involved in each of the steps listed above, and the summary of the results of those activities completed to date are described in the following sections.

6.2 Development of Long List of Alternatives

In accordance with Phase 2 of the Municipal Class EA process, alternative solutions have been identified to address the need for a 600 mm forcemain to convey raw sewage to the Mid-Halton WWTP for treatment.

Five potential alternative solutions, including the “do nothing” alternative, were identified as possible routes for the new 600 mm forcemain from the new Fulton WWPS (on the existing Milton WWTP site) to the HUSP manhole to join with the Mid-Halton WWTP collection system, and were described in Section 5. The long list of alternatives includes:

+ Alternative 1: Do Nothing
+ Alternative 2: Ontario Street
+ Alternative 3: Sixteen Mile Creek

- Alternative 4: Commercial Street
- Alternative 5: Residential

6.3 Preliminary Screening of Alternatives

To identify a short list of forcemain alignment alternatives to be carried forward for detailed evaluation, each of the five alternatives on the long list is subject to a feasibility assessment to evaluate its ability to meet the following three (3) screening criteria:

- Alternative meets the Region's standards for reliability and redundancy. The Region requires that forcemains have a level of redundancy to allow for infrastructure to be taken out of service for maintenance or repairs.
- Alternative is technically feasible. The alternative must be able to be constructed using reliable construction methods.
- Alternative is protective of the natural environment. Alternative must meet the intent of the Conservation Halton Regulation and Guidelines set out in Ontario Reg. 162/06, which restricts the placement and construction of public infrastructure within hazardous lands and valleylands subject to certain criteria and provisions.

Table 2 presents the assessment of the long list of forcemain route alternatives against the screening criteria.

Table 2 Screening of Long List of Alternatives

Alternative	Alternative meets the Region's standards for reliability and redundancy		Alternative is technically feasible		Alternative is protective of the natural environment	
	Assessment	Carry/ Not Carry Forward	Assessment	Carry/ Not Carry Forward	Assessment	Carry/ Not Carry Forward
1. Do Nothing	No new forcemain does not provide reliability and redundancy.	Not carry forward	No new forcemain means that there is no servicing for the Milton community, which is not	Not carry forward	No second forcemain for reliability and redundancy means greater potential risk to the natural	Not carry forward

Alternative	Alternative meets the Region's standards for reliability and redundancy		Alternative is technically feasible		Alternative is protective of the natural environment	
	Assessment	**Carry/ Not Carry Forward**	**Assessment**	**Carry/ Not Carry Forward**	**Assessment**	**Carry/ Not Carry Forward**
			technically feasible.		environment in the event of disruption at the Fulton WWPS.	
2. Ontario Street	Second forcemain provides reliability and redundancy.	Carry forward	Construction is primarily along the road right-of-way and is technically feasible.	Carry forward	Alternative requires a crossing of the Sixteen Mile Creek and therefore passes through some natural features, but careful construction methods can ensure protection of the environment.	Carry forward
3. Sixteen Mile Creek (northern banks)	Second forcemain provides reliability and redundancy.	Carry forward	Construction is along the northern banks of the Sixteen Mile Creek and would require careful construction methods, but is considered technically feasible.	Carry forward	Majority of length of new forcemain is within the floodplain and naturally sensitive areas where there is significant risk of impact to the environment. As per Ontario Reg. 126/06, development is restricted within a river valley when feasible	Not carry forward

Alternative	Alternative meets the Region's standards for reliability and redundancy		Alternative is technically feasible		Alternative is protective of the natural environment	
	Assessment	**Carry/ Not Carry Forward**	**Assessment**	**Carry/ Not Carry Forward**	**Assessment**	**Carry/ Not Carry Forward**
					alternatives are available.	
4. Commercial Street	Second forcemain provides reliability and redundancy.	Carry forward	Construction is primarily along the road right-of-way and is technically feasible.	Carry forward	Alternative requires a crossing of the Sixteen Mile Creek and therefore passes through some natural features, but careful construction methods can ensure protection of the environment.	Carry forward
5. Residential	Second forcemain provides reliability and redundancy.	Carry forward	Construction is primarily along the road right-of-way and is technically feasible.	Carry forward	Alternative requires a crossing of the Sixteen Mile Creek and therefore passes through some natural features, but careful construction methods can ensure protection of the environment.	Carry forward

Based on the results of the screening, the following three alternatives will be carried forward for detailed evaluation as follows:

- Alternative A: Ontario Street

- Alternative B: Commercial Street
- Alternative C: Residential

6.4 Detailed Evaluation of Short Listed Alternatives

The three short-listed forcemain alternatives were then subjected to a detailed comparative evaluation using an evaluation matrix that enables a systematic and rational comparison of the alternatives and focuses on a set of criteria for five main categories; technical, environmental, social, legal/jurisdictional and economic.

The evaluation methodology consists of a descriptive or qualitative evaluation of alternative forcemain routes and identification of advantages and disadvantages of each alternative option with respect to the evaluation criteria. In this respect, comparisons and trade-offs can be made between alternatives. Trade-offs can involve forfeiting an advantage or accepting a disadvantage to address a higher priority consideration.

An evaluation matrix was prepared describing the specific advantages and disadvantages that each alternative option offers for each criterion under consideration. For each option, detailed information is provided with a description of:

- Risk and/or potential impacts for each criterion
- Approaches to mitigating risks and/or impacts
- Scoring rationale, based on degree of risk and/or mitigation required
- Score.

Scores were assigned as follows:

○ Indicates factors likely to result in long lasting effects (i.e. mitigation possible but will not eliminate the effect entirely)

◐ Indicates factors likely to result in effects which will require extensive mitigation

● Indicates factors that may result in short term effects or effects which can be completely mitigated

All categories were weighted equally in determining a preliminary preferred alternative.

In order to determine a preliminary preferred alternative, scores were assigned for each alternative against each criterion. Any alternative that has white (empty) circle scores is not preferred as this means that there are long-lasting effects and mitigation will not result in elimination of the effects. The preliminary preferred alternative is that with the most black (full) circle scores as this means that any effects are short term or can be completely mitigated, which is the preferred outcome.

6.4.1 Evaluation Criteria

A list of evaluation criteria within each main category was developed, each intended to reflect specific issues and considerations most relevant to this project. The evaluation criteria, grouped by main categories, as well as the rationale for how each criterion will be scored is summarized in Table 3.

Table 3 Evaluation Criteria and Scoring Rationale

Category	Criteria	Rationale
Technical	**Constructability** – Complexity of Construction e.g. floodplain issues, creek crossings, utilities and existing infrastructure along the alignment	• Complexity of construction is minor with minimal mitigation – Full • Complexity of construction is moderate with some potential for impact on existing infrastructure, requires some mitigation – Half • Complexity of construction is major with significant mitigation and effort required to prevent impact – Empty
	Operational Complexity – Length of forcemain and operation of the new Fulton WWPS	• Potential risk to increase operational complexity of existing Fulton WWPS is minor and relatively short forcemain length leading to reduced energy consumption from pumping – Full • Potential risk to increase operational complexity at Fulton WWPS is moderate and the forcemain length is longer than the shortest but shorter than the longest leading to moderate energy consumption from pumping – Half

Category	Criteria	Rationale
		• Potential risk to increase operational complexity at Fulton WWPS is high and the forcemain length is the longest leading to high energy consumption from pumping – Empty
Natural	**Impact to Sensitive Features and Regulated Areas** - Creek crossings, construction in the floodplain, construction through wooded areas	• Minimal creek crossings, construction in the floodplain and construction through wooded areas – Full • Moderate creek crossings, construction in the floodplain and construction through wooded areas – Half • Many creek crossings, large sections of construction in the flood plain and through wooded areas – Empty
	Impact to Species at Risk - Potential to disrupt regulated habitat of species at risk identified in the Study area (Redside Dace, Silver Shiner, Barn Swallow)	• Minimal potential to impact species at risk or identified habitat locations for these species – Full • Moderate potential to impact species at risk or identified habitat for these species – Half • Major potential to impact species at risk or identified habitat for these species - Empty
	Closed Landfill Sites – Potential to disrupt landfill and require careful planning and mitigation for construction waste disposal	• Minimal potential to disrupt landfill based on proximity of construction to the closed landfill sites, minimal mitigation for construction waste disposal required – Full • Moderate potential to disrupt landfill based on proximity of construction to the closed landfill sites, moderate mitigation for construction waste disposal required – Half • Major potential to disrupt landfill based on proximity of construction to the closed landfill sites, major mitigation for construction waste disposal required – Empty
	Constraints on Creek Channel – minimize impacts to	• Minimal potential for limitations to future creek modifications based on proximity of construction to creek channel – Full • Moderate potential for limitations to future

Category	Criteria	Rationale
	future work on creek channel improvements	creek modifications based on proximity of construction to creek channel – Half • Major potential for limitations to future creek modifications based on proximity of construction to creek channel – Empty
Social	**Nuisance Impacts During Construction** – Noise, dust, truck traffic, property access requirements during construction; number of sensitive occupants such as schools, daycares and long term care facilities.	• Minimal potential for noise, dust, truck traffic. Minimal or no property access required during construction, sufficient space within road right of way for construction therefore minimal traffic interruptions – Full • Moderate potential for noise, dust, truck traffic. Some property access required during construction, some limitations to space within road right of way for construction therefore some potential for lane restrictions and traffic interruptions – Half • Major potential for noise, dust, truck traffic during construction. Significant property access required during construction for staging areas and major limitations to construction within road right of way, therefore high potential for lane restrictions and traffic interruptions – Empty
	Archaeological Heritage Sites - Potentially impacted by forcemain route; potential to finding artifacts. Based on length of route within previously disturbed road right of way.	• Minimal risk to archaeological heritage sites based on length of route within previously disturbed road right of way and proximity to known historic sites – Full • Moderate risk to archaeological heritage sites based on length of route within previously disturbed road right of way and proximity to known historic sites – Half • Major risk to archaeological heritage sites based on length of route within previously disturbed road right of way and proximity to known historic sites – Empty
	Built Cultural Heritage Sites - Potentially impacted by forcemain route.	• Minimal risk to built cultural heritage sites based on proximity to known cultural sites – Full • Moderate risk to built cultural heritage sites based proximity to known cultural sites – Half • Major risk to built cultural heritage sites

Category	Criteria	Rationale
		based on proximity to known cultural sites – Empty
Legal/ Jurisdictional	**Land Acquisition Requirements –** Property and easements (both permanent and temporary) within public and private lands	• Minimal land acquisition requirements along route within public and private lands – Full • Moderate land acquisition requirements along route within public and private lands – Half • Major land acquisition requirements for large portions of the route within public and private lands – Empty
	Approval Requirements – Conservation Halton, Floodplain and Creek Crossing, Town of Milton Permitting and Regional permitting for construction on Regional roads. Potential schedule impacts due to permitting requirements.	• Minimal or no approvals and permits required, and no impact to schedule due to permitting – Full • Some approvals and permits required, with some potential for schedule delays due to permitting – Half • Many approvals and permits required with high potential for schedule delays due to permitting – Empty
Economic	**Life-Cycle Cost** – Capital cost plus operating and maintenance costs for a 50-year period.	• Lowest life-cycle cost – Full • Medium life-cycle cost – Half • Highest life-cycle cost – Empty

6.4.2 Selection of Preferred Forcemain Alignment

As described in the previous sections, an evaluation matrix was prepared describing the specific advantages and disadvantages that each alternative route offers for each criterion under consideration, presented in Table 4.

In order to determine a recommended alternative, scores were assigned for each alternative against each criterion. Any alternative that has empty circle scores is not preferred as this means that there are long-lasting effects and mitigation will not result in complete elimination of the effects. The recommended alternative is that with the most full circle scores as this means that any effects are short term or can be completely mitigated, which is the preferred outcome.

The results of the detailed evaluation and recommended alternative were presented to the public for input at the Public Information Centre held for the project. The preferred alternative was confirmed based on comments and feedback received from project stakeholders including the public and review agencies.

Table 4 Detailed Evaluation Matrix

		Alternative A – Ontario Street		Alternative B – Commercial Street		Alternative C - Residential	
Technical	**Constructability -** Complexity of Construction e.g. floodplain issues, creek crossings, utilities and existing infrastructure along the alignment	Road widths and number of existing utilities and infrastructure within the roads along this alignment show sufficient space in the right of way for construction. Creek crossing occurs along Derry Road and pipe will be attached to the Derry Road bridge to facilitate construction.	◐	There are a number of existing utilities (forcemains, water mains, storm sewers, cable TV, Bell media, and gas mains) within the right of way of Commercial Street. There is potential to construct the new forcemain within the alignment of the existing 450 mm forcemain which will be abandoned. Very careful coordination will be required to enable this as the two existing forcemains of 450 and 600 mm size frequently change roadsides and cross other utilities. Construction through floodplain required for crossing of Sixteen Mile Creek at the Milton WWTP.	◐	Road widths and number of existing utilities and infrastructure within the roads along this alignment show sufficient space for construction, though there may be restrictions to property access during construction through narrower residential streets. Construction through floodplain required for crossing of Sixteen Mile Creek at the Milton WWTP.	◐
	Operational complexity – Length of forcemain and operation of the new Fulton WWPS	Total forcemain length of 2,020 m (2.0 km) Due to alignment topography, anticipated minimum of one air valve and one drain chamber. Operation of two forcemains along different alignments may cause additional operational complexity due to differing operating conditions (headloss, pumping requirements).	◐	Total forcemain length of 1,550 m (1.6 km) Due to alignment topography, anticipated minimum of one air valve and one drain chamber. Operation of two forcemains along the same alignment will minimize operational complexity due to same operating conditions (headloss, pumping requirements).	●	Total forcemain length of 2,650 m (2.7 km). Due to alignment topography, anticipated minimum of three air valves and two drain chambers. Operation of two forcemains along different alignments may cause additional operational complexity due to differing operating conditions (headloss, pumping requirements).	○
Natural	**Impact to Sensitive Features and Regulated Areas -** Creek crossings, construction in the natural hazard areas (i.e. flood plains, erosion hazards, etc.)., construction through wooded areas	The northern portion of this alignment lies within the meander belt and valley wall erosion hazards, as well as the regulated floodplain and valley of Sixteen Mile Creek . It also crosses a Sugar Maple-Beech Deciduous Forest (FOD5-2) where tree impacts are anticipated. The FOD 5-2 functions as candidate significant wildlife habitat for species of conservation concern (Eastern Wood Pewee - listed as Special Concern), therefore vegetation removals also represent an impact to the extent and quality of wildlife habitat. The remainder of the alignment utilizes existing road rights of way.	○	Given the proximity of Commercial Street to Sixteen Mile Creek and the need for a new crossing of the creek, sections of this alignment fall within the regulated floodplain and valley wall erosion hazards of Conservation Halton (CH). No other sensitive natural heritage features are identified along the alignment.	●	With the exception of a new crossing of Sixteen Mile Creek, the routing of this alternative utilizes existing road rights of way. The crossing location of the creek lies within the regulated floodplain and valley wall erosion hazards of Conservation Halton (CH). The FOD5-3 Sugar Maple- Oak Deciduous Forest fronting Bell Street extends to the curb side. Mitigation to avoid impacts to the feature and its function would include routing the forcemain to utilize the west side of the road through this area, to the extent feasible.	◐
	Impact to Species at Risk – Potential to disrupt species at risk habitat and individuals	Much of the alignment follows road rights of way which are not generally considered to represent an area of high sensitivity from a natural heritage standpoint. However, in this case the bridge structure on Derry Road over Sixteen Mile Creek provides habitat for Barn Swallow (Threatened, and afforded	◐	Sixteen Mile Creek represents recovery habitat for Redside Dace (END) and habitat for Silver Shiner (THR), both of which are afforded protection under the *Endangered Species Act, 2007.* Habitat for Silver Shiner is identified to include the floodplain of the creek. Impacts to species at risk relate to the crossing of Sixteen	●	Sixteen Mile Creek represents recovery habitat for Redside Dace (END) and habitat for Silver Shiner (THR), both of which are afforded protection under the *Endangered Species Act, 2007.* Habitat for Silver Shiner is identified to include the floodplain of the creek. Impacts to species at risk relate to	●

		protection under the *Endangered Species Act, 2007*). The northern portion of the proposed alignment lies within the meander belt limits of Sixteen Mile Creek. Infrastructure placement within the meander belt has the potential to impact habitat for Redside Dace (Endangered, and afforded protection under the *Endangered Species Act, 2007*). Note: This analysis assumes that crossing of Sixteen Mile Creek at Derry Road will utilize the road right of way and existing bridge structure to remain outside of the floodplain and associated habitat for Silver Shiner (Threatened, and afforded protection under the Endangered Species Act, 2007).		Mile Creek at the treatment plant on Fulton Street with the new forcemain. The proposed trenchless crossing is anticipated to have a minor impact to the habitat given that the construction methodology and that the creek is hardened through this area. Mitigation typical for this type of construction (e.g. frac out plan) is anticipated to mitigate impacts associated with this type of construction assuming that sufficient cover can be achieved between the creek bed and the top of the forcemain.		the crossing of Sixteen Mile Creek at the treatment plant on Fulton Street with the new forcemain. The proposed trenchless crossing is anticipated to have a minor impact to the habitat given that the construction methodology and that the creek is hardened through this area. Mitigation typical for this type of construction (e.g. frac out plan) is anticipated to mitigate impacts associated with this type of construction assuming that sufficient cover can be achieved between the creek bed and the top of the forcemain.	
	Closed Landfill Sites – Potential to disrupt landfill and require careful planning and mitigation for construction waste disposal	There are no closed landfill sites along this alternative alignment.	●	There is one closed landfill site along this alignment within Brian Best Park along Commercial Street between Parkway Drive West and Williams Avenue. Alignment would touch the northern and northeastern border of this closed landfill site, however proposed forcemain alignment is on the east side of Commercial Street at this location, so minimal impact is expected. Any impact can be mitigated by proper material disposal procedures.	◐	There are no closed landfill sites along this alternative alignment.	●
	Constraints on Creek Channel – Minimize impacts to future work on creek channel improvements	This alignment runs parallel to Sixteen Mile Creek between the Milton WWTP and Donald Campbell Avenue. Placement of the forcemain in the proposed location may negatively impact maintenance of the existing flood control channel (i.e. slab repairs and/or replacements, etc.) and could limit any considerations of future re-alignment of the creek.	○	This alignment crosses the creek at the Milton WWTP and the extent and depth of the forcemain to be installed through this area will be planned in consultation with CH to ensure that opportunities for any future re-alignment of the creek are not constrained.	●	This alignment crosses the creek at the Milton WWTP and the extent and depth of the forcemain to be installed through this area will be planned in consultation with CH to ensure that opportunities for any future re-alignment of the creek are not constrained.	●

	Nuisance Impacts During Construction – Noise, dust, truck traffic, property access requirements during construction; number of sensitive occupants such as schools, daycares and long term care facilities.	Impact to local residents on Donald Campbell Avenue with potential for vehicular restrictions. Along Ontario Street and Derry Road, social impacts in terms of access can be reduced by carefully selecting construction methods and sequencing of works. Width of both roads allows traffic to flow in both directions. Potential for impacts to shopping centres at intersection of Ontario Street and Derry Road. Noise, dust and truck traffic impact can be mitigated by establishing working methods and times that are acceptable. Alternative passes entrance to one school (E.C. Drury), but does not pass directly by school itself. Alignment passes directly adjacent to Milton Evergreen Cemetery.	◐	Commercial Street is two lanes and would require traffic management and traffic flow restrictions. There are nuisance impacts associated with constructing along a recently re-constructed street. Alignment passes 4 schools along Commercial Street (J.M. Denyes PS, Learning Blocks Montessori School, Milton District HS, Our Lady of Victory Catholic School). Alignment passes 2 parks (Brian Best, Sixteen Mile Creek North). Noise, dust and truck traffic impact can be mitigated by establishing working methods and times that are acceptable.	◐	Residents along Bell Street and Vanier Drive may face access restrictions to their properties due to the narrow road width. Entire length of route is along residential streets. Noise, dust and truck traffic impact can be mitigated by establishing working methods and times that are acceptable, however, there is higher potential for impacts due to closer proximity to residences. Alignment passes 2 schools along Commercial Street and Heslop Road (J.M. Denyes PS, Songbirds Montessori School). Alignment passes 1 park (Bronte Meadows).	○
Social	**Archeological Heritage Sites –** Potentially impacted by forcemain route; potential to finding artifacts. Based on length of route within previously disturbed road right of way.	Minimal risk to archeological heritage sites as areas are generally highly disturbed and therefore hold little archeological potential, however there are some areas along alignment that have potential for archeological significance and require a Stage 2 Archeological Assessment to be conducted to mitigate any risk of disturbance to archeological artifacts. Alternative A features 1 location that retains archeological potential. Given the urban location and narrow width of each alignment, the manicured grass areas and woodlots must be subjected to a shovel test pit archaeological survey.	●	Minimal risk to archeological heritage sites as areas are generally highly disturbed and therefore hold little archeological potential, however there are some areas along alignment that have potential for archeological significance and require a Stage 2 Archeological Assessment to be conducted to mitigate any risk of disturbance to archeological artifacts.. Alternative B features 3 locations that retain archeological potential. Given the urban location and narrow width of each alignment, the manicured grass areas and woodlots must be subjected to a shovel test pit archaeological survey.	●	Areas are generally highly disturbed and therefore hold little archeological potential, however there are some areas along alignment that have potential for archeological significance and require a Stage 2 Archeological Assessment to be conducted to mitigate any risk of disturbance to archeological artifacts. Alternative C features 2 locations that retain archeological potential. Given the urban location and narrow width of each alignment, the manicured grass areas and woodlots must be subjected to a shovel test pit archaeological survey.	●
	Built Cultural Heritage Sites – Potentially impacted by forcemain route.	Principal cultural heritage landscapes and above-ground built heritage features older than 40 years of age, located within and adjacent to the Study area were identified. Generally, infrastructure improvements or replacement have minimal risk to adversely affect cultural heritage landscapes and built heritage resources by displacement and/or disruption during as well as after construction. One (1) cultural heritage landscape listed on the Town of Milton's Heritage listing, the Milton Evergreen Cemetery, is identified adjacent to Alignment A. Construction adjacent to this property is not expected to have any impact on this heritage listed site.	●	Principal cultural heritage landscapes and above-ground built heritage features older than 40 years of age, located within and adjacent to the Study area were identified. Generally, infrastructure improvements or replacement have minimal risk to adversely affect cultural heritage landscapes and built heritage resources by displacement and/or disruption during as well as after construction. Seven (7) built heritage resources listed on the Town of Milton's Heritage listing, houses on Commercial Street and Sydney Street, are located along Alignment B. Construction within the road right-of-way is not expected to have any impact on these heritage listed properties.	●	Principal cultural heritage landscapes and above-ground built heritage features older than 40 years of age, located within and adjacent to the Study area were identified. Generally, infrastructure improvements or replacement have minimal risk to adversely affect cultural heritage landscapes and built heritage resources by displacement and/or disruption during as well as after construction. Seven (7) built heritage resources listed on the Town of Milton's Heritage listing, houses on Commercial Street and Sydney Street, are located along Alignment C. Construction within the road right-of-way is not expected to have any impact on these	●

						heritage listed properties.	
Legal/ Jurisdictional	**Land Acquisition Requirements –** Property and easements (both permanent and temporary) within public and private lands	Land acquisition required to construct portion of forcemain connecting to end of Donald Campbell Avenue. Permanent easements for property along Sixteen Mile Creek between Milton WWTP and Donald Campbell Avenue, and for crossing of Sixteen Mile Creek.	◐	Permanent easement required for crossing of Sixteen Mile Creek.	◐	Permanent easement required for crossing of Sixteen Mile Creek.	◐
	Approval Requirements – Conservation Halton, Floodplain and Creek Crossing, Town of Milton Permitting and Regional permitting for construction on Regional roads. Potential schedule impacts due to permitting requirements.	Consultation and approvals from Conservation Halton would be required for construction through the meander belt and valley wall erosion hazards, as well as the regulated floodplain between the Milton WWTP and Donald Campbell Avenue. Municipal Consent Permit required from Town of Milton for construction along roads under the jurisdiction of the Town.	○	Consultation and approvals from Conservation Halton would be required for construction through the floodplain. Municipal Consent Permit required from Town of Milton for construction along roads under the jurisdiction of the Town.	◐	Consultation and approvals from Conservation Halton would be required for construction through the floodplain. Municipal Consent Permit required from Town of Milton for construction along roads under the jurisdiction of the Town.	◐
Economic	**Life-Cycle Cost –** Capital cost plus operating and maintenance costs for a 50-year period. Detailed cost estimates are included in Appendix E.	Capital: $6.3 million Annual O&M: $72,500 50-year life-cycle cost: $8.0 million		Capital: $6.1 million Annual O&M: $59,200 50-year life-cycle cost: $7.5 million		Capital: $8.4 million Annual O&M: $89,100 50-year life-cycle cost: $10.4 million	
				Preferred Alternative Solution			

7. Public and Agency Consultation

Consultation with government review agencies and the public is a necessary and important component of the Municipal Class EA process. This section of the report provides an overview of the public and agency consultation component of the Municipal Class EA Study. Further documentation related to the consultation activities undertaken during this Municipal Class EA Study is included in Appendix A.

7.1 Public Consultation Overview

Halton Region undertook a consultation and communication program with a goal to effectively obtain feedback from members of the public. Comments received throughout the course of the Study were considered and are documented in Section 7.1.5 below.

The Municipal Class EA specifies two mandatory points of contact for Schedule B projects:

- An invitation for the public, Indigenous communities, agencies and other stakeholders to comment on the alternative solutions under consideration.
- A Notice of Completion for the project and an opportunity for the public, Indigenous communities, agencies and other stakeholders to review the Project File.

The following sections document how Halton Region has met Municipal Class EA consultation requirements.

7.1.1 Notice of Commencement and Public Information Centre (PIC)

A Notice of Commencement and PIC was issued in local newspapers to inform the public that a Municipal Class EA Study was being conducted to review potential alignments of the new wastewater forcemain from Fulton WWPS located in the Town of Milton. The Notice was issued on November 10, 2016 and appeared in the Milton Champion newspaper on November 10th, 2016 and November 17th, 2016. A copy of the Notice is included in Appendix A.

7.1.2 Direct Mailings to Stakeholders

A direct mailing list was developed at the initiation of the project, and was continually updated throughout the course of the project. Direct mailings were made to notify residents, landowners, politicians, municipalities, school boards, Indigenous communities groups, Provincial and Federal agencies, interest groups and utilities of the project. Residents along each of the forcemain alignment routes as well as within a 500 m radius of the Milton WWTP site were included on the mailing list to ensure that they were informed of the project and that their concerns were heard through the Municipal Class EA process. The mailing list that was developed and maintained is included in Appendix A.

7.1.3 Project Website

A link to the project website (www.halton.ca/EAprojects) was provided in all of the notices that were sent out. Notices, Public Information Centre materials, relevant information and a copy of this Project File have been posted on the site.

7.1.4 Public Information Centre

One Public Information Centre (PIC) for this project was held as an open forum to encourage attendees to walk around, review the display panels and have one-on-one conversations with staff from the Region and its consultant team. The PIC was conducted on November 23, 2016. A formal Notice of Study Commencement and PIC was issued in several formats, including on the Region's website and in the Milton Canadian Champion publication.

The public meeting materials available included:

- Display panels: Including information about the project using both text and visuals
- Comment Sheets: Participants could fill out these sheets as an opportunity to provide comments, make suggestions or ask questions about the project and/or the Municipal Class EA Study process.

Copies of the display panels and other material available at the meetings are included in Appendix A.

The PIC was targeted to:

- Notify about the closure of the Milton WWTP;

- Obtain input on the alternative alignments investigated for the new forcemain from the Fulton WWPS to the intersection of Santa Maria Boulevard and Derry Road;
- Obtain input on the evaluation criteria utilized to determine the recommended alignment of the new forcemain; and
- Obtain input on the recommended alternative for the new forcemain from the Fulton WWPS to the intersection of Santa Maria Boulevard and Derry Road along Commercial Street.

7.1.5 Public Comments Received and Responses

In general, there was support for the preliminary preferred alternative, however there were some key issues raised by the members of the public through the PIC and Study process. Table 5 provides a summary of issues raised by the public and the responses provided by the Region to mitigate these issues through the proposed project implementation. A more detailed list of issues raised is provided in Appendix A.

Table 5 Summary of Comments Raised by the Public

Comment/Concern	Halton Region Response
Potential impact of removing Milton WWTP flow from Sixteen Mile Creek	A Sixteen Mile Creek Impact Assessment Study, which investigated impacts and benefits of Milton WWTP decommissioning, was undertaken in partnership with Conservation Halton and Ministry of the Environment and Climate Change. This comprehensive Study provided several conclusions and recommendations which were discussed and vetted with the participating government agencies.
Soil stability	A geotechnical investigation will be completed during detailed design to determine appropriate construction methods.
Low frequency noise and vibration	There will be no low frequency noise associated with the installation of a new forcemain. The operation of forcemains does not contribute to noise or vibration issues.
Access to properties, resident safety and traffic control during construction	All construction will adhere to strict safety guidelines. Traffic control measures will be developed to mitigate any potential traffic

Comment/Concern	Halton Region Response
	disturbance during construction of the forcemain. Standard best practices for vehicle and pedestrian safety will be used during construction.
Impact of disruption to closed landfill along proposed forcemain route	Geotechnical investigation will be undertaken during the detail design stage and during that time, if necessary, mitigation measures to be implemented during construction will be identified. Halton will comply with all regulations and procedures regarding construction within the vicinity of closed landfill sites.
Potential disruption to services during construction	Halton Region will take every reasonable precaution to avoid disruption to water and wastewater service to residents and businesses and will provide 48 hour notice for any scheduled and required service shut downs.
Tree removal	If tree removal is required, Halton will ensure that the tree preservation policies are followed in accordance with the Tree-Canopy Replacement Policy on Regionally Owned Lands (LPS31-08).

7.1.6 Notice of Completion

A Notice of Completion was published on April 26, 2018 and May 3, 2018 in the Milton Canadian Champion local newspaper to notify the public that this Project File was being placed on the “public record” for the required 30-day public and agency review period. This notice satisfies the final consultation point of contact in the Municipal Class EA process. A copy of this notice was mailed to individuals and organizations on the most recent mailing list. A copy of the notice and mailed letters are provided in Appendix A.

During the review period, the Municipal Class EA entitles any person who has significant concerns, which cannot be resolved, to request the Minister of Environment and Climate Change to change the status of the project from a Municipal Class EA to an Individual EA by issuing a Part II Order under the EA Act. If there are no Part II Order requests, and following the receipt of other required approvals, the proposed wastewater forcemain may proceed to design and construction.

7.2 Agency Consultation

Consultation with review agencies is also essential to the communication component of the Municipal Class EA process. Agencies were consulted in an effort to gain valuable information they may have, obtain their feedback on alternatives and how to best proceed with the project. Relevant agencies were notified of project commencement, PIC and project completion. A Technical Advisory Committee (TAC) was formed including Conservation Halton and Halton Region.

The following agencies were circulated Notices related to this Municipal Class EA:

- Canadian Environmental Assessment Agency.
- Fisheries and Oceans Canada.
- Environment Canada.
- Health Canada
- Indigenous and Northern Affairs Canada
- Ministry of Agriculture and Food.
- Ministry of the Attorney General – Aboriginal Legal Issues Office
- Ministry of Environment and Climate Change
- Ministry of Indigenous Relations and Reconciliation
- Ministry of Municipal Affairs & Housing
- Ministry of Natural Resources and Forestry, Aurora District.
- Ministry of Tourism, Culture and Sport
- Ministry of Transportation
- Various Utilities – Telus, Bell Canada, AT&T Canada, Cogeco Cable Systems Inc., Rogers Cable Communications Inc., Milton Hydro Distribution Inc., Hydro One Inc., Union Gas Limited
- Halton District School Board and Halton Catholic District School Board
- Town of Milton

- Conservation Halton*

* Conservation Halton has actively participated in this project as described in Section 7.2.1. Comments received from other agencies include the following:

Ontario Ministry of the Environment and Climate Change (MOECC)

- In response to the Notice of Commencement and PIC, a letter was received from the MOECC Central Region Technical Support Section, dated November 25, 2016. The letter provided preliminary comments and a document outlining "Areas of Interest" to provide guidance regarding the ministry's interests with respect to the Municipal Class EA process. Additional guidance was also provided with respect to the Ministry's internal protocol for Aboriginal consultation. It was noted that this internal protocol is in the process of being updated and the sections of the letter pertaining to the Aboriginal consultation are no longer relevant. The MOECC provided a list of three (3) Aboriginal communities that should be notified of the project and participate in consultation activities. The 3 listed communities were all previously included on the consultation list. A copy of the letter can be found in Appendix A.
- A draft copy of the Project File Report was submitted to the MOECC for review, with no comments received.

Ontario Ministry of Natural Resources and Forestry (MNRF)

- In response to the Notice of Commencement and PIC, email correspondence was received from the MNRF advising that the Study area contains habitat for Redside Dace, Silver Shiner, and potentially other species at risk. MNRF was requested to be kept involved in the project as the Municipal Class EA moves forward. A copy of the email correspondence can be found in Appendix A.

Canadian Environmental Assessment Agency (CEAA)

- In response to the Notice of Commencement and PIC, a letter was received from the CEAA, dated November 18, 2016. The letter outlined the focus of the Canadian Environmental Assessment Act, 2012 (CEAA 2012) being on projects that have the potential to cause significant environmental effects in areas of federal jurisdiction and noted that based on the information provided in the

Notice of Commencement and PIC, this project does not appear to meet the criteria for the CEAA 2012. A copy of the letter can be found in Appendix A.

7.2.1 Conservation Halton (CH)

Initial work on this project began in 2016 with the development of alternative servicing solutions. After an initial review and analysis of all the available information, discussions were held with key internal Region staff and external stakeholders to discuss the proposed alternatives. This included discussions with Conservation Halton who were the key stakeholder in the project due to the location of the Fulton WWPS and proposed forcemain alignments in close proximity to the Sixteen Mile Creek watercourse and Regulated Areas.

Extensive consultation occurred between Halon Region and CH via in person meetings, emails, letters and phone calls. Issues raised throughout this Study by Conservation Halton are summarized in Table 6 below.

Meetings with CH took place on the following dates:

- May 30, 2016
- December 12, 2016
- September 25, 2017

Minutes of these meetings are available in Appendix A, along with other correspondence with CH. A summary of comments/ concerns raised by Conservation Halton is provided in Table 6 below.

Table 6 Summary of Comments from Conservation Halton

Comment	Halton Region Response
The Sixteen Mile Creek may undergo some naturalization in the vicinity of the Milton WWTP and Fulton Street Pumping Station in the future, so any alternatives would need to allow sufficient flexibility for modifications to the concrete channel of the Creek.	The project team included this information within the evaluation of alternatives for all alternatives that may impact on the future Creek alignment.
Concerns with the Alternative A alignment as it follows the north-	The project team noted the concerns expressed by CH with regards to a portion of Alternative A being located

Comment	Halton Region Response
east bank of the Creek for a portion of its length and may impact the future work necessary for the Creek naturalization. Suggestion to consider following the alignment of the existing gravity sewer through the Evergreen Cemetery instead of along creek bank.	within the meander belt and valley wall erosion hazards of the Sixteen Mile Creek. The project team considered the potential modification of Alternative A to avoid the proximity to the Creek by routing the alignment through the Evergreen Cemetery lands alongside the existing wastewater gravity sewer. The option was eliminated from further consideration due to a lack of space within the existing easement and potential construction complications within the cemetery property. Additionally, potential social implications of construction within a cemetery property are expected to be high. Based on CH comments, two criteria were modified to be scored as a major risk (red) for Alternative A, including 'Impact to Sensitive Features and Regulated Areas', and 'Approval Requirements' related to obtaining CH permits for construction of the preferred alternative.
The method of construction for crossing the Sixteen Mile Creek. It was identified that an easement would need to be negotiated with Conservation Halton in order to construct the crossing of the Sixteen Mile Creek.	Halton Region has committed to utilizing trenchless methods for this creek crossing. Exact location and trenchless methods to be determined during the preliminary and detailed design phases, at which time Conservation Halton will be consulted regarding easements and construction methods.
Ensure protection of any natural habitats and Species at Risk known to exist in the Study area.	A Natural Environment Study was completed as part of this Municipal Class EA, and all known species have been documented. Additional consultation will be conducted with MNRF during the design stage to ensure all habitats and species are adequately protected.
Consider the regulated Meander Belt area of the Sixteen Mile within the natural environment evaluation.	As specific mapping was not available for the meander belt for the Sixteen Mile Creek, the project team obtained additional information from CH in order to estimate the extent of the meander belt and ensure that this is addressed within the evaluation of alternatives.

Ensure that there are no negative impacts due to the closed landfill at the current location of Brian Best Park along Commercial Street that was previously operated by the Town of Milton and closed in 1974.	Halton Region will ensure that a plan is in place for proper management and disposal procedures for any impacted materials.
A portion of the proposed forcemain alignment is within the floodplain of the Sixteen Mile Creek and it will be necessary to restore the area to proper elevation as part of the construction project.	Halton Region will continue consultation with CH during the design phase to ensure that concerns related to the floodplain are adequately addressed.

7.3 Indigenous Communities Consultation

Indigenous Communities were consulted to build meaningful dialogue with Indigenous Communities and government agencies, and to ensure consultation is satisfied through this Municipal Class EA process.

At the onset of the project, the Study team consulted the guidelines available on the Ontario Ministry of Indigenous Relations and Reconciliation (MIRR) website to determine Indigenous Communities consultation requirements (*https://www.ontario.ca/page/ environmental-assessments-consulting-indigenous-communities)*. The project team used the Indigenous and Northern Affairs Canada (INAC) Aboriginal and Treaty Rights Information System (ATRIS) to help identify which Indigenous Communities may be interested in or potentially impacted by the proposed project. Additionally, the project team contacted MIRR, INAC and Metis Nation of Ontario (MNO) to request feedback on the list of Indigenous Communities generated using ATRIS. A response was provided from INAC, and as a result 4 additional Indigenous Communities were added to the project contact list.

By searching a 100 km radius around the Town of Milton in ATRIS, and with the additional input of INAC, the following Indigenous Communities were included on the project contact list:

- Mississaugas of the New Credit First Nation
- Six Nations of the Grand River

- Haudenosaunee Confederacy Chiefs Council
- Metis Nation of Ontario
- Chippewas of Kettle and Stony Point
- Chippewas of the Thames First Nation
- Chippewas of Georgina Island
- Chippewas of Nawash First Nation

Letters were mailed to all communities to advise of the project and notify of the PIC. No responses were received from any of the Indigenous Communities. Follow up phone calls were also made to confirm receipt of the notice and letter and the need for a face-to-face consultation meeting. There were no concerns identified through the phone conversations.

A detailed list of Indigenous Communities contacted, and a consultation log documenting all correspondences are included in Appendix A.

8. Preferred Alternative Solution

Following the Public Information Centre and taking into account the comments received from the public and review agencies, the preferred solution and timing of the required works were reviewed.

A detailed analysis was completed to re-evaluate the timing for construction of the second WWFM. It was determined that since the existing WWFM was installed recently in 2014, there is not an immediate need for the second WWFM for redundancy purposes in the near-term. However, the second WWFM will still be needed in the long term for redundancy and capacity purposes. An assessment was therefore completed to evaluate the capacity of the existing WWFM to convey current and future projected wastewater flows, and specifically, to evaluate when a second WWFM would be required to provide additional flow capacity. The capacity of the existing WWFM was confirmed previously through a hydraulic analysis completed by R.E. Poisson Engineering Inc. (*Fulton St. Wastewater Pumping Station and Forcemain Projects S-2755A and S-2756A Pre-Design Report,* dated November 2012). The Region's updated wastewater forecast data for the Milton drainage area was used to calculate future projected flows from growth and

decommissioning of the Milton WWTP. Comparing the future projected flows to the existing WWFM capacity, it was determined that the existing WWFM has sufficient capacity to convey future flows until at least 2027. Based on this assessment, it was recommended that the construction timing for second WWFM proceeds no earlier than 2027.

This updated timing presents several opportunities; no immediate construction impacts along Commercial Street, explore alternative construction methods and phasing-in the capacity increase over time to avoid operational issues. The MCEA Study therefore recommended completing the forcemain works in two phases:

- Phase 1: Connect the existing 600 mm forcemain from its current location on Commercial Street to the Fulton Wastewater Pumping Station via a crossing under Sixteen Mile Creek, anticipated to be completed in the 2020 timeframe.
- Phase 2: Construct a second 600 mm wastewater forcemain and Sixteen Mile Creek Crossing from the Fulton Wastewater Pumping Station along the Commercial Street municipal right of way to the intersection of Derry Road and Santa Maria Boulevard, anticipated to be completed in the 2027 timeframe.
- Decommissioning the Milton WWTP may proceed as planned in the 2021 timeframe.

However, the timing for the design and construction of Phase 2 of the project, and the size of the second WWFM, will be reviewed and verified as part of the next update to the Water and Wastewater Master Plan.

Figure 9 shows the preferred alignment for the forcemain from Fulton WWPS to the HUSP manhole at Santa Maria Boulevard and Derry Road.

Figure 9 Preferred Forcemain Alignment

9. Implementation

The sections below summarize the commitments and/or mitigation measures that will be undertaken during the implementation of the preferred alternative as well as approvals that will be required to implement the preferred alternative.

9.1 Commitments and Mitigation Measures

As described in Section 8, Halton Region plans to start construction of a Sixteen Mile creek forcemain crossing in 2020 to connect an existing 600mm forcemain to the Fulton WWPS. This construction project is planned to take approximately one to one and a half years to complete. Construction of the second crossing of Sixteen Mile Creek and new 600 mm forcemain along Commercial Street is planned to commence in 2027, subject to confirmation through the next Water and Wastewater Master Plan Update.

Table 7 provides a description of potential impacts associated with design, construction and operation of the proposed preferred alternative, and measures the Region will undertake to mitigate possible impacts.

Table 7 Summary of Mitigation Measures and Commitments

Project Phase / Topic	Summary of Mitigation Measures and Commitments by Halton Region
Design Phase	
Design of forcemain along Commercial Street	• The exact location and construction methods to be utilized for the Commercial Street forcemain will be finalized during detailed design in consultation with the utility companies, and in consideration of existing buried services along the right-of-way; and • Potential options for trenchless construction will be investigated as part of the detailed design process to mitigate impacts to residents and businesses due to construction.
Design of forcemain crossing the Sixteen Mile creek	The exact construction methods will be finalized during detailed design. Construction using trenchless techniques will be used for the two creek crossings to avoid any “in-water” works. Mitigation measures to be considered more fully in the detailed design stage once the specific construction methods are confirmed include: • Use construction windows as specified by Conservation

Project Phase / Topic	Summary of Mitigation Measures and Commitments by Halton Region
	Halton/Ministry of Natural Resources and Forestry related to identified species at risk; • Timing of the crossings for periods of low flow (e.g., July, August, and early September) and outside of fish spawning seasons; • Notify Conservation Halton and Ministry of Natural Resources and Forestry at the start and completion of the crossing and if there are fisheries concerns; and • Control any downstream sediment to the lowest level practically achievable during construction using Ministry of Natural Resources and Forestry's' generic sediment control plans or recommendations from ministry staff. Develop and administer an Environmental Management Plan to satisfy sediment control as defined by regulatory agencies. Specific restrictions regarding the level of suspended sediment concentrations must be implemented. It is expected that the level of total suspended solids (TSS) should not exceed 25 mg/L above background conditions. Specific requirements for sediment control should be determined in consultation with Conservation Halton during the design phase.
Approvals from agencies	During the detailed design process, Halton Region is committed to working directly with relevant agencies to ensure that their comments received during the preparation of this Project File are addressed and that the design of the proposed forcemain meets their requirements for approvals and permits. Halton Region will work closely with all regulatory agencies in an effort to obtain required permitting prior to commencement of construction work. Agencies with which Halton Region will consult include: • Conservation Halton re: watercourse crossings; Development, Interference with Wetlands and Alterations to Shorelines and Watercourses permit per Ontario Regulation 162/06, and potentially additional permit(s) for the portions of the forcemain along Commercial Street subject to refinement of the hazard limits; • Ministry of Natural Resources and Forestry (MNRF) re: project compliance under the Endangered Species Act (ESA); • Ministry of Tourism, Culture and Sport re: Stage 2

Project Phase / Topic	Summary of Mitigation Measures and Commitments by Halton Region
	Archaeological Assessment; • Ministry of Environment and Climate Change re: amendment to ECA for Milton WWTP and Fulton Street Pumping Station and potential for Permit to Take Water (PTTW); • Local utilities re: works within the municipal rights of way; and • Town of Milton re: Municipal Consent Permit and Road Cut Permit for works along Commercial Street.
Construction Phase	
Communication with Residents and Businesses	Halton Region will maintain the following procedures in place to minimize and mitigate potential impacts to residents and businesses as much as possible. • Maintain good communication through notices, providing contact information and a PIC will be held prior to construction; • Maintain access to driveways and for emergency services, Canada Post, couriers & collection of solid waste & products for recycling; • Restore disturbed areas to pre-construction conditions or better; and, • Minimize duration of construction and/or stage construction and investigate the potential for conducting construction of the forcemain using trenchless technologies. The feasibility of this construction method will be invested further during the detailed design phase.
Construction monitoring	The monitoring measures will ensure accountability on the part of the construction team. In addition, monitoring provides useful information on impacts and mitigation measures for future projects. The primary objectives of the construction monitoring program are to: • Ensure compliance with contractual agreements dealing with the environmental construction practices specified for the project; and, • Assess the overall performance and effectiveness of the proposed mitigating measures, making modifications if and when required. The key operations to be monitored during the construction period may include:

Project Phase / Topic		Summary of Mitigation Measures and Commitments by Halton Region
		• Traffic and safety control • Protection of vegetation • Equipment fuelling, maintenance and storage • Impacts upon adjacent lands • Noise and vibration control activities • Dust and particulate control activities • Clearing of rights-of-way • Site restoration • Stability and condition of the concrete lined channel pre, post and during construction (completion of a condition assessment – inspection/photo inventory prior to construction) Conservation Halton Mitigation Measures - Region will implement vibration monitoring during the construction of the Sixteen Mile Creek crossing to monitor potential impacts to the concrete channel underlying the creek.
Habitat Mitigation	Creek crossings	Impact to aquatic habitat or fisheries is expected to be mitigated by the use of trenchless construction methods. Any potential mitigation requirements will be refined during detailed design in consultation with Conservation Halton and the Ministry of Natural Resources and Forestry. While using such methods as tunneling to avoid creek bank impacts, there remains a need for awareness and caution with regard to vegetation clearing and restoration as well as risk of frac-out.
	Forcemain along Commercial Street	Based on the results of wildlife screening, measures to avoid disruption to identified species and their habitat in the area of construction could be developed during detailed design. For example, vegetation clearing will be assessed with respect to grading limits, tree preservation plan, and development of site-specific mitigation techniques. Further information on natural environment mitigation measures is provided in the Natural Environment Report in Appendix B (refer to Section 6.0, page 33).
Erosion and Sediment Control		The potential for erosion and sediment generated through the construction of both the Commercial Street forcemain, as well as the forcemain crossings of Sixteen Mile Creek can have impacts on both terrestrial and aquatic life and habitats. Halton Region will implement erosion & sediment control measures in accordance with Conservation Halton's guidelines & MOECC's Guideline B-6 (Guidelines for Evaluating

Project Phase / Topic	Summary of Mitigation Measures and Commitments by Halton Region
	Construction Activities Impacting on Water Resources). Particular attention will be paid to any sediment or materials removed from the area along the Commercial Street alignment known to be the location of a closed landfill, at the current location of Brian Best Park. This will be detailed in an Environmental Management Plan that is to be part of detail design.
Construction period (time, season)	• Specific recommendations from Conservation Halton and other relevant agencies will be adhered to in compliance with permits and the detailed design; • Sixteen Mile Creek is managed by Conservation Halton as a coldwater system and therefore no in-water works are allowed between September 15 and June 30; and • Residents who may be affected will be notified in advance.
Traffic	Truck traffic will increase during the construction of the forcemain as equipment and materials are delivered and/or removed. • Work will be carried out from Monday to Friday during normal daylight working hours to minimize disruption to local residents. Exemptions shall follow appropriate procedures defined by local noise-bylaws; and • Should road traffic be disrupted during the construction of the forcemain, traffic diversions will be implemented as needed to ensure impacts on traffic are short term and that traffic can access properties.
Driveway access	Street and driveway access may be limited during short periods of time while construction occurs. • Residents and road users will be directed to temporary local road access during this time. In addition, measures should be put in place to ensure that every driveway has emergency access, for example in the form of gravel or steel plating, in the case of emergency; and • Driveway access will be maintained during construction and if necessary a temporary access will be provided.
Noise and vibration	Construction of the forcemain is expected to generate a minimal amount of noise and vibration typical for standard construction activities. All vehicles and construction equipment will be equipped with effective muffling devices and operated in a fashion so as to minimize noise in the project area.

Project Phase / Topic	Summary of Mitigation Measures and Commitments by Halton Region
	Halton Region will commit to adhere to the Town of Milton's noise bylaw (133-2012) for the construction along the forcemain including limiting hours of construction and days of construction. During construction, if shoring installation is contemplated, a vibration Study may be considered.
Dust and mud	Construction best management practices are to be used to control dust and mud and to control dust on site and to prevent dust from transferring off-site. The mitigation methods may include: • Dust control measures such as the application of water or calcium chloride will be undertaken as necessary; • Public roadways will be kept clean and free of mud by regular street cleaning; and • Trucks will be regularly washed to control the transfer of dust from the construction site to off-site areas. Any mud tracking onto the forcemain construction area roads will be cleaned by the contractor on a regular basis.
Road rehabilitation	• Temporary road restorations shall be co-ordinated with the Town of Milton and established during detail design; and • Restore disturbed areas to pre-construction conditions or better.
Post Construction and Operation Phase	
	In terms of the post-construction operational phase, there are anticipated to be no impacts to the community.

9.2 Notice of Completion

At the conclusion of Phase 2 of the Municipal Class EA process for Schedule B projects, a Project File is prepared and a Notice of Completion is issued. The Project File report (PFR) for the New Wastewater Forcemain from Fulton Street Pumping Station to Derry Road and Santa Maria Boulevard in the Town of Milton (i.e. this report) documents the decision making process during the study. The Notice of Study Completion of this Municipal Class EA Study (issued on April 26, 2018) notifies members of the public and agencies that the PFR would be available for public review for thirty day period. The PFR was made available for public review at the following locations during normal business hours:

Clerk's Department
Regional Municipality of Halton
1151 Bronte Road
Oakville, ON L6M 3L1
Tel: (905) 825-6000
Monday–Friday: 8:30 a.m. – 4:30 p.m.

Milton Public Library
1010 Main Street East
Milton, ON L9T 6H7
Tel: (905) 875-2665
Monday- Thursday: 9:30 a.m.–9:00 p.m.
Friday: 9:30 a.m. – 5:00 p.m.
Saturday: 9:30 a.m. – 5:00 p.m.
Sunday: 1:00 p.m.– 5:00 p.m.

Clerk's Department
Town of Milton
150 Mary Street
Milton, ON L9T 6Z5
Tel: (905) 878-7252
Monday–Friday: 8:30 a.m. – 4:30 p.m.

Written comments on this Project File should be submitted to:

Mr. Sanjeev Oberoi, P. Eng. PMP

Project Manager

Regional Municipality of Halton

1151 Bronte Road

Oakville, ON L6M 3L1

Phone: (866) 442-5866 or (905) 825-6000 Ext. 7921

Fax: (905) 825-8822

Email: sanjeev.oberoi@halton.ca

In accordance with the Municipal Class Environmental Assessment (2000, as amended in 2007, 2011 & 2015), if no concerns are expressed by the conclusion of the specified review period, Halton Region may proceed with the design and construction of Phase 1 of the project as described in this Project File.

9.3 Information on Part II Order Requests

The Municipal Class EA process includes an appeal provision to change the status of a project from being subject to the Municipal Class EA process to being subject to an Individual Environmental Assessment as per Part II of the Ontario EA Act. The latter requires the submission of an EA document to the Minister of the Environment and Climate Change (MOECC) for government review and approval.

If concerns regarding a project cannot be resolved in discussions with the proponent, then members of the public, interest groups, Indigenous Communities,

or technical review agencies may request the Minister of the Environment and Climate Change, by order, to require a proponent to comply with Part II of the EA Act before proceeding with a proposed undertaking which has been subject to Municipal Class EA requirements. The Minister of the Environment then decides whether to deny the request, refer the matter to mediation or require the proponent to comply with Part II of the EA Act. Additional information regarding this appeal process may be obtained from the Halton Region website (http://www.halton.ca/EAprojects).

9.4 Agency Approvals

Compliance with the Environmental Assessment Act and the Municipal Class Environmental Assessment does not preclude Halton Region from additional agency approvals for the recommended project. Following the completion of the Class Environmental Assessment process, Halton Region must undertake discussions with relevant agencies to ensure that all applicable approvals are received prior to implementing projects.

The following list highlights approvals which may be necessary to carry out the proposed project. Additional approvals may become applicable or be specified by affected agencies at any time.

9.4.1 Town of Milton

Halton Region will require approvals from the Town of Milton for road works within Commercial Street right of way which is within the Town of Milton boundary. Permits expected to be required include:

- Municipal Consent Permit;
- Road Cut Permit.

9.4.2 Ministry of Natural Resources and Forestry (MNRF)

The Natural Environment Report (see Appendix B) provides examples of potential mitigation approaches for natural features. The Natural Environment Report notes that a number of Species at Risk (SAR) were identified for the project Study area, with the primary concern being related to aquatic species within the Sixteen Mile Creek. Based on the planned trenchless construction method for the creek crossing portion of the work, it is anticipated that impacts to SAR will be mitigated, however,

once more detail is available regarding the construction methods during detailed design, further consultation with the MNRF will be necessary to ensure project compliance under the *Endangered Species Act (ESA)*.

Conservation Halton noted that the current proposal to install a new twinned 600 mm wastewater forcemain beneath Sixteen Mile Creek and within the floodplain of Sixteen Mile Creek has the potential to impact the habitat of Redside Dace and Silver Shiner, a species at risk listed as endangered and threatened, respectively, under the *ESA*. Pursuant to the *ESA*, the Ontario Ministry of Natural Resources and Forestry (OMNRF) has recently made changes to the way that projects potentially impacting endangered species populations or habitat are being reviewed and thus, the MNRF should be screening this project. CH Aquatic ecology staff have flagged this file with the MNRF as part of the ESA screening process. Inquiries regarding the *ESA* screening process and required approvals should be directed to MNRF.

Approvals required:

+ Consultation with MNRF during detailed design

9.4.3 Fisheries and Oceans Canada (DFO)

The new crossing of Sixteen Mile Creek will require consultation with DFO specific to aquatic SAR (Redside Dace and Silver Shiner). Redside Dace has recently (May 2017) been afforded protection under Schedule 1 of the federal Species at Risk Act (SARA) as an endangered species. Protection under SARA should be revisited at detailed design and a DFO Request for Review should be initiated to ensure project compliance with SARA protection in place at that time. As well, once the construction design details are confirmed during the detailed design phase for the forcemain across Sixteen Mile Creek, project works can be assessed to determine whether they can adhere to the DFO ‘Measures to avoid causing harm to fish and fish habitat including aquatic species at risk’, and thereby comply with the Fisheries Act.

9.4.4 Ministry of the Environment and Climate Change (MOECC)

As part of the approval process with the MOECC, it is anticipated that discussions will be held to establish the basis of design and to identify approval requirements.

Permits / Approvals required:

- Amendment to the existing Environmental Compliance Approval (ECA) for the Milton WWTP site to reflect the changes to the Fulton WWPS and the addition of the second forcemain along Commercial Street.
- Permit to Take Water (PTTW) – The need for a permit to take water will be determined during detailed design, upon the completion of further geotechnical and hydrogeological work to determine the level of water taking required for construction.

9.4.5 Conservation Halton (CH)

Ontario Regulation 162-06, Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permit

Approvals from Conservation Halton will be sought for a permit to comply with this regulation.

Vegetation Clearing

Since the extent of vegetation clearing will not be determined until the detailed design phase, a tree preservation plan is likely to be required by Conservation Halton as part of the detailed design stage. Conservation Halton's landscaping and tree preservation guidelines, and associated appendices should be consulted for further assistance in this regard at detailed design.

See http://www.conservationhalton.on.ca/ShowCategory.cfm?subCatID=898.

Site Restoration

Specific restoration areas will be identified during detail design and will be addressed using the "GTA Conservation Authorities Erosion and Sediment Control Guideline for Urban Construction" (find these guidelines at: http://www.sustainabletechnologies.ca)

Halton Region will also need to negotiate the acquisition of easements for the Sixteen Mile Creek crossing to locate the 600 mm forcemains crossing the Sixteen Mile Creek. Discussions on this location will be held and finalized through the preliminary and detailed design process. Discussions with Mr. Niall Lobley, Manager – Risk and Land Holdings Services, Conservation Halton, will be required prior to the detailed design phase for the forcemain crossings.

9.4.6 Ministry of Tourism, Culture and Sport

As the result of Alternative B being identified as having potential for archaeological resources, the Region is committed to conduct a Stage 2 archaeological assessment and to comply with the Ministry of Culture requirements for archaeological resources.

9.4.7 Utilities

Detailed plans and specifications must be submitted to the local office of the hydro authority and other utilities for review and approval prior to construction, particularly for the congested alignment within the Commercial Street right-of-way.

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Mississauga, ON L4V 1W5

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