

Whitby Water Supply Plant Expansion

Municipal Class Environmental Assessment Addendum No. 2 Report

Regional Municipality of Durham

60322759

April 2026

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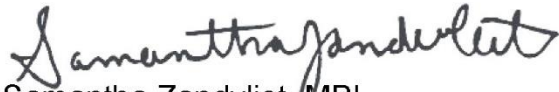
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Revision History

Revision #	Date	Revised By	Revision Description
0	September 30, 2022	-	Draft report circulated to Region
1	February 9, 2023	SZ, KG, MG	Draft report addressing Region's comments
2	March 31, 2023	SZ, KG, MG	Final draft report addressing Region's comments
3	April 25, 2023	SZ	Final report for 30-day review
4	April 27, 2026	SZ	Final report after 30-day review

Executive Summary

Background

In 2005, the Regional Municipality of Durham (the Region) completed a Municipal Class Environmental Assessment study (**Appendix A**) that recommended an expansion of the Whitby Water Supply Plant. The proposed expansion represents a doubling of the current Whitby Water Supply Plant treatment capacity from 109 ML/day to 218 ML/day which will accordingly address planned growth within the Town of Whitby in addition to service areas within neighbouring local municipalities. The 2005 study evaluated on-site and off-site Whitby Water Supply Plant expansion options and concluded that the preferred solution was to expand the Whitby Water Supply Plant on the north side of Water Street (270 Water Street) directly across from the existing Water Supply Plant.

In 2016, the Region retained AECOM Canada Ltd (AECOM) to complete a Municipal Class Environmental Assessment Addendum (**Appendix B**) to the 2005 Whitby Water Supply Plant Municipal Class Environmental Assessment study which proposed expanding the existing Whitby Water Supply Plant all within the existing Water Supply Plant property limits on the south side of Water Street. The Municipal Class Environmental Assessment Addendum was cleared – approved in early 2018 and was also accepted by Central Lake Ontario Conservation Authority, subject to completion of an Environmental Impact Study (EIS) for the 270 Water Street property.

Subsequently, the Town of Whitby (the Town) expressed concerns with the impacts of the Water Supply Plant expansion to the Whitby Waterfront and two Design Charettes were conducted in 2018 with the Town to explore options for mitigating these impacts. The Design Charettes were guided by input from a number of technical experts including architects, land use planners, AECOM project team and representatives from the Region and the Town.

The Design Charettes focused on potential Water Supply Plant facility layout alternatives and building massing with the objective of improving the public realm around the Water Supply Plant, explored options for mitigating impacts and identified new opportunities to pursue as the basis for a revised design and approach which included:

- Relocation of the Water Supply Plant's proposed Standby Power Building and Electrical Substation to the Town's property on the north side of Water Street (270 Water Street). Note that for the Standby Power Building and Electrical Substation work, it will now be referred to as the Whitby Water Supply Plant Energy Centre.

- Relocation of one of its new proposed Water Supply Plant buildings from the east side of the Water Supply Plant near Kiwanis Heydenshore Park to the inner spine of the current Water Supply Plant facility.
- Provision for expanded public parking on an interim basis during construction and upgraded permanently after the Water Supply Plant Expansion project is completed (also identified in the 2018 Municipal Class Environmental Assessment Addendum 1).
- A laydown area for the Water Supply Plant Expansion General Contractor to facilitate the construction of the works (also identified in the 2018 Municipal Class Environmental Assessment Addendum 1).
- Potential for Town Redevelopment (i.e. Parks and Recreation Maintenance/Operations Yard) on the 270 Water Street property.
- An emphasis on better architecture (massing, materials) for all new facilities to coincide with the Town's vision for the future improvements to the Whitby waterfront area and public realm.

The decision to relocate the proposed Energy Centre to the 270 Water Street property accordingly triggered the need for a second Municipal Class Environmental Assessment Addendum, as addressed by this report. Since the Charette, there have also been other updates to the project description, development of a site plan for the 270 Water Street property, an upgraded treatment process (south side of Water Street) including associated construction footprints, and Lake Ontario shoreline improvements, protection and erosion measures.

The purpose of this report is to document the addendum planning process, which includes the review of the above noted changes to the project description and its implications since the previous 2018 addendum.

Municipal Class Environment Assessment Process

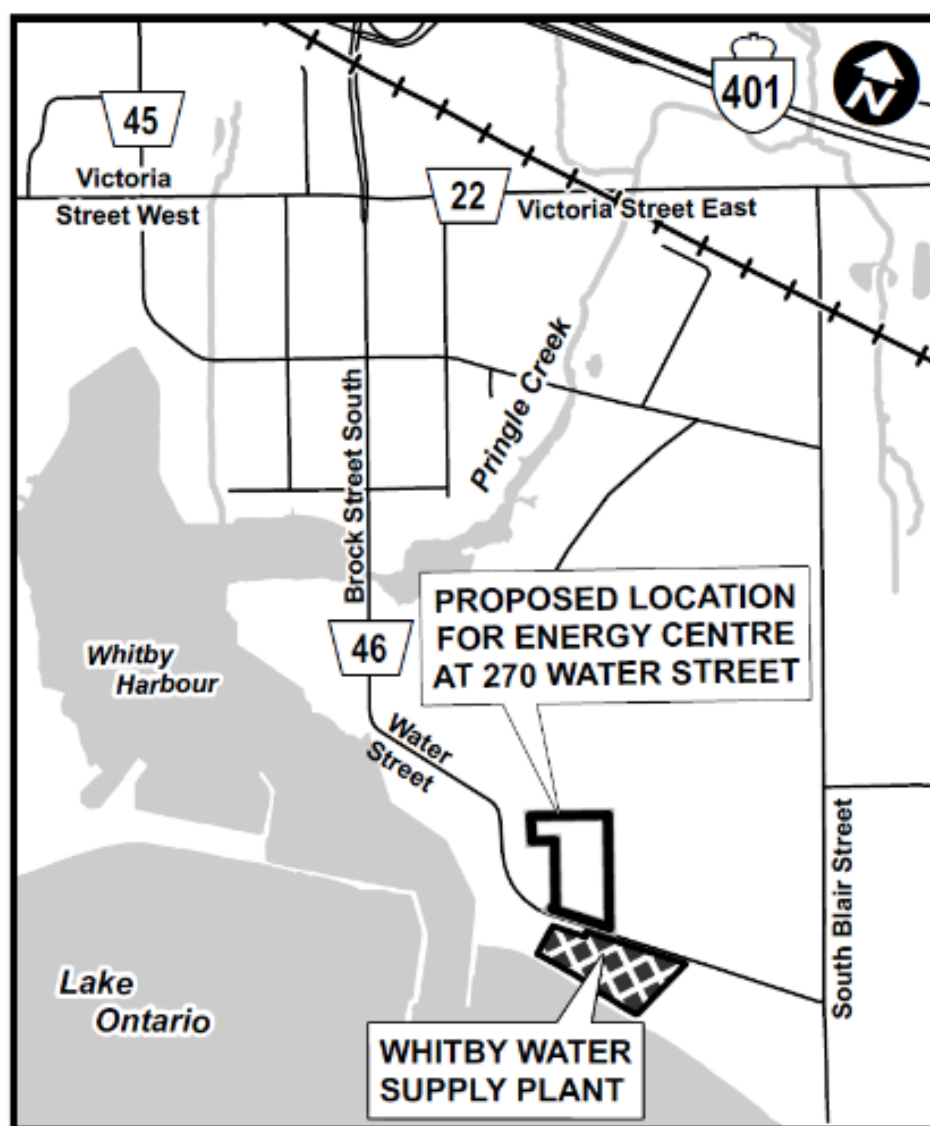
The original 2005 Environmental Study Report was completed as per the October 2000 Municipal Engineers Association Municipal Class Environmental Assessment document fulfilling the requirements for a Schedule C project at that time. The first 2018 addendum was completed to meet the planning and design process as defined in the amended 2015 Municipal Class Environmental Assessment document while this current addendum process is being completed to meet the planning and design process as defined in the March 2023 Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011, 2015 and 2023).

Interested persons may only provide written comments on the planning and decision making process since the approval of the 2018 addendum. This includes the proposed changes to the approved project as documented in the original Environmental Study Report and the 2018 Municipal Class Environmental Assessment Addendum No. 1. The proposed changes are described further below in this Executive Summary and in **Section 3.2** of this report.

Study Area

The existing Whitby Water Supply Plant and 270 Water Street property, which is the proposed relocation of the Energy Centre are shown in **Figure ES-1**.

Figure ES-1. Study Area



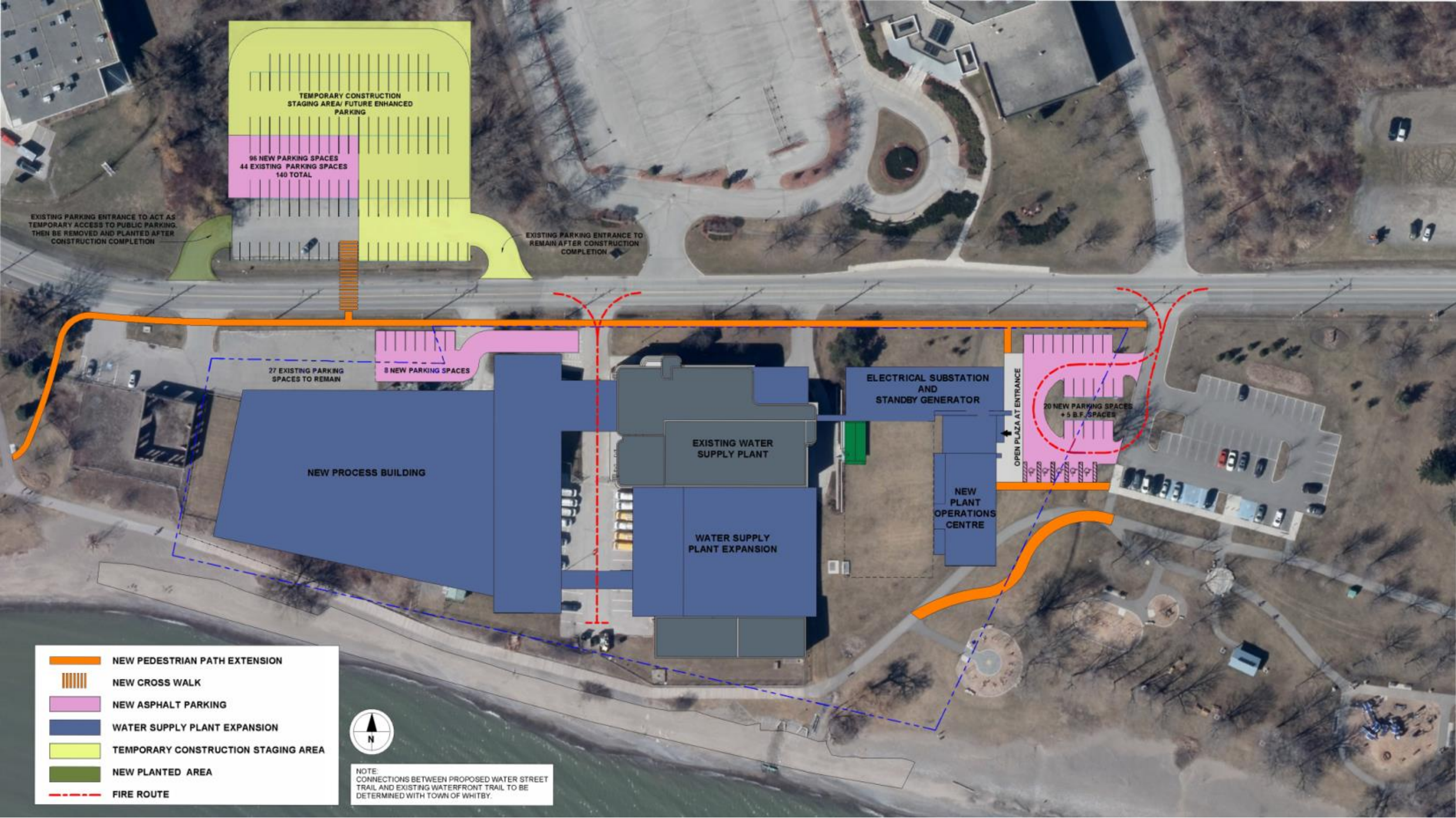
Description of the Approved Project

As per 2018 Municipal Class Environmental Assessment Addendum, the approved project description included developing the Whitby Water Supply Plant expansion, including the Energy Centre (referred to as the electrical substation and standby generator building and new plant operations centre in the 2018 addendum), on the south side of Water Street.

Figure ES-2 shows the 2018 staging area and parking layout with the actual number of parking spots to be subject to the results of the Environmental Impact Study (completed as part of this Environmental Assessment Addendum). The 2018 addendum identified the 270 Water Street property for use as contractor lay down area for construction staging and Water Supply Plant employee and public parking (during and after construction). Proposed parking on the south side of Water Street identified the integration of the Plant Operations Building Parking with Heydenshore Kiwanis Park parking lot.

The south side of Water Street also identifies the realignment/relocation of the existing Waterfront Trail (east side of new operations building) in addition to a temporary realignment of the trail from the lake to allow construction and ensure public safety.

Figure ES-2. Staging Area and Layout (2018)



Proposed Changes to the Approved Project

As shown in **Figure ES-3**, the conceptual Site Plan rendering shows the proposed changes to the north side of Water Street (270 Water Street) from that of the 2018 layout:

- Relocation of the Energy Centre from south of Water Street to the north-west corner of 270 Water Street.
- New electrical substation that is required by Elexicon to support planned local Town of Whitby development, including the Water Supply Plant. To be located just east of the Energy Centre to limit short-term construction impact and long-term visual impact to the Whitby Waterfront.
- Potential future Town of Whitby Redevelopment, which is being considered to house a Parks Facilities Maintenance/Operations Yard
- Updated layout for parking, which now includes both secured and public parking. Secured parking will be shared by the Region/Town of Whitby and is an operational requirement to protect both vehicle fleet systems. At the time of this publication, there are 88 public parking spots proposed, at minimum, at 270 Water Street. This number and the final layout of the parking lot are to be confirmed and approved by the Town at the detailed design phase of the Project.
- In addition to the above, specific to the south side of Water Street, the location of the new operations centre and Waterfront Trail relocation and realignment has changed from what is shown in the 2018 Environmental Assessment Addendum report.

The proposed development timing and staging for the 270 Water Street site is described below.

- 2024 to 2025 – Site preparation and contract completed for the Energy Centre, Elexicon Substation, site clearing and grading for contractor laydown and temporary public parking
- 2025 to 2030 – Site to be used temporarily for public parking and a contractor laydown area during the construction phase of the Whitby Water Supply Plant expansion
- 2030 and beyond – Site to be converted to a permanent public parking lot, with a secured parking lot for Region and Town fleet vehicles and a vacant portion of the site that may be Redevelopment by the Town of Whitby (i.e. a Park's Department Maintenance/Operations Facility)

The detailed interim and ultimate site plans for 270 Water Street are described in **Sections 3.2.1 and 3.2.2** of this report.

Figure ES-3. Whitby Water Supply Plant Conceptual Rendering at Completion



Review of Environmental Setting

The anticipated implications of relocating the Energy Centre to the 270 Water Street property where only construction staging and parking was previously proposed has been summarized according to the aspects of the environment, which includes the natural, socio-economic, cultural, and technical environments. The changes to the waterfront trail alignment have also been considered, where applicable.

To address the natural environment implications, the following supporting studies were undertaken for 270 Water Street:

- Environmental Impact Study (Beacon, 2023)
- Stormwater Management Strategy

The socio-economic environment was reviewed from a land use and cost perspective. Climate change and the cultural heritage environment was also considered. There were no changes to the cultural environment and minor changes to technical environments from that of the 2018 addendum.

Potential Environmental Impacts and Mitigation Measures for the Proposed Changes

Based on the proposed changes and associated implications, enhanced mitigation and compensation measures are needed to address both known and potential environmental impacts related to the relocation of the Whitby Water Supply Plant Energy Centre from the south side to the north side of Water Street. Construction is expected to have varied environmental impacts. The proposed Energy Centre development will require the removal of the meadow, wetland, and cultural woodland communities from 270 Water Street. By incorporating proper best management practices and construction techniques, adverse construction related impacts can be minimized on nearby and/or adjacent features to those removed. The Compensation Plan will ensure there is no net loss of habitat.

Communications and Consultation Overview

The Region elected to directly engage key stakeholders on the proposed changes to the approved Project prior to filing the second addendum to the original ESR. The following summarizes the key activities undertaken:

- The 2018 addendum contact list was reviewed and updated to notify key review agencies, stakeholders, Indigenous communities, and members of the public that requested to be kept informed of the filing of addendum.

- The Notice of Addendum Filing was distributed to the Project's contact list, including review agencies, stakeholders and local Indigenous Communities, as well as advertised on the Region's website and in the local newspapers.
- Meetings were held with the Town of Whitby, Central Lake Ontario Conservation Authority and neighbouring property owners to understand how the 270 Water Street site is planned to be developed and to share project information.
- The Region of Durham has entered into an agreement with Curve Lake First Nation and is committed to on-going consultation on the Project with Curve Lake First Nation during preliminary and detailed design.

Conclusion

This Municipal Class Environmental Assessment Addendum report covers the processes required to ensure that the proposed changes to the Project meet the requirements of the *Environmental Assessment Act*.

The Municipal Class Environmental Assessment Addendum planning process has not identified any significant concerns that cannot be addressed by incorporating established mitigation measures during construction, in addition to compensation in the case of loss of ecological and hydrological functions on the 270 Water Street property.

Considering the above, it is recommended that:

- Following Municipal Class Environmental Assessment Addendum documentation filing and clearance, the updated design concept proceed to preliminary and detailed design including approvals. The Project can proceed to implementation as no Section 16 Order requests were received as a result of the 30-day public review period.
- Mitigation measures identified in Section 6 be expanded upon during preliminary and detailed design and implemented as part of construction.
- The Municipal Class Environmental Assessment Addendum commitments identified in Section 7 be addressed during the preliminary/detailed design phase and monitored for fulfillment.
- The Region continues to work with the Town of Whitby during preliminary and detailed design to develop mitigation strategies and implement the recommended Waterfront Trail relocation and realignment and development of the 270 Water Street property having regard to ultimate planned uses. This also includes co-ordination with the current Town of Whitby Water Street Improvements Municipal Class Environmental Assessment, which is currently underway.
- The Region continues to work with the Central Lake Ontario Conservation Authority and Curve Lake First Nation during preliminary and detailed design to develop mitigation and compensation strategies and implement the recommended works, including post construction monitoring.

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Appendix D.	Stormwater Management Design Strategy for the Whitby Water Supply Plant Expansion
Appendix E.	Consultation Record

1. Introduction

1.1 Background

In 2005, the Regional Municipality of Durham (the Region) completed a Municipal Class Environmental Assessment study (**Appendix A**) that recommended an expansion of the Whitby Water Supply Plant. The proposed expansion represents a doubling of the current Whitby Water Supply Plant treatment capacity from 109 ML/day to 218 ML/day which will accordingly address planned growth within the Town of Whitby in addition to service areas within neighbouring local municipalities. The 2005 study evaluated on-site and off-site Whitby Water Supply Plant expansion options and concluded that the preferred solution was to expand the Whitby Water Supply Plant on the north side of Water Street (270 Water Street) directly across from the existing Water Supply Plant.

In 2016, the Region retained AECOM Canada Ltd. (AECOM) to complete a Municipal Class Environmental Assessment Addendum (**Appendix B**) to the 2005 Whitby Water Supply Plant Municipal Class Environmental Assessment which proposed expanding the existing Whitby Water Supply Plant all within the existing Water Supply Plant property limits on the south side of Water Street. The Municipal Class Environmental Assessment Addendum was cleared – approved in early 2018 and was also accepted by Central Lake Ontario Conservation Authority, subject to completion of and Environmental Impact Study (EIS) for the 270 Water Street property.

Subsequently, the Town of Whitby (the Town) expressed concerns with the impacts of the Water Supply Plant Expansion to the Whitby Waterfront and two Design Charettes were conducted in 2018 with the Town to explore options for mitigating these impacts. The Design Charettes were guided by input from a number of technical experts including architects, land use planners, AECOM project team and representatives from the Region and the Town.

The Design Charettes focused on potential Water Supply Plant facility layout and building massing with the objective of improving the public realm around the Water Supply Plant, explored options for mitigating impacts and identified new opportunities to pursue as the basis for a revised design and approach which included:

- Relocation of the Water Supply Plant's proposed Standby Power Building and Electrical Substation to the Town's property on the north side of Water Street (270 Water Street). Note that for the Standby Power Building and Electrical Substation work, it will now be referred to as the Whitby Water Supply Plant Energy Centre.

- Relocation of one of its new proposed Water Supply Plant buildings from the east side of the Water Supply Plant near Kiwanis Heydenshore Park to the inner spine of the current Water Supply Plant facility.
- Provision for expanded public parking on an interim basis during construction and upgraded permanently after the Water Supply Plant Expansion project is completed (also identified in the 2018 Municipal Class Environmental Assessment Addendum 1).
- A laydown area for the Water Supply Plant Expansion General Contractor to facilitate the construction of the works (also identified in the 2018 Municipal Class Environmental Assessment Addendum 1).
- Potential for Town Redevelopment (i.e. Parks and Recreation Maintenance/Operations Yard) on the 270 Water Street property.
- An emphasis on better architecture (massing, materials) for all new facilities to coincide with the Town's vision for the future improvements of the Whitby waterfront area and public realm.

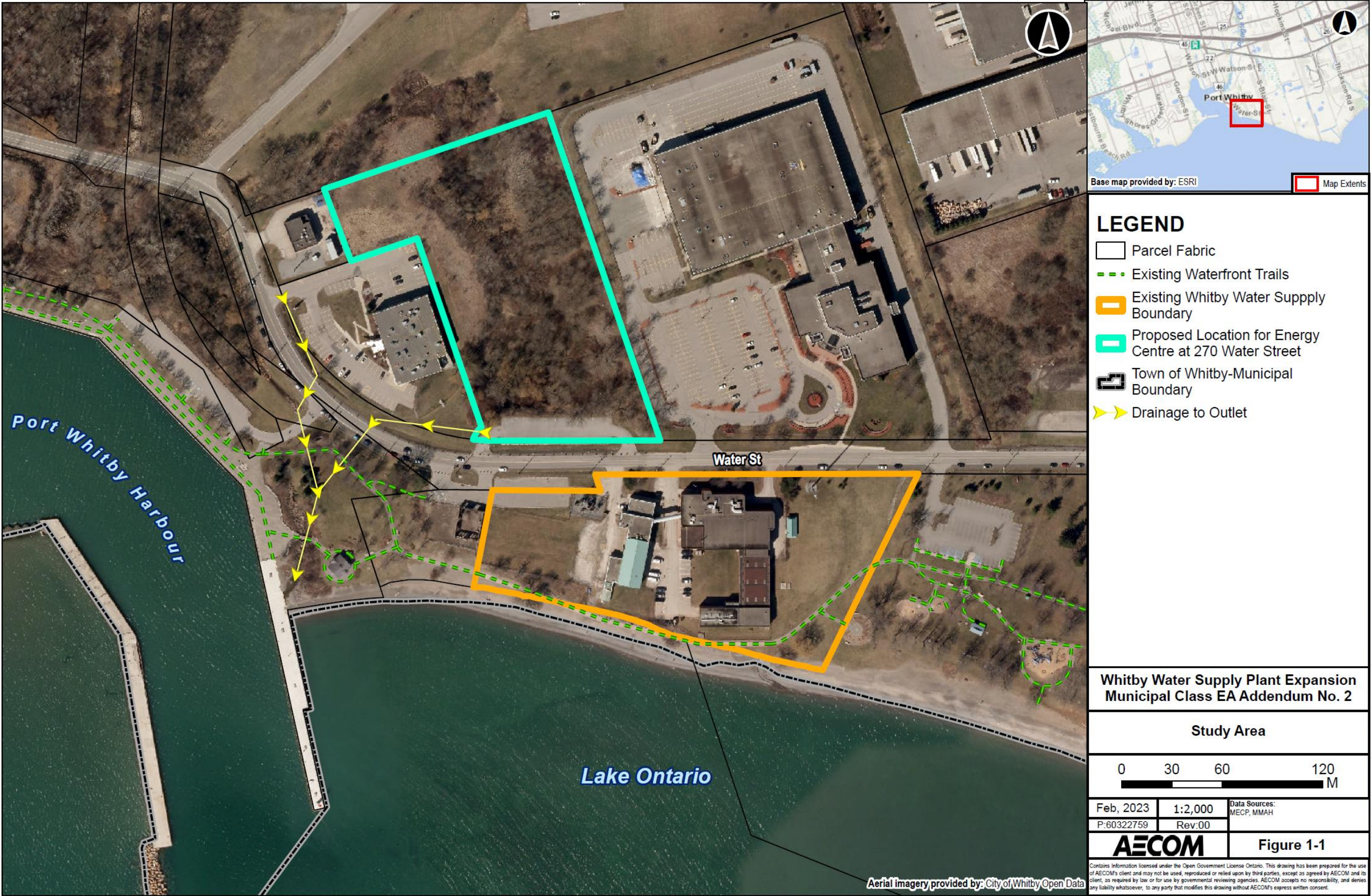
The decision to relocate the proposed Energy Centre to the 270 Water Street property accordingly triggered the need for a second Municipal Class Environmental Assessment Addendum, as addressed by this report. Since the Charette, there have also been other updates to the project description, development of a site plan for the 270 Water Street property, upgrades to the treatment process (south side of Water Street) including associated construction footprints, and Lake Ontario shoreline improvements, protection and erosion measures.

The purpose of this report is to document the addendum planning process, which includes the review of the above noted changes to the project description and its implications since the previous 2018 addendum.

1.2 Study Area

The existing Whitby Water Supply Plant and 270 Water Street property, which is the proposed relocation of the Energy Centre are shown in **Figure 1-1** below.

Figure 1-1: Study Area



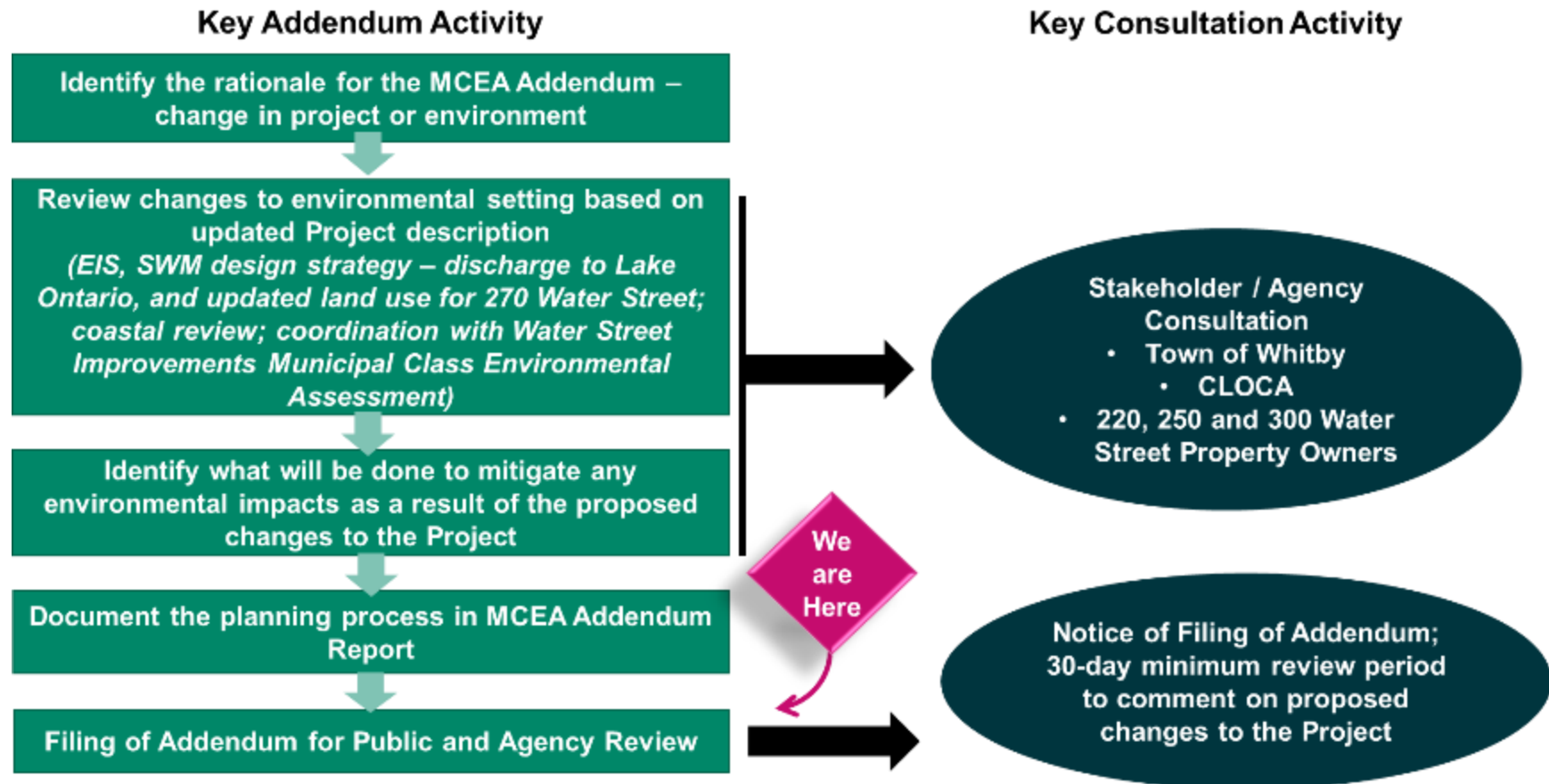
2. Municipal Class Environmental Assessment Addendum Process

All municipalities in Ontario are subject to the provisions of the Ontario *Environmental Assessment Act* and its requirements to prepare an Environmental Assessment for applicable public works projects. In Ontario, infrastructure projects are subject to the Municipal Class Environmental Assessment process and must follow a series of mandatory steps as outlined in the Municipal Class Environmental Assessment Municipal Engineers Association manual.

The original 2005 Environmental Study Report was completed as per the October 2000 Municipal Class Environmental Assessment manual fulfilling the requirements for a Schedule C project at that time. The 2018 addendum was completed to meet the planning and design process as defined in the 2015 Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011 and 2015). This current addendum has been undertaken in accordance with the March 2023 amended Municipal Class Environmental Assessment manual.

The key steps completed as part of the current addendum process, as described within this report, are outlined below in **Figure 2-1**. The activities are further described in this report.

Figure 2-1: 2022-2023 Municipal Class Environmental Assessment Addendum No. 2 Activities



2.1 Filing of Addendum Report and Next Steps

The Municipal Class Environmental Assessment Addendum report was filed for public review where those who were interested were welcome to comment on the planning and decision-making process since the filing of the 2018 Municipal Class Environmental Assessment Addendum.

The addendum was available for public review and comment for a period of 30 calendar days starting on **April 28, 2023** and ending on **May 29, 2023**. To facilitate public review of the addendum, the report was made available on the Region's website:

durham.ca/WhitbyWSP.

Interested persons could only provide written comments on the planning and decision making process since the 2018 addendum. This includes the relocation of the Whitby Water Supply Plant Energy Centre from the south side to the north side of Water Street, new stormwater infrastructure, and revised alignment of the waterfront trail. All comments and concerns were to be sent by **May 29, 2023** directly to both:

- Michael Harris, P.Eng
Regional Municipality of Durham
Project Engineer
905-668-7711 ext. 3458
Email: Michael.Harris@durham.ca
- Martin Gravel, P.Eng.
Project Manager
AECOM Canada Ltd.
416-856-9716
Email: Martin.Gravel@aecom.com

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

Requests were to specify what kind of order is being requested (request for conditions or a request for an individual/ comprehensive environmental assessment), how an order

may prevent, mitigate or remedy potential adverse impacts on Aboriginal and treaty rights, and any information in support of the statements in the request. This was to ensure that the ministry was able to efficiently begin reviewing the request.

The request was to be sent in writing or by email to both Ministry contacts below and a copy was also be sent to the Region's Project Engineer:

- Minister of the Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario M7A 2J3
Email: minister.mecp@ontario.ca
- Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario M4V 1P5
Email: EABDirector@ontario.ca

Please visit the ministry's website for more information on requests for orders under Section 16 of the *Environmental Assessment Act* at: ontario.ca/page/class-environmental-assessments-section-16-order

All personal information included in the request – such as name, address, telephone number and property location – was collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As this information is collected for the purpose of a public record, the protection of personal information provided in the *Freedom of Information and Protection of Privacy Act* does not apply (s.37). Personal information submitted is part of a public record that is available to the general public unless it was requested that personal information remain confidential.

No Section 16 Order requests were received. All comments received during the filing of this addendum are summarized in **Section 8** and documented in **Appendix E**.

3. Description of the Proposed Changes to the Approved Project

3.1 Description of the Approved Project

As per the original 2005 Environmental Study Report and subsequent 2018 Municipal Class Environmental Assessment Addendum, the approved project description included developing the Whitby Water Supply Plant expansion, including the Energy Centre (referred to as the electrical substation and standby generator building and new plant operations centre in the 2018 addendum), on the south side of Water Street. Refer to **Figure 3-1** for the 2018 conceptual layout of the currently approved Water Supply Plant project design concept.

Figure 3-2 shows the 2018 staging area and parking with the actual number of parking spots subject to the results of the Environmental Impact Study. The 2018 addendum identified the 270 Water Street property for use as contractor lay down area for construction staging and Water Supply Plant employee and public parking (during and after construction). Proposed parking on the south side of Water Street identified the integration of the Plant Operations Building Parking with Heydenshore Kiwanis Park parking lot.

The south side of Water Street also identifies the realignment/relocation of the existing Waterfront Trail (east side of new operations building) in addition to a temporary realignment of the trail from the lake to allow construction and ensure public safety.

Figure 3-1: Recommended Plant Layout and Components (2018)

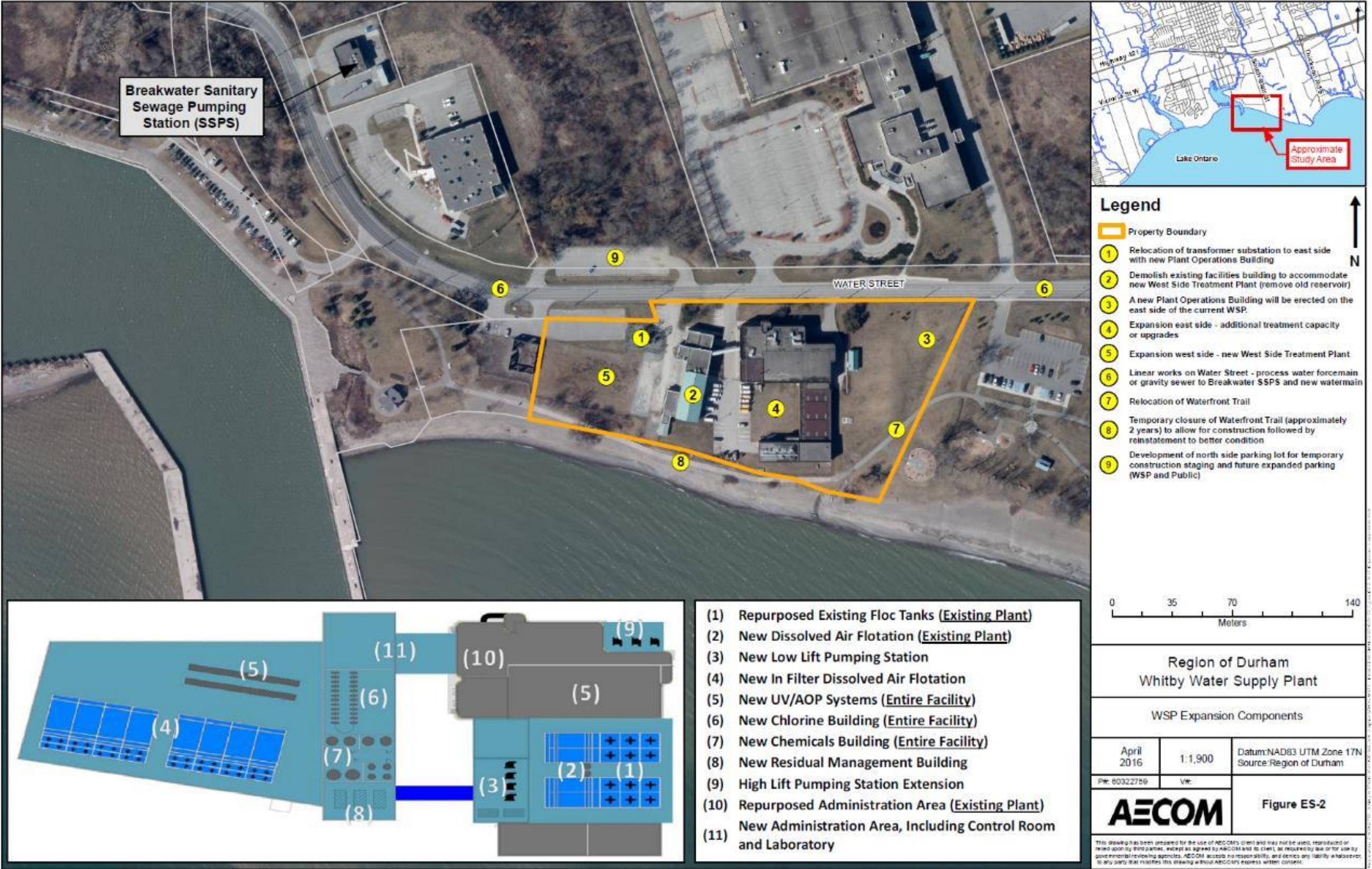
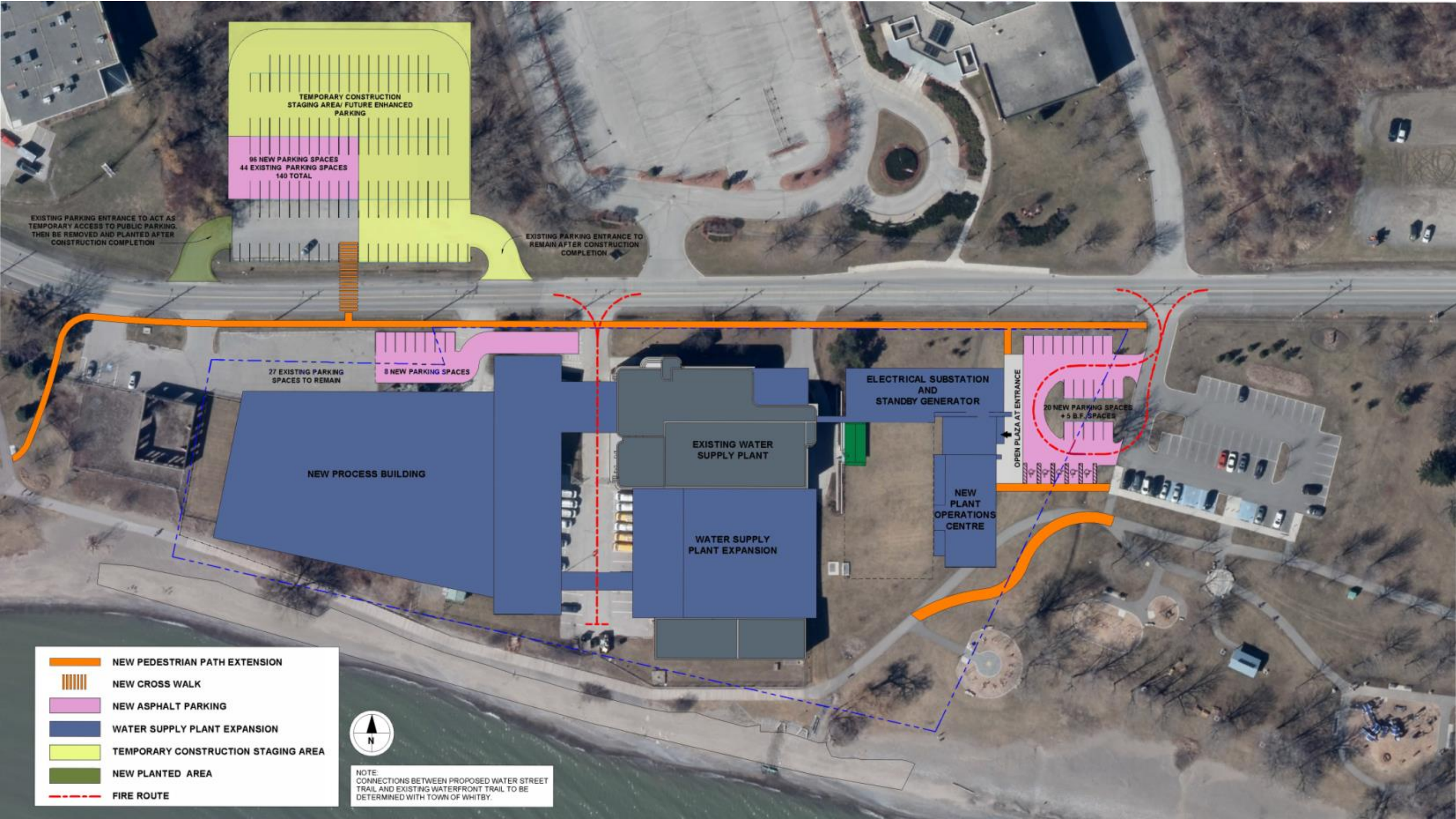


Figure 3-2: Staging Area and Layout (2018)



3.2 Proposed Changes to the Approved Project

As discussed in **Section 1**, the decision to relocate the proposed Energy Centre to the 270 Water Street property accordingly triggered the need for a second Municipal Class Environmental Assessment Addendum as addressed by this report. To support this new addendum, the Region with input from the Town, developed draft interim and ultimate site plans for the entire 270 Water Street property that captures the ultimate use for the property. As shown in **Figure 3-3**, the conceptual Site Plan renderings show the proposed changes to the north side of Water Street (270 Water Street) from that of the 2018 layout:

- Relocation of the Energy Centre from south of Water Street to the north-west corner of 270 Water Street.
- New electrical substation that is required by Elexicon to support planned local Town of Whitby development, including the Water Supply Plant. To be located just east of the Energy Centre to limit short-term construction impact and long-term visual impact to the Whitby Waterfront.
- Potential future Town of Whitby Redevelopment, which is being considered to house a Parks Facilities Maintenance/Operations Yard
- Updated layout for parking, which now includes both secured and public parking. Secured parking will be shared by the Region/Town of Whitby and is an operational requirement to protect both vehicle fleet systems. At the time of this publication, there are 88 public parking spots proposed, at minimum, at 270 Water Street. This number and the final layout of the parking lot are to be confirmed and approved by the Town at the detailed design phase of the Project.

In addition to the above, specific to the south side of Water Street, the location of the new operations centre and Waterfront Trail relocation and realignment has changed from what is shown in the 2018 Environmental Assessment Addendum report. Refer to **Figure 3-3**.

Furthermore, the treatment stage for the in-filter dissolved air flotation (DAF) has been further refined with the “filter” portion to be explored with gravity-driven membranes (GDM). This technology being more compact than the previous in-filter DAF option may provide the opportunity for the Region to expand the Water Supply Plant beyond 218 ML/d on the south side of Water Street in future plant expansions. This approach will be finalized during a pilot study in 2023 and further design studies will review the potential for oversizing some infrastructure (tanks, buildings) now as part of this project in preparation for future capacity expansions due to the extreme tight nature of the site.

Figure 3-3: Whitby Water Supply Plant Expansion Conceptual Rendering at Completion



Note: This rendering is for conceptual purposes only. The number and the final layout of the parking lot (Number 5) are to be confirmed and approved by the Town at the detailed design phase of the Project.

The proposed development timing and staging for the 270 Water Street site is described below.

- **2024 to 2025** – Site preparation and contract completed for the Energy Centre, Elexicon Substation, site clearing and grading for contractor laydown and temporary public parking
- **2025 to 2030** – Site to be used temporarily for public parking and a contractor laydown area during the construction phase of the Whitby Water Supply Plant expansion
- **2030 and beyond** – Site to be converted to a permanent public parking lot, with a secured parking lot for Region and Town fleet vehicles and a vacant portion of the site that may be redeveloped in the future by the Town of Whitby into a Park's Department Maintenance/Operations Facility

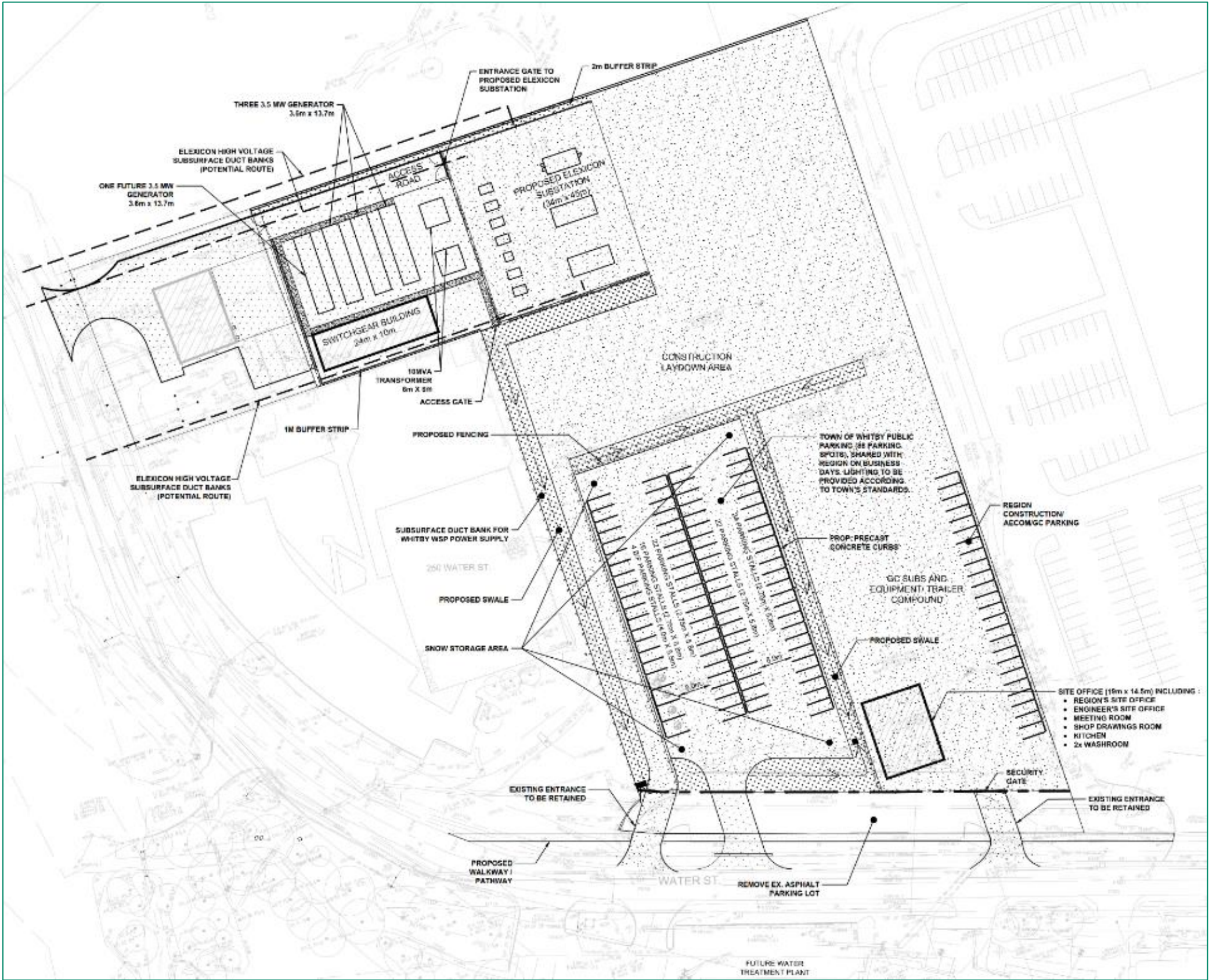
The proposed interim and ultimate 270 Water Street conceptual site plans are discussed in further detail in **Sections 3.2.1** and **3.2.2**.

3.2.1 Interim Site Plan Layout

Main features of the interim site layout (**Figure 3-4**) are described as follows:

- The 270 Water Street. property will be cleared from trees and the property will be graded to allow for positive site drainage. The whole property will be gravel paved.
- A minimum of 88 parking spots will be provided on the south side of the 270 Water Street property for public parking which will be shared with the regional staff and plant visitors during weekdays. The interim parking lot will be gravel paved and will be provided with precast concrete parking curbs. Lighting will be provided for interim parking lot and for portions of the Contractor staging / laydown area for site security and safety reasons. The final layout of the parking lot is to be confirmed and approved by the Town at the detailed design phase of the Project.
- The construction trailers compound and parking are expected to be located on the south-east side of the property. This trailer compound will have a secured entrance from Water Street and will have temporary fencing to prevent public access.
- As part of the Energy Centre construction site preparation contract, the site offices for the Region, the Region's engineer, site meeting room, and washrooms will be constructed. Temporary transformer will be used to provide power for the site office and lighting for the construction trailer area.

Figure 3-4: Interim Site Plan for 270 Water Street



- A construction corridor for the underground duct bank will be constructed on the west side of the 270 Water Street property.
- The construction laydown area will cover the north part of the property adjacent to the new Energy Centre and Elexicon's transformer substation.
- Permanent fencing will be installed around the new Energy Centre and the Region's own transformer substation.
- Temporary fencing will be installed around the public parking to prevent public access to the construction trailer compound and the construction laydown area.
- A new access road will be built north of the Breakwater Sewage Pumping Station to provide Region access to the Energy Centre and Elexicon staff to their transformer substation.
- Drainage from the Energy Centre will be conveyed west to the existing drainage ditches on Water Street in front of the Breakwater Sewage Pumping Station site. Drainage calculation will be submitted to the Town for final approval at the detailed design stage.
- Site drainage will be conveyed south through a series of swales and ditch inlet catch basins on 270 Water Street property (excluding the Energy Centre property) that will be discharged to an up-sized storm sewer on Water Street.
- Existing stormwater ditches on Water Street to be expanded to increase its capacity. A new up-sized storm sewer (new twin 1.8 metre span x 0.9 metre rise culvert) will be used to collect and convey the stormwater southwest from the 270 Water Street site, through Rotary Sunrise Lake Park, to the existing Lake Ontario outfall. The Design Team for the Water Supply Plant will continue to consult and coordinate with the Town of Whitby to ensure planned activities on the 270 Water Street site are integrated into the Town's planned infrastructure upgrades along Water Street (as per the current and ongoing Municipal Class Environmental Assessment study). Details of the stormwater management plan are provided in **Section 5.1.2** and the Whitby Water Supply Plant stormwater management technical memorandum **Appendix D**.

3.2.2 Ultimate Site Plan Layout

The features of the ultimate site layout presented in **Figure 3-5** are as follows:

- A minimum of 88 parking spots will be provided on the south side of the property for public parking which will be shared with the Region and plant

visitors during weekdays. The parking lot will be asphalt paved and will be provided with precast concrete parking curbs. The final layout of the parking lot is to be confirmed and approved by the Town at the detailed design phase of the Project.

- A new secured parking lot will be provided north of the public parking area. This parking lot will be shared by the Region and the Town of Whitby. This parking lot will be provided with charging station for Electric Vehicles (EV) and a solar panel canopy.
- The area for the potential Town's future Parks and Recreation Maintenance/Operations Yard will be graded and remain as gravel paved until such time the Town redevelops this area of the property.
- Driveway access from Water Street will be coordinated with the proposed re-development and construction of the Water Street right-of-way as guided by the Town's current Water Street Improvements Municipal Class Environmental Assessment.
- Additional swales, twin box culverts, and ditch inlet catch basins will be installed to enhance the drainage measures implemented for 270 Water Street during the interim site construction.
- As part of the Town of Whitby's Water Street improvements, the constructed Phase 1 twin box culvert storm sewer along the north limit of the Water Street right-of-way will be extended to a single stormwater culvert 1.8 metre span and 0.9 metre rise and be extended to South Blair Street.

Details of the stormwater management plan for the final site are provided in the Stormwater Management Design Strategy for the Whitby Water Supply Plant Expansion (**Appendix D**).

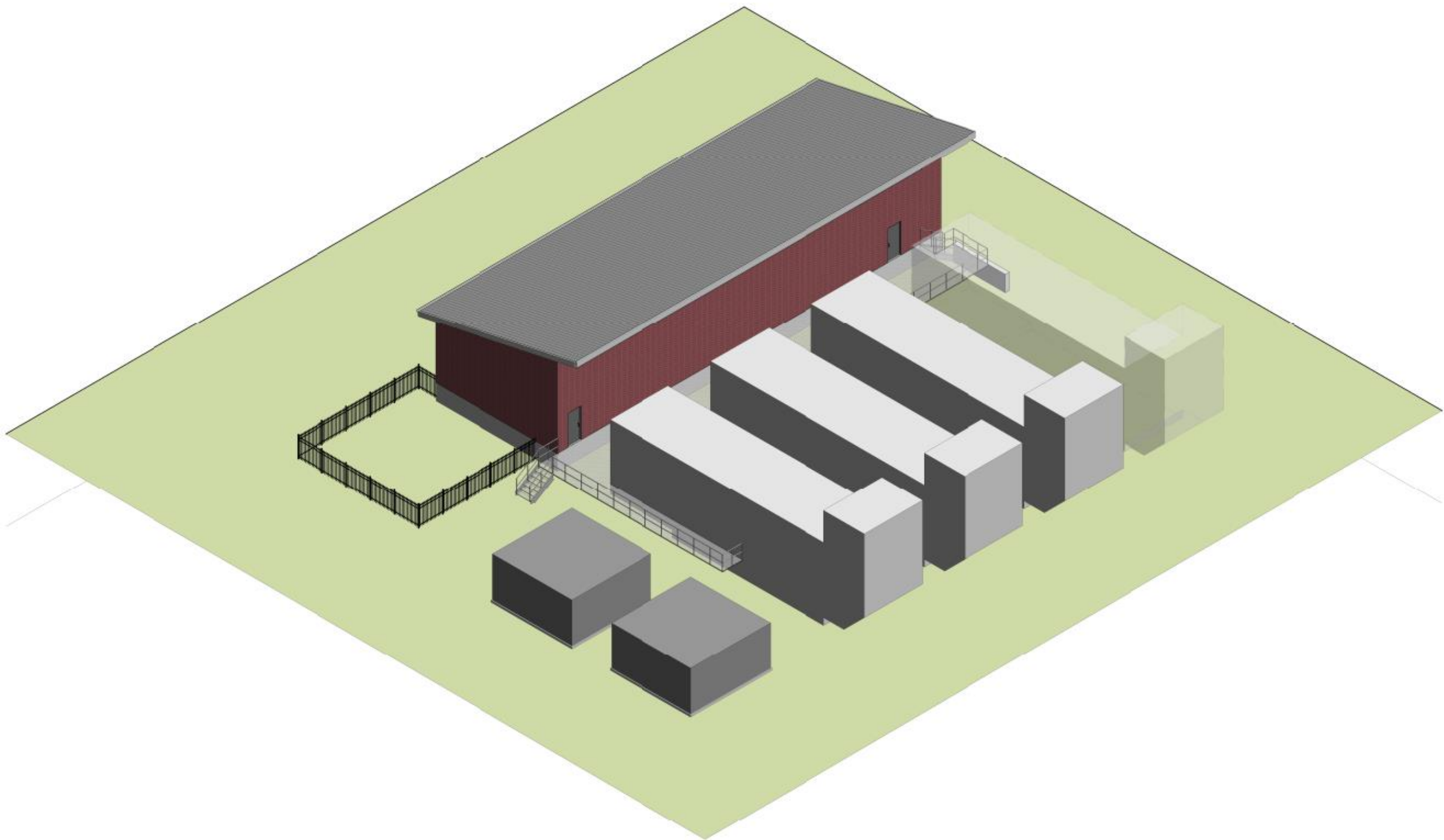
The Ultimate Site Plan for 270 Water Street/WSP will also include a Level 2, Type C Pedestrian Crossover to provide a controlled crossing for pedestrians.

A conceptual 3-D rendering of the proposed Energy Centre is shown on **Figure 3-6**.

Figure 3-5: Ultimate Site Plan for 270 Water Street



Figure 3-6: Proposed Energy Centre Conceptual Rendering



3.3 Rationale for the Proposed Changes

The decision to relocate the proposed Energy Centre to the 270 Water Street property was a key outcome of the Design Charrette to significantly improve the public realm on the Waterfront and around the Whitby Water Supply Plant. Among others, the advantages of relocating the Energy Centre include:

- Utilizes publicly owned land that is adjacent to the existing Water Supply Plant, is within the Urban Area of the Town; and is considered a compatible land use being identified as “Prestige Industrial” in the Town of Whitby’s Official Plan. This also includes the opportunity to integrate the proposed Elexicon electrical sub station and the Town of Whitby’s future development (Parks and Recreation Maintenance/Operations Yard) on the site.
- Reduced visual impacts to the public using the Waterfront.
- Provides more flexible space to accommodate others uses adjacent to the Whitby Water Supply Plant property (south side of Water Street) where the Energy Centre was originally proposed.

4. Review of Planning Policy Context

The following section provides a review of the planning policy context for the Project as it relates to the relocation of the proposed Energy Centre to 270 Water Street.

4.1 Provincial Policy Statement

The Provincial Policy Statement (2020) sets the policy foundation for regulating the development and use of land and provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.

Relevance to addendum: The key sections of policies relevant to this addendum include:

- 1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns
- 1.2 Co-ordination
- 1.6 Infrastructure and Public Service Facilities
- 2.1 Natural Heritage
- 2.2 Water
- 3.0 Protecting Public Health and Safety

Pursuant to Policy 1.2.1, the Project is consistent with the Provincial Policy Statement through the implementation of a coordinated, integrated and comprehensive approach to dealing with infrastructure. The proposed Energy Centre is being planned to meet the current and projected needs of the Region and local area.

Subsection 1.6.6 outlines the policies for water. Provincial Policy Statement Policy 1.6.6.1 states “Planning for *sewage and water services* shall:

- a) direct and accommodate expected growth or development in a manner that promotes the efficient use and optimization of existing:
 - 1. municipal sewage services and municipal water services; and
 - 2. private communal sewage services and private communal water services, where municipal sewage services and municipal water services are not available;

- b) ensure that these systems are provided in a manner that:
 - 1. can be sustained by the water resources upon which such services rely;
 - 2. is feasible, financially viable and complies with all regulatory requirements; and
 - 3. protects human health and the natural environment;
- c) promote water conservation and water use efficiency;
- d) integrate servicing and land use considerations at all stages of the planning process; and
- e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5.”

Consistent with Policy 1.6.6.1, the proposed Energy Centre relocation considered the integration of municipal servicing and land use considerations. The proposed change was also reviewed on the basis of its feasibility, cost and compliance with regulatory requirements.

The data findings of the Environmental Impact Study (**Appendix C**) were used in an analysis of natural heritage functions and features and confirmed against the Provincial Policy Statement. Through review of Region and Town Official Plans, and seasonal field investigations, the subject property does not contain: significant wetlands; coastal wetlands; significant valleylands; significant wildlife habitat; or significant Area of Natural and Scientific Interest.

The wooded area (cultural woodland and deciduous swamp/thicket swamp), as shown in **Figure 5-1**, is designated as a Key Natural Heritage Feature in the Regional Official Plan (refer to **Section 4.3**); however, it is not depicted as part of the Town’s Natural Heritage System. The Provincial Policy Statement states that development and site alteration are not permitted within a significant woodland unless demonstrated there is no negative impact. However, as detailed below, the Regional Official Plan allows for verification of Key Natural Heritage Features through the Environmental Impact Study process. As the woodland is not within the Town’s Natural Heritage System and is comprised of young, of invasive and common successional species and is relatively small, it does not meet the test of ‘significant’.

Based on seasonal and species-specific field investigations, there is also no fish habitat present, nor habitat of endangered and threatened species.

4.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020) provides a long-term framework which aims to manage growth, build complete communities, curb urban sprawl and protect the natural environment.

Relevance to addendum: 270 Water Street is located within the Greater Golden Horseshoe Growth Plan Area. The policies of the Growth Plan were considered and do not preclude the relocation of the Energy Centre to the north side of Water Street.

4.3 Durham Region Official Plan

The Regional Municipality of Durham's Official Plan (Consolidation May 26, 2020) provides policy directions that establish the future development pattern of the Region to 2031. In 2019, the Region of Durham initiated "Envision Durham" – the Municipal Comprehensive Review of their Regional Official Plan to establish a planning vision and framework for the Region to 2051.

Relevance to addendum: As per Schedule A – Map A4 (Regional Structure) of the Regional Official Plan, 270 Water Street is located within the Employment Areas. The proposed relocation of the Energy Centre to the 270 Water Street property is a permitted use as per Official Plan Policy 8C.2.3.

The wooded area of 270 Water Street is designated a Key Natural Heritage Feature on Schedule B Map B1(d) of the Region's Official Plan. Section 2.3.14 provides for Key Natural Heritage Features to be confirmed through appropriate studies such as an Environmental Impact Study.

The vegetation on the 270 Water Street property meets the criteria for woodland, but not as significant woodland as its composition is young and of non-native, invasive species, as well as common successional species, and has low functional importance due to its relatively small size. It does however provide habitat for migrant birds due to its proximity to the lake, but that alone does not qualify the woodland as 'significant'.

Schedule B – Map B2 of the Regional Official Plan indicates the area as being within a High Aquifer Vulnerability area. Source water protection has been considered for this project (**Section 4.7**).

This addendum is also considering the ongoing Water Street Improvements Municipal Class Environmental Assessment study. Schedule C – Map C2 (Road Network) in the

Durham Regional Official Plan designates Water Street as a Type C Arterial Roadway, which functions as a multi-use two lane roadway accommodating commercial and passenger vehicles, pedestrians and cyclist movements.

Based on the above, the proposed use of the 270 Water Street property for the Water Supply Plant Expansion is consistent with that of the Region's Official Plan.

4.4 Durham Region Corporate Climate Change Action Plan

The purpose of the Corporate Climate Change Action Plan is to provide a comprehensive approach to reducing greenhouse gas (GHG) emissions from the Region of Durham's corporate operations.

Relevance to addendum: Climate change was considered as part of the current addendum for 270 Water Street (**Section 5.3**).

4.5 Town of Whitby Official Plan

The Town of Whitby Official Plan (August 2021 Office Consolidation) sets policy directions for land use planning matters regarding long-term growth and development.

Relevance to addendum: 270 Water Street is designated as "Prestige Industrial" as per Schedule A (Land Use). Policies under Section 4.7.3.2 (Prestige Industrial) apply to the property. The proposed Energy Centre is a permitted use for the property. Pursuant to Policy 4.7.3.2.1: "All *development* and *redevelopment* in these areas shall exhibit a high standard of building design, an attractive appearance, and extensive landscaping". The proposed Energy Centre will be designed to high standards, recognizing the industrial nature of the Energy Centre.

Schedule C (Environmental Management Plan) of the Town's Official Plan does not identify Natural Heritage System or Natural Hazards on the 270 Water Street property.

Section 5.3.1.4 (General policies for Environmental Management) requires that woodlands and trees be preserved through the requirements of the Tree Protection By-law, the Region of Durham's Tree Cutting By-law and in accordance with the Trees Act. It also requires that landmark trees and hedgerows be inventoried and considered for incorporation to the design of development. Landmark trees are not defined in the Official Plan.

Section 5.3.2.4 of the Town's Official Plan requires that development within 1 km of the shoreline consider design measures to minimize negative impacts to the wildlife corridor function of the waterfront.

This addendum is also considering the ongoing Water Street Municipal Class Environmental Assessment study. Water Street is designated as a Type C Arterial Roadway as per Schedule D (Transportation).

4.6 Central Lake Ontario Conservation Authority Watershed Regulations and Policies

4.6.1 Ontario Regulation 142/06

Central Lake Ontario Conservation Authority regulates hazard lands, including creeks, valleylands, shorelines, and wetlands, as well as lands adjacent to these features. Central Lake Ontario Conservation Authority also regulates all watercourses and valleylands.

Relevance to addendum: In accordance with the *Conservation Authorities Act* and Ontario Regulation 42/06, the wetlands on the 270 Water Street property are regulated by Central Lake Ontario Conservation Authority and a permit may be required prior to removal of any wetland feature.

Subject to conformity with the applicable Official Plan, the completion of appropriate studies and following the Central Lake Ontario Conservation Authority permit process, development may be permitted within regulated areas. Permission to develop within regulated areas requires the issuance of a permit from Central Lake Ontario Conservation Authority. Obtaining a permit generally requires the preparation of an Environmental Impact Study (See **Appendix C**). There may be a requirement for features to be maintained and/or for protective buffers to be placed on features or hazard lands within the study area.

The boundary of the wetland was staked in the field by Central Lake Ontario Conservation Authority staff and a Beacon ecologist. The boundary was transcribed onto a figure to determine the size of the wetland for compensation purposes, but was not staked as it is proposed to be removed. Under its Regulation, Central Lake Ontario Conservation Authority can issue a permit for development within the regulated area: "if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development".

The proposed development and site alteration necessitates the removal of the wetland on site and may affect wetland offsite. To replace the function of the wetland removed, compensation will be provided in consultation with Central Lake Ontario Conservation Authority.

The Region recognizes that the discussions and correspondence with the Central Lake Ontario Conservation Authority to date (Central Lake Ontario Conservation Authority October 12, 2022 letter response and Durham Region January 10, 2023 letter response) regarding the proposed approach to compensation for the removal of the wetland features on the 270 Water Street property are ongoing at the time of the publication of this addendum report. The Region is committed to continuing dialogue regarding the wetland features and collaboratively working together with Central Lake Ontario Conservation Authority through the design phase of the Project with the goal to ultimately present an agreed upon compensation approach to the Central Lake Ontario Conservation Authority Board of Directors that will support the Central Lake Ontario Conservation Authority permit and approval phase.

4.6.2 Policy and Procedural Document for Regulation and Plan Review

The Central Lake Ontario Conservation Authority provides peer review support on natural heritage matters for their municipal partners, including the Town of Whitby. Their Policy and Procedural Document for Regulation and Plan Review (2014) provides a framework for their review.

The Central Lake Ontario Conservation Authority supports the protection of Natural Heritage Features and the Natural Heritage Systems as identified in watershed plans consisting of a connected system of Provincially Significant Wetlands, provincially significant ANSIs, important aquatic habitat, riparian corridors, core habitat areas and corridors, woodlands and/or wetlands, as well as areas identified for natural cover regeneration/restoration which will improve connectivity and habitat.

Relevance to addendum: Refer to **Section 4.6.1**.

4.7 Approved Source Protection Plan: Credit Valley-Toronto and Region-Central Lake Ontario Source Protection Region

The CTC Source Protection Region encompasses three areas: Credit Valley, Toronto and Region, and Central Lake Ontario. The Whitby Water Supply Plant study area is located in the Central Lake Ontario Source Protection Area. The applicable SPP for the

Whitby Water Supply Plant study area is called the *Approved Source Protection Plan: Credit Valley-Toronto and Region-Central Lake Ontario Source Protection Region* (Effective Date: March 2, 2022). *The Approved Updated Assessment Report: Central Lake Ontario Source Protection Area*, also referred to as the Assessment Report, identifies the location and threats to the municipal drinking water system, which uses Lake Ontario as the water source. The four types of vulnerable areas delineated and scored within the Assessment Report include: Intake protection zones, Highly vulnerable aquifers, Significant groundwater recharge areas and Wellhead protection areas

Relevance to addendum: The 2018 addendum (Section 4.6) reviewed source water protection based on the approved project description, which included the proposed construction staging area and parking lot on the north side water street (270 Water Street). The study area and proposed expansion area fall within two vulnerable areas: Intake protection zone 2 and Highly vulnerable aquifer. The policies noted in the 2018 addendum also apply to the proposed Energy Centre relocation to 270 Water Street.

5. Review of Environmental Setting

The anticipated implications of relocating the Energy Centre to the 270 Water Street property where only construction staging and parking was previously proposed is summarized below according to the aspects of the environment, which includes the natural, socio-economic, cultural, and technical environments. The changes to the waterfront trail alignment have also been considered, where applicable. How the potential negative effects associated with the proposed changes will be addressed is discussed in **Section 6**.

5.1 Natural Environment

There are changes to the impacts on the natural environment with the relocation of the Energy Centre to the 270 Water Street property. Below presents the findings from the Environmental Impact Study (**Appendix C**) and Stormwater Management Report (**Appendix D**).

5.1.1 Environmental Impact Study

An Environmental Impact Study (**Appendix C**) was completed by Beacon Environmental Limited (Beacon) for 270 Water Street (the subject property). Central Lake Ontario Conservation Authority accepted the 2018 Municipal Class Environmental Assessment addendum, subject to completion of an Environmental Impact Study at the design stage that would be used to guide the impact management and permitting process.

The Environmental Impact Study (refer to **Appendix C**) identifies and determines the potential impact of the proposed development (270 Water Street) on the natural heritage system and addresses any issues related to regulated species (e.g., under the Endangered Species Act). The Environmental Impact Study provides a background review and description of the physical and ecological characteristics of the subject property, their functions, significance and sensitivity. The study was completed through a review of background documents and seasonally appropriate field investigations undertaken in 2014, 2018 and 2021 which included: breeding amphibian surveys, breeding bird surveys, bat snag surveys and acoustic monitoring, Ecological Land Classification vegetation community mapping, and wetland boundary delineation with Central Lake Ontario Conservation Authority. These data were used in an analysis of natural heritage functions and features and confirmed against the 2020 Provincial Policy Statement, Region Municipality of Durham and Town of Whitby Official Plans, and the guidelines and policies of regulatory agencies, such as the Central Lake Ontario Conservation Authority.

Site and species-specific field investigations, as summarized further below in **Table 5-1**, were conducted over several years on the subject property to determine its existing natural heritage functions and features. These functions and features were assessed against applicable policies subject to the Environmental Assessment Act process. The location of the subject property is ideal for the expansion of the Region's infrastructure, but the small size of the property precludes the ability to retain any existing vegetation communities.

However, the extensive field investigations have concluded that the removal of these vegetation communities will not result in the loss of unique or rare vegetation communities or functions that cannot be replaced. This involves the loss of wetland, meadow and cultural woodland.

Through the post Environmental Assessment Addendum design phase, Durham Region has committed to working with the Central Lake Ontario Conservation Authority to demonstrate how compensation opportunities can be maximized to provide the most effective compensation function and value. This strategy/plan also aligns with the Region's current Regional Official Plan update (Envision Durham – Municipal Comprehensive Review). When approved (anticipated in 2023) it will comply with the Ontario Provincial Policy Statement by including policies for natural heritage system planning best practices that recognizes the strategic importance of a systems-based approach to protecting, restoring and enhancing the natural environment by not only considering core natural features, but also the connections between. The new Official Plan will also include an ecosystem compensation policy that allows ecosystem compensation only as a last resort when mitigation and avoidance are not possible, and/or when the removal of natural heritage features are permitted (e.g., through the Municipal Class Environmental Assessment process) as in the case for the 270 Water Street property.

5.1.1.1 Field Investigation Findings

The following table summarizes the findings from the field investigations completed in support of the Environmental Impact Study. The Ecological Land Classifications are mapped and overlaid with the stormwater flows (**Section 5.1.2**) in **Figure 5-1**.

Table 5-1: Summary of Field Investigation Findings

Survey Type	Dates	Summary of Findings
Breeding Amphibian Surveys	■ April, May 2014 ■ May, June 2018 ■ April, May, June 2021	■ 2014: 2 male American Toads ■ 2018: None ■ 2021: None
Breeding Bird Surveys	■ May, June 2014 ■ June 2018 ■ May, June 2021	■ A total of 26 breeding species over three years ■ No Committee on the Status of Endangered Wildlife in Canada or Committee on the Status of Species at Risk in Ontario listed species ■ Dominated by urban-tolerant species
Ecological Land Classification Mapping (see Figure 5-1)	■ June 2014 ■ July 2021	■ Two upland communities: Mineral Cultural Meadow (CUM1) and Mineral Cultural Woodlands (CUW1) ■ Two wetland communities: Willow Mineral Thicket Swamp (SWT2-2) and Willow Mineral Deciduous Swamp (SWD4-1) ■ A total of 67 species of herbaceous and woody plants ■ High proportion of non-native invasive species (e.g., Manitoba Maple, Common Buckthorn, Dog- strangling vine) ■ Two regionally uncommon species: Silverweed; Meadow Horsetail ■ No endangered or threatened vegetation communities or species
Butternut Survey	■ August 2018	■ None
Bat Acoustic Monitoring	■ May, June 2019 ■ June 2021	■ 2019: four/five species: Big Brown Bat/Silver Haired Bat, Eastern Red Bat, Hoary Bat, Little Brown (Endangered) ■ 2021: five species: Big Brown Bat, Hoary Bat, Silver- haired Bat, Eastern Red Bat, and Northern Myotis (Endangered) ■ Analysis of call data indicates the endangered species are not likely using the treed communities as maternity roost habitat
Bat Snag Survey	■ August 2018	■ 17 snags identified: 16 Manitoba Maple and 1 Trembling Aspen

Figure 5-1: Natural Environment Existing Conditions



5.1.1.2 Summary of Key Functions and Attributes

The features, functions and connectivity of the 270 Water Street property are described in the Environmental Impact Study (**Appendix C**). Existing information, field investigations and analysis was used to identify important aspects in each of the following areas:

- Vegetation communities and flora
- Breeding birds
- Other wildlife attributes

These attributes and functions have also been used as a surrogate for other wildlife values. Existing information was also integrated into this existing conditions assessment. In considering the range of functions, attributes and species found on the subject property, **Table 5-2** provides a summary of the key functions and attributes that have been identified on the subject lands.

Table 5-2: Summary of Key Functions and Attributes

Key Features	Functions and Attributes
Wildlife	■ Provides habitat for relatively common breeding birds. ■ Given its close proximity to Lake Ontario, it provides seasonal habitat for migrating species.
Wetlands	■ An unevaluated wetland occurs throughout the central portion of the property and extends on to the adjacent property to the north. ■ Wetlands such as this can provide storage functions as well as wildlife habitat.
Woodlands	■ Cultural woodland occurs along the eastern portion of the property and within the wetland as swamp. ■ Woodlands provide wildlife habitat, including habitat for breeding and migrant birds, as well as seed banks and proliferation of vegetative species.

5.1.2 Stormwater Management

A stormwater management report (**Appendix D**) has been completed for the 270 Water Street property to support the site plan proposed, which includes the relocation of the Energy Centre from that of the 2018 addendum. The post-development design does not include details of the site plan for ultimate build out by the Town of Whitby. However, the potential integration of the site servicing with the proposed road improvements for Water Street (subject of on-going Municipal Class Environmental Assessment by the Town of Whitby) have been considered.

The stormwater management report presents, among other information, the existing and post-development site conditions, Water Street analysis, Lake Ontario water level sensitivity analysis and the associated proposed stormwater plan. Refer to **Appendix D** for the complete report.

5.1.2.1 Existing Pre-Development Conditions – 270 Water Street

Existing surface topography was reviewed to determine site flow patterns. Under pre-development conditions, runoff from the site drains overland in three directions: north into existing wetlands (Outlet 1), southwest towards ditch on private property to the west, and south into the ditch running along Water Street (Outlet 4). The existing drainage areas for the property and contributing area to the west (conveying runoff to the same storm sewer network) are presented on **Figure 5-2**. In **Figure 5-2**, the existing topography is presented with the surface flow pattern indicated by arrows. Runoff from all outlets eventually drain into Lake Ontario, south of Water Street as described below.

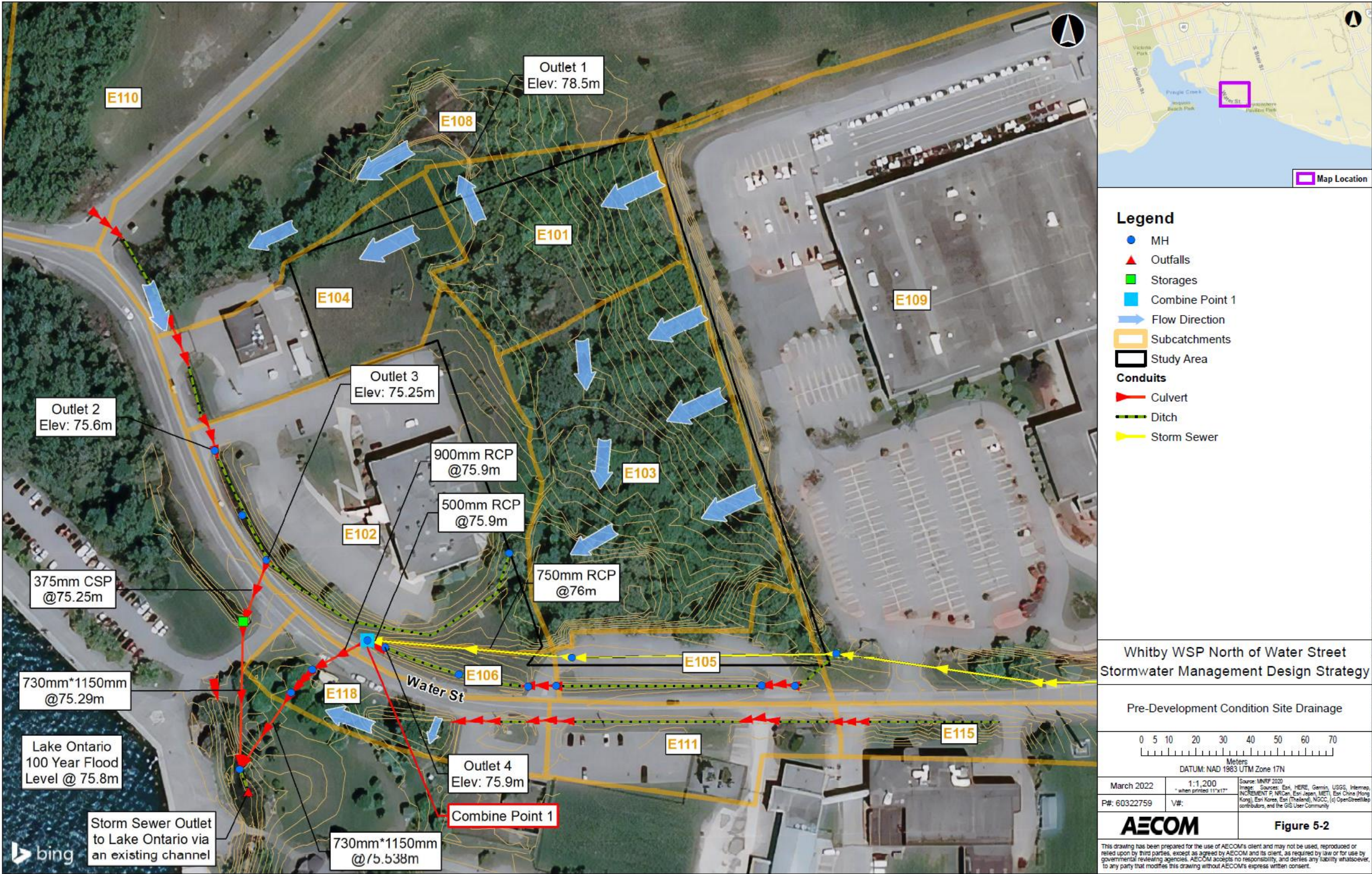
Outlet 1: Outlet 1 consists of a drainage swale conveying runoff north into the existing wetland area, from Catchment Area E101. The Catchment Area E101 contribution to this outlet from the site consists of mainly wetland area.

Outlet 2: The existing Catchment Area E104 sheet flows west, combines with flow from catchment E108 and E110 and discharges into the ditch along Water Street. Based on the existing topography, the Catchment Area E104 consists of Durham Region Breakwater sewage pumping station site, parking lot, and an undeveloped portion of land.

Outlet 3: The Catchment Area E103, which contains two thirds of the subject site and drains in south westerly direction, convey runoff into the drainage ditch within the private property to the west of the subject site and north of Water Street. This drainage ditch continues to convey runoff west into a 375 millimetre Corrugated Steel Pipe culvert (75.25 metre invert) crossing Water Street into the south ditch along Water Street, and eventually discharges into Lake Ontario via a 730 millimetre by 1150 millimetre culvert (75.29 metre invert) and an existing channel. The adjacent neighboring property catchment area E102 also drains into Outlet 3 and crosses Water Street using the same 375 millimetre culvert.

Catchment Areas E103 and E102 consist of undeveloped area, institutional/commercial building, parking lot and green space.

Figure 5-2: Pre-Development Condition Site Drainage



Outlet 4: Catchment Area E105 mainly represents a paved parking lot and some green space, located to the south of the subject site. The Catchment Area E106 consists of green space on the private property to the west of subject site and within the Water Street ROW. Runoff from Catchment Areas E105 and E106 convey west via a ditch, along Water Street, to a 500 millimetre Corrugated Steel Pipe culvert and into a manhole. An existing 750 millimetre storm sewer also conveys runoff into the same manhole, which eventually discharges into Lake Ontario via a storm system consisting of a 900 millimetre storm sewer, 730 millimetre x 1150 millimetre storm sewer and an existing channel.

Refer to **Appendix D** for the summary of the pre-development catchment characteristics and peak flow for the 100-year storm event.

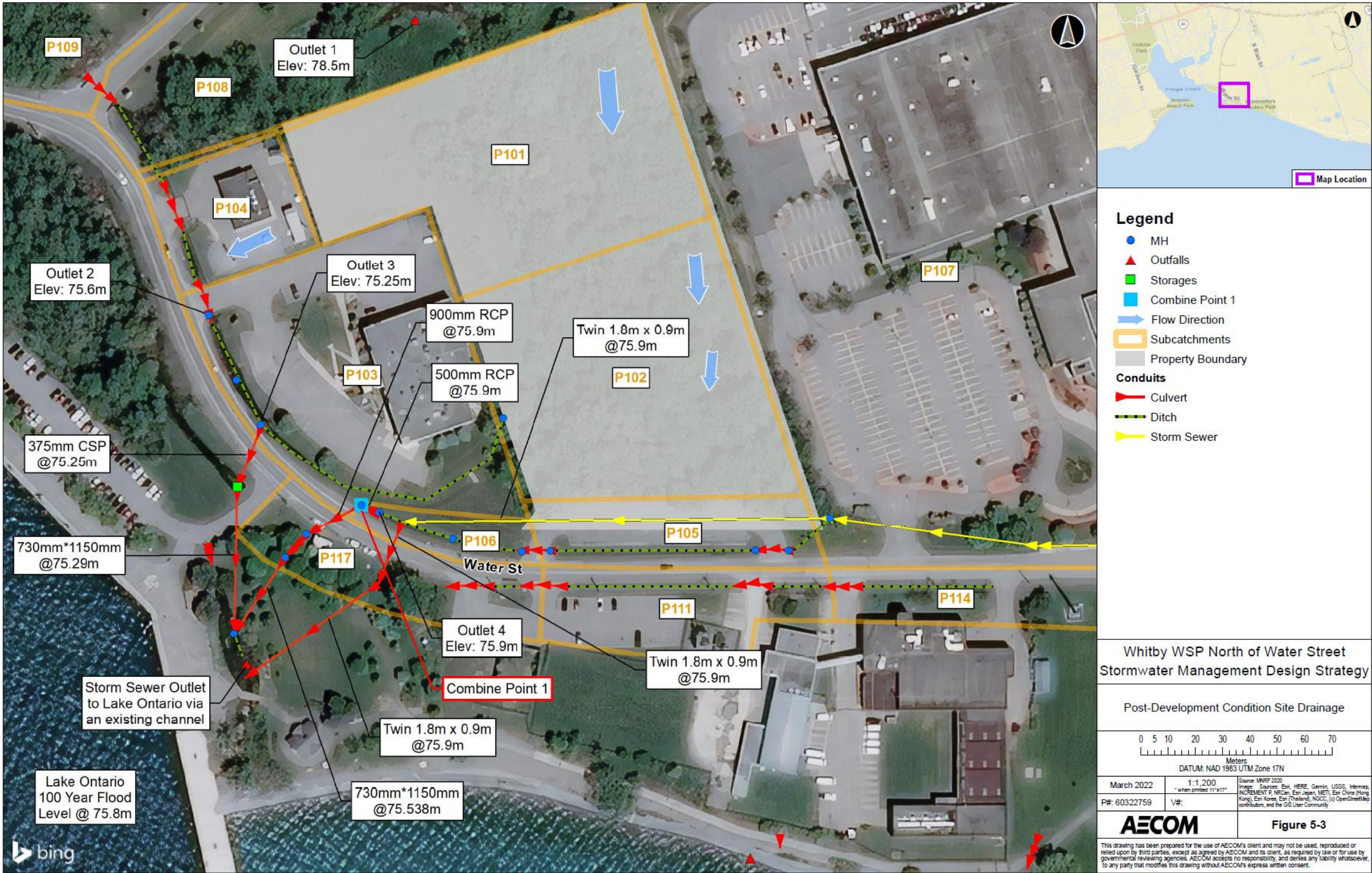
5.1.2.2 Post Development Conditions – 270 Water Street

Three potential site plan layouts were reviewed from a stormwater management perspective for the 270 Water Street site with the preferred having the Energy Centre located at the north-west corner of the subject site as per the proposed site plan described in **Section 3.2**. Based on this layout, the flow from 270 Water Street is conveyed uncontrolled and discharges into a proposed storm sewer that replaces the existing storm sewer within the north Boulevard on Water Street. The proposed storm sewer will replace the existing 750 millimetre pipe from the east property line of 270 Water Street to a new culvert that will convey water from north to south across Water Street and south through a culvert crossing the Rotary Sunrise Lake Park. This culvert will outlet to Lake Ontario via an existing channel. Refer to **Figure 5-3** for the site drainage for the post development proposed infrastructure developments.

The proposed 270 Water Street site plan solution from a stormwater management perspective is preferred as it addresses the Town and Region's needs for:

- Development of the 270 Water Street site during interim configuration 2024-2030, and post 2030 configuration
- Optimizes allocation of space and location of Energy Centre relative to the Region's Breakwater sewage pumping station
- Subject site is located immediately upstream of Lake Ontario, on-site stormwater management controls are not required to reduce peak flows to the outlet
- The Region's expansion of the Whitby Water Supply Plant
- The Town's potential future plans for adding a Parks and Recreation Maintenance/Operations Yard on the property

Figure 5-3: Post Development Condition Site Drainage



- Providing a storm conveyance system that mitigates current flooding issues across Water Street while providing flexibility for the Town's future reconstruction of Water Street, presently subject to a Municipal Class Environmental Assessment study

Refer to **Appendix D** for the summary of the post-development catchment characteristics and peak flow for the 100-year storm event, as well as the wetland area peak flow and runoff volume summary. The post-development site conditions will result in a reduction of runoff to the wetland north of the subject site.

5.1.2.3 Water Street Analysis

Pre-Development Conditions

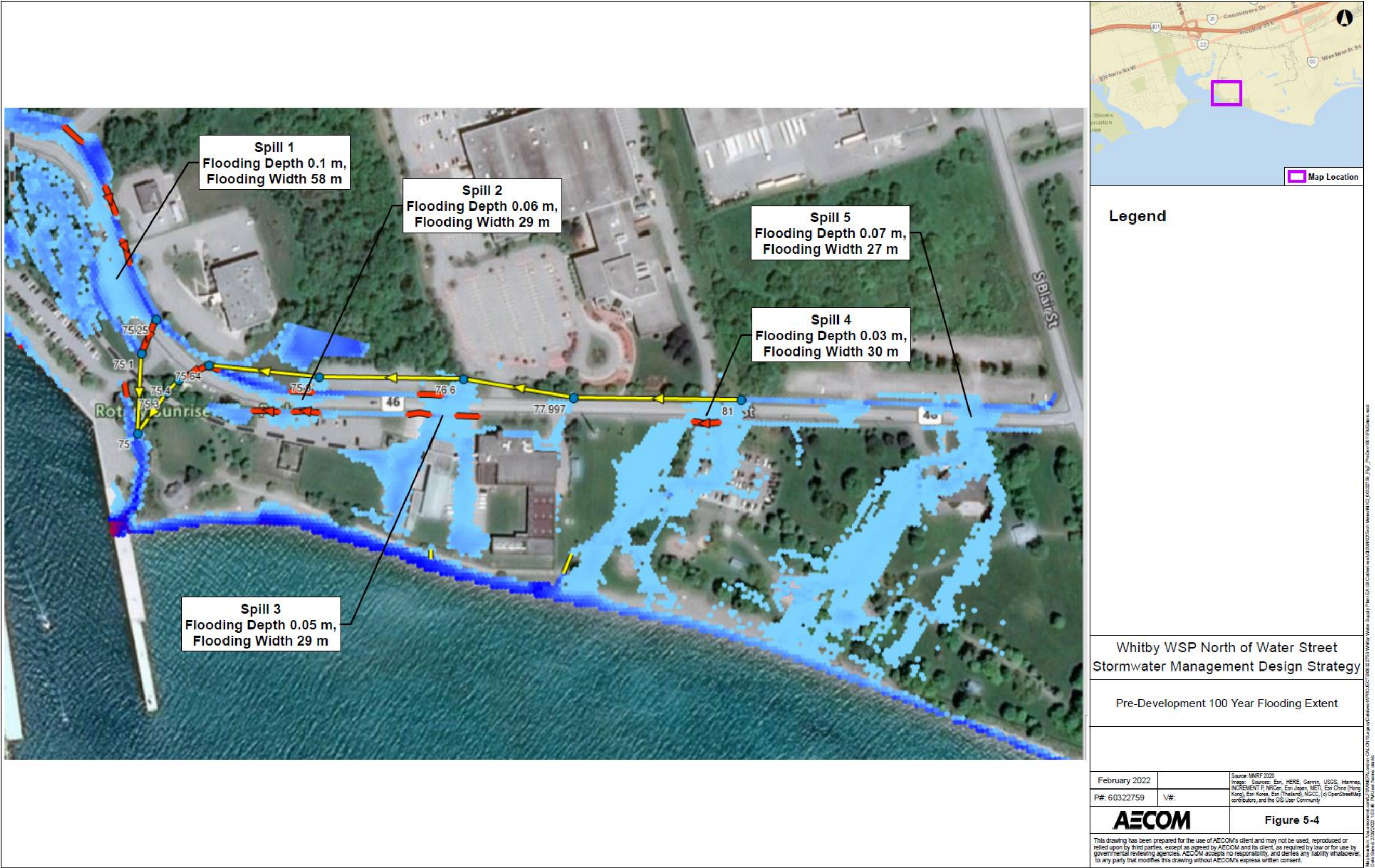
Beyond the 270 Water Street property, a modelling exercise was also completed to assess the existing flooding issues on Water Street. As described above and shown in **Figure 5-2**, there are culvert/storm sewers at three locations, conveying runoff south of Water Street. The three crossings are:

- A 375 millimetre Corrugated Steel Pipe conveying runoff from north to south
- A 500 millimetre Corrugated Steel Pipe conveying runoff from east ditch into the existing manhole
- A 900 millimetre reinforced concrete pipe conveying runoff from the 750 millimetre sewer running within the existing parking lot and also runoff from the 500 millimetre Corrugated Steel Pipe

Under pre-development conditions, Water Street will be overtopped at five locations identified as spill points (refer to **Figure 5-4**) for the 100 year storm event. The 375 millimetre culvert and 500 millimetre Corrugated Steel Pipe culvert reach full flow capacity during the 2-year storm event. The 750 millimetre pipe reaches its full capacity during the 5-year storm event. The 900 millimetre culvert is flowing 86% full flow during the 100-year storm event.

The analysis has identified that Water Street overtops at Spill 1 and Spill 5 during the 2-year design storm event and Spill 4 overtops during the 5-year storm event. Spill 2 and 3 overtop during the 25-year storm event. **Figure 5-4** shows the 100-year flooding under existing conditions.

Figure 5-4: Pre-Development 100 Year Flooding Extent



Post-Development Conditions

Under post-development conditions, which relocates the Energy Centre to the north side of Water Street, the proposed stormwater infrastructure will be undertaken in two phases as shown in **Figure 5-5**.

- **Phase 1:** The existing 750 millimetre storm sewer within north Boulevard on Water Street will be replaced from the east property line of 270 Water Street to a new culvert that will convey water from north to south across Water Street and south through a culvert crossing Rotary Sunrise Lake Park. A twin 1.8 metre (span) x 0.9 metre (rise) box culvert is proposed. This new culvert will outlet to Lake Ontario via an existing channel. This reduces flooding utilizing existing discharge to Lake while protecting vital infrastructure. Phase 1 will be constructed as part of the 270 Water Street development work in order to handle the additional runoff as described in **Section 5.1.2.4**.
- **Phase 2:** As part of the Town of Whitby's Water Street Improvements Municipal Class Environmental Assessment Study, Phase 2 will include extension of the twin box storm sewer further east on Water Street from Phase 1 and then transition to a single 1.8 metre (span) x 0.9 metre (rise) box culvert on Water Street to South Blair Street.

The existing ditch on the north side will remain until Water Street is urbanized and the road drainage will be captured in road catchbasins.

Sensitivity Analysis - Lake Ontario Water Level

A critical aspect is the impact of the Lake level on Water Street flooding. A sensitivity analysis was completed using the lake level of 76.31 metres to account for climate change. Post-development conditions for Phase 1 during the sensitivity analysis show there is an increase in the depth of flooding for Spill 1. Slight increases for depth are seen at Spill 2 and Spill 3 in comparison to the design water level (shown in **Figure 5-4**). Post-development conditions for Phase 2 during the sensitivity analysis show that there is no flooding on Water Street. The flooding seen to the west remains at the same depth as under the existing conditions sensitivity analysis.

The mitigation of flooding issues on Water Street with the proposed storm sewers are maintained even when using the higher lake level used in the sensitivity analysis. The analysis and modelling using the design water level for Lake Ontario of 75.99 metres is appropriate.

Figure 5-5: Post Development Proposed Infrastructure Developments for Water Street



5.1.2.4 Proposed Stormwater Management Plan

The post-development plan for 270 Water Street will include additional impervious area that results in more site runoff compared to pre-development. This impacts the quality and quantity of stormwater runoff from the site into the downstream system. Therefore, a stormwater management strategy is proposed to mitigate the potential impacts of development of the site.

Water Quantity

Quantity control is not required due to the proximity of Lake Ontario. The site will drain uncontrolled to the proposed infrastructure north of Water Street. This will be developed in two phases. In the first phase, flow from the subject site is conveyed uncontrolled and discharges into a proposed storm sewer that replaces the existing storm sewer within the north Blvd on Water Street. The proposed storm sewer will replace the existing 750 millimetre pipe from the east property line of 270 Water Street to a new culvert that will convey water from north to south across Water Street and south through a culvert crossing Rotary Sunrise Lake Park. This culvert will outlet to Lake Ontario via an existing channel. Requirements for energy dissipation to prevent erosion at the culvert outlet are currently being assessed. Phase 1 will be constructed as part of the 270 Water Street development work.

As part of the Town of Whitby's Water Street improvements (Phase 2), the twin box pipe will be extended further east and then transition to a single 1.8 metre (span) x 0.9 metre (rise) box culvert. Major storm inlets will be incorporated into the Water Street design, as required. The existing ditch on the north side in Phase 2 will remain until Water Street is urbanized and the road drainage will be captured in road catch basins. With the implementation of the proposed storm sewers, there is no longer flooding on Water Street even while conveying flow uncontrolled from 270 Water Street.

Water Quality

The water quality target for the project is the long-term average removal of 80% Total Suspended Solids on an annual loading basis from runoff leaving the site. This will be achieved through a "treatment train" approach such as enhanced grassed swales and vegetated buffer strips, where feasible, or by using standalone measures such as oil grit separator filtration unit. However, due to identified soil and groundwater contamination on-site, promotion of infiltration is not recommended as part of a treatment train approach for the site. The detailed assessment of the proposed facilities will be provided in a technical memo as part of the detail design for site plan development.

Water Balance

Water balance is generally achieved by constructing low impact development facilities for infiltration, where practical. Infiltration is not recommended for the site due to the pre-development condition of existing soil and groundwater contamination. It is understood that contaminated groundwater is from an unconfirmed upgradient property, and as such cannot be remediated on this property alone. Therefore, low impact development features that reintroduce precipitation into the groundwater system or promote water balance are not recommended for the site as they could worsen existing conditions down gradient of the site.

5.1.3 Environmental Permits and Approvals

Table 5-4 provides a summary of the anticipated permits and approvals for the proposed works based on the updated project description. Applicable permits and approvals will need to be completed and submitted to the appropriate regulatory agencies prior to construction. No additional permits from those noted below and in the 2018 addendum have been identified based on the updated project description.

Table 5-3: Permits and Approvals

Level of Government	Legislation and Governing Authority	Applicability to the Addendum
Federal	■ Migratory Birds Convention Act, 1994 ■ Environment and Climate Change Canada	■ For any proposed clearing of vegetation within the breeding bird season dates (late March/April through August), or where birds may be suspected of nesting outside of typical dates, an ecologist should undertake detailed nest searches immediately prior to site alternation to ensure no active nests are present to avoid contravention of the Migratory Birds Convention Act. ■ As there are bats present, tree removal should be conducted after October 1st and before the end of March to avoid possible interaction with the bats.
Federal	■ Canadian Navigable Waters Act ■ Navigation Protection Program at Transport Canada	■ A permit is not anticipated to be required under the Minor Works class for Erosion Protection related to the shoreline protections works.
Federal	■ Fisheries Act, 1985 ■ Fisheries and Oceans Canada	■ The twin box culvert is a proposed change to the approved project that will traverse Rotary Sunrise Lake Park at 249 Water Street with increased discharge flows to Lake Ontario, in addition to the shoreline protect works that may impact the Small Craft Harbour program of Fisheries and Oceans, which has ownership of property around Whitby harbour. ■ No in-water work (i.e., any work within the high-water mark) is anticipated at this time. Permitting and easement requirements will be confirmed in consultation with Department of Fisheries and Oceans. ■ A Fisheries and Oceans Canada Request for Review to the Fisheries and Oceans Canada Fish and Fish Habitat Protection Program may be required to be submitted during the Project's detailed design phase well in advance of any works in or near water, including vegetation removal. The Fisheries and Oceans Canada Fish and Fish Habitat Protection Program review will determine the potential for the project to cause the death of fish or the harmful alteration, disruption, or destruction of fish habitat in contravention of the Fisheries Act requiring a Fisheries Act Authorization or, if not, will issue a Letter of Advice for the Project.

Level of Government	Legislation and Governing Authority	Applicability to the Addendum
Provincial	■ Endangered Species Act, 2007 ■ Ontario Ministry of the Environment, Conservation and Parks	■ No endangered or threatened species have been found to use or occur on or adjacent to the 270 Water Street property, as confirmed through the 2014, 2018, 2019 and 2021 seasonal and species-specific field investigations. ■ A Species at Risk screening may be required during detailed design for work related to the new stormwater management infrastructure and shoreline protection works.
Local	■ Conservation Authorities Act and Ontario Regulation 42/06: Central Lake Ontario Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses ■ Central Lake Ontario Conservation Authority	■ Permit required – as per the 2018 addendum, the Project is proposing works within the Central Lake Ontario Conservation Authority regulated area. ■ As part of this current addendum, the proposed development and site alteration for 270 Water Street necessitates the removal of the wetland on site and may affect adjacent wetland offsite. ■ To replace the function of the wetland removed, compensation will be provided as agreed to with Central Lake Ontario Conservation Authority. ■ In terms of the shoreline protection works in front of the existing Whitby Water Supply Plant, the Region will ensure that the building and surrounding property are fortified / safeguarded against erosion associated with Lake Ontario in accordance with the 2018 addendum commitments (Section 7). ■ Permits will be submitted in accordance with the corresponding construction contracts during detailed design, as required.

5.2 Socio-Economic Environment

5.2.1 Land Use

There is change to the impacts to the socio-economic environment as previously described in the 2018 Municipal Class Environmental Addendum study. This includes a new storm sewer (twin box culverts) through Rotary Sunrise Lake Park.

In terms of land use, there have been updates to the planned development and infrastructure projects within and beyond the study area. Since the filing of the 2018 addendum, the proposed Convention Centre / Hotel and plans repurpose the old stone pump house building as a restaurant, including roof top patio are no longer moving forward. There may be potential for other uses for the old stone pump house building in the future.

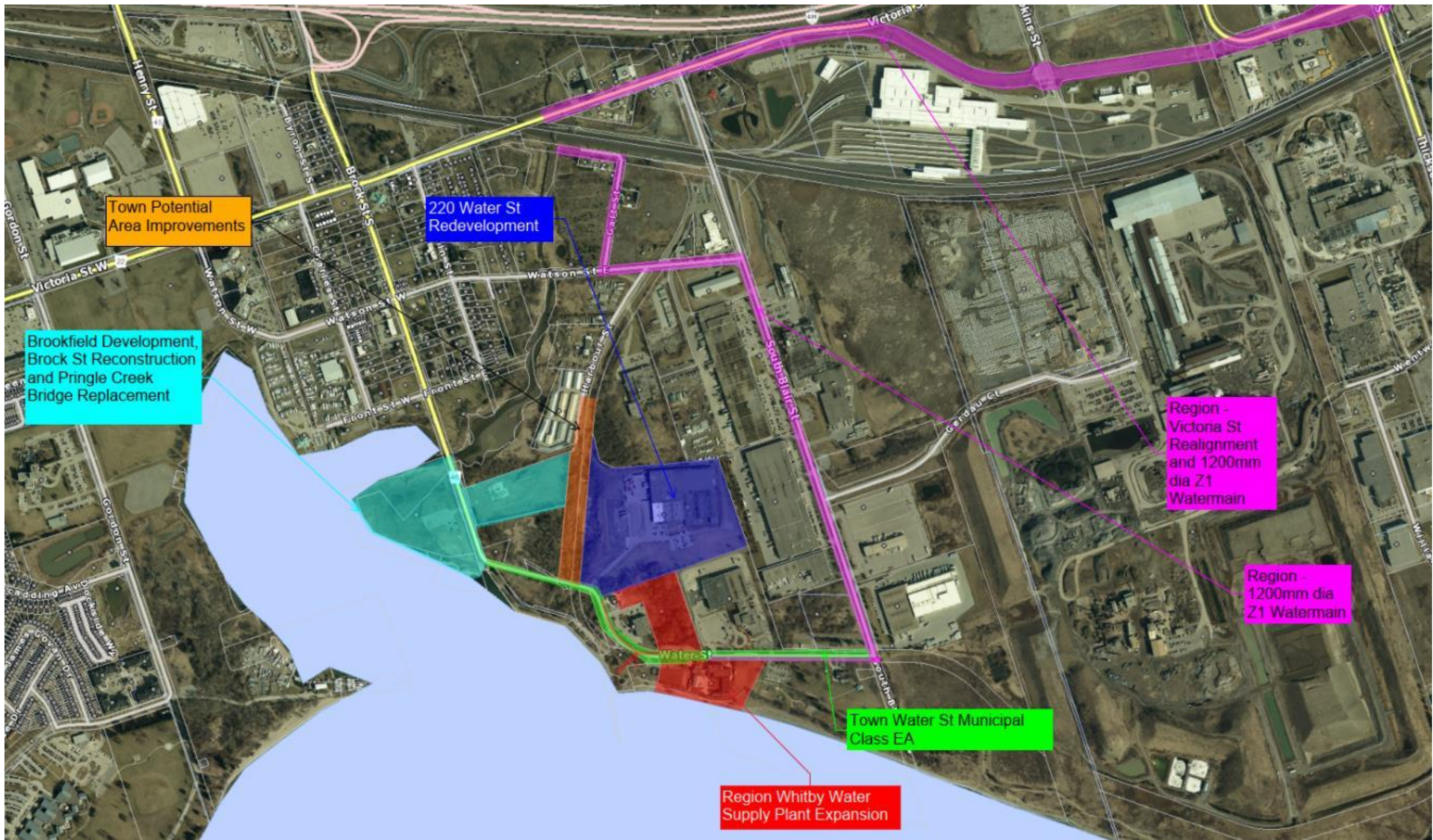
In addition, **Figure 5-6** identifies various other larger ongoing projects in South Whitby at the time of this publication, some of which were also identified in the 2018 addendum:

- 220 Water Street development
- Town of Whitby led Potential Area Improvements on Harbour Street
- Brookfield Development
- Brock Street Reconstruction
- Pringle Creek Bridge Replacement
- Town of Whitby Water Street Municipal Class Environmental Assessment study
- Durham Region Victoria Street Realignment and 1200 millimetre diameter watermain

5.2.2 Estimated Capital Cost

At the time of this publication, the updated estimated capital cost based on the conceptual work done to date to construct the Whitby Water Supply Plant, including the relocation of the Energy Centre component is estimated to be \$248 million, in 2023 dollars, excluding HST. The capital cost estimate will be updated and revised as needed as the design work progresses.

Figure 5-6: Ongoing South Whitby Projects



5.3 Climate Change

Climate change in terms of mitigation and adaption was considered in support of the 2018 approved project description. Additional details have been added below based on the relocation of the Energy Centre to 270 Water Street.

Table 5-4: Consideration of Climate Change for 270 Water Street

Consideration	Review of 270 Water Street
Climate Change Mitigation	■ Proposed Energy Centre design to minimize energy use, incorporate green design principles including high performance building (where possible) and incorporate enhanced stormwater management – Low Impact Development (where possible). ■ Proposed Energy Centre provides a standby power source in the event of temporary loss of power (e.g., disruption to hydro transmission grid or network). ■ Loss of trees, wetlands and Natural Heritage System related to 270 Water Street has been addressed through completion of an Environmental Impact Study (identify mitigation and compensation) and to the satisfaction of Central Lake Ontario Conservation Authority. Compensation will be provided to ensure there is no net loss of natural cover.
Climate Change Adaptation	■ High lake levels, potential flooding – Stormwater management report included a lake level sensitivity analysis that confirmed mitigation of flooding on Water Street in area of Water Supply Plant including 270 Water Street. Potential for flooding to be addressed at preliminary and detailed design by developing a flood proofing strategy for the proposed Energy Centre in addition to the Water Supply Plant facility itself. ■ Secured parking area will be provided on the 270 Water Street lands that will be shared between the Region and the Town of Whitby fleet vehicles (utility vans and pick up trucks). All vehicles will be assumed to be electric powered with provisions for Electric Vehicles (EV) charging stations including a roof canopy that will provide solar energy production.

5.4 Cultural Heritage Environment

As described in **Section 5.1.2.3**, a new twin 1.8 metre (span) x 0.9 metre (rise) box culvert through the Rotary Sunrise Lake Park is proposed in support of the Whitby Water Supply Plant expansion. This land was not included in the original Stage 1 and 2 archaeological assessments. A combined Stage 1 and 2 archaeological assessment (and further assessments, if recommended) will be completed prior to or during the early phases of detailed design.

The built heritage resources and cultural heritage landscapes potentially impacted by the undertaking as proposed in the current Addendum are accounted for in the Heritage Impact Assessment (HIA) prepared for the 2018 Addendum.

The 2018 Heritage Impact Assessment indicated there will be no direct impacts to the heritage attributes or cultural heritage value identified for the 1904 Pump House structure. However, it is likely that the proposed Water Supply Plant expansion may overshadow the 1904 pumphouse. The Heritage Impact Assessment provided a combination of mitigation measures for the potential visual impacts of the new Water Supply Plant facilities on the adjacent 1904 pumphouse:

- Sympathetic Design of new construction
- Commemoration/Interpretation of the 1904 pumphouse
- Landscape interpretation, including the Waterfront Trail Restoration

The Town of Whitby also identified the former Port Perry and Port Whitby Railway/Canadian National Rail Corridor, also known colloquially as the “nip n tuck” railway as a potential Cultural Heritage Landscape east of Brock Street South. The Corridor runs west of the proposed expansion area, therefore this feature is not anticipated to be potentially impacted by the proposed Water Supply Plant expansion.

There are no others changes to the impacts to the cultural heritage environment, as previously described in the 2018 Municipal Class Environmental Addendum study.

5.5 Technical Environment

With the exception of the potential change to Water Supply Plant filtration to gravity-driven membranes described in **Section 3.2**, there is no change to the impacts to the technical environment as previously described in the 2018 Municipal Class Environmental Addendum study beyond the proposed stormwater infrastructure improvements described in **Section 5.1.2**.

6. Potential Environmental Impacts and Mitigation Measures for the Proposed Changes

Based on the proposed changes described in **Section 3.2** and associated implications identified in **Section 5**, enhanced mitigation and compensation measures are needed to address both known and potential environmental impacts related to the relocation of the Whitby Water Supply Plant Energy Centre from the south side to the north side of Water Street. Construction is expected to have varied environmental impacts. The proposed Energy Centre development will require the removal of the meadow, wetland, and cultural woodland communities from 270 Water Street. By incorporating proper best management practices and construction techniques, adverse construction related impacts can be minimized. In order to address potential impacts, the following approach was taken:

- **Avoidance:** The first priority is to prevent the occurrence of negative or adverse environmental impacts associated with proposed changes to the Project
- **Mitigation:** Where adverse environmental impacts cannot be avoided, it will be necessary to develop appropriate measures to eliminate, or reduce to some degree, the negative impacts associated with the proposed changes to the Project
- **Compensation:** In situations where appropriate mitigation measures are not available, or significant net adverse impacts will remain following the application of mitigation measures, compensation measures may be required to counterbalance the negative impacts through replacement in kind, or provision of a substitute or reimbursement. Compensation is being proposed for the Project.

The mitigation and compensation measures hereafter are specific to this addendum and the proposed changes and are recommended to ensure that any short and long-term disturbances are efficiently managed and appropriately compensated for, as required.

The potential impacts and mitigation identified below will be reviewed during the preliminary and detailed design phases of the Project.

6.1 Natural Environment

The proposed development will require the removal of the meadow, wetland, and cultural woodland communities. Given the proposed land use (i.e., Energy Centre) and removal of all natural vegetation from the subject property at 270 Water Street, additional natural environment potential impacts are limited to those on adjacent properties.

6.1.1 Birds

The loss of the meadow, wetland and cultural woodland habitat will result in the loss of habitat for a number of common breeding birds in the area. Given the habitat remaining in the park south of Water Street, and the surrounding area, it is likely that the species will remain breeding in the area, but the numbers of territories will decline.

The urban-tolerant species observed on the property (such as Mourning Dove, American Robin, and European Starling) will likely remain post-development. It is possible that additional urban-tolerant species such as Common Grackle (*Quiscalus quiscula*) will occur post-development.

The removal of the existing vegetation will remove a relatively small area of habitat for migrant birds in the autumn and spring due to its proximity to the lake.

6.1.2 Vegetation Communities

The proposed development necessitates the removal of the meadow, wetland, and cultural woodland. Each community is comprised of several non-native and invasive species (e.g., Manitoba Maple, Common Buckthorn and Dog Strangling Vine). The frequently encountered regionally uncommon species will be removed, none of species were found in large quantities on the site and none are regulated.

Tree protection and preservation measures shall be provided in advance of construction and in compliance with the requirements of the Town of Whitby Tree Protection Requirements for New Development.

6.1.3 Wetlands

The wetland on the 270 Water Street property is young, includes a proportion of non-native species, does not provide amphibian breeding habitat, and occurs in isolation from watercourses or shoreline inputs. As the entire wetland will be removed, these vegetation communities and species will be lost from the site. However, none of the wetland communities (willow swamp thicket and willow deciduous swamp) are listed as

uncommon or rare nor are they uncommon in the landscape. The water absorption function will be replaced with a controlled stormwater management system that will reduce additional water from accessing the existing contaminated groundwater.

Further to comments from the Central Lake Ontario Conservation Authority, the wetland was examined to determine whether it could meet criteria to be considered a 'coastal wetland' and whether it should be complexed with the Whitby Harbour Provincially Significant Wetland. The wetlands in the Whitby Harbour area were examined for complexing and re-evaluated by the Ministry of Natural Resources and Forestry (MNRF) in consultation with the Town of Whitby. Through this exercise the wetland on the 270 Water Street property and the adjacent wetland to the north were specifically not included in the provincially significant wetland complex by the MNRF due to various reasons including their Official Plan designation and zoning, the Town's proposed development and presumably, technical reasons relating to the Ontario Wetland Evaluation System.

Furthermore, the wetland on the 270 Water Street property is not hydrologically connected to any of the other units of the provincially significant wetland complex and it outlets to the lake via roadside ditches and a culvert. The wetland is therefore neither a 'coastal wetland' nor part of the provincially significant wetland complex; it is an unevaluated wetland.

The wetland on the 270 Water Street property extends on to the adjacent property to the north, which is also a small, isolated wetland that is not hydrologically connected to the provincially significant wetland or the lake. AECOM (2021) advises that approximately 14% of the catchment of the wetland to the north will be removed because of the development of the 270 Water Street property. It is more land-efficient to remove this area of catchment, then maintain grade of this relatively small portion of the site to the north.

6.1.4 Stormwater Management

The post-development plan for 270 Water Street will include additional impervious area that results in more site runoff compared to pre-development. This impacts the quality and quantity of stormwater runoff from the site into the downstream system. Therefore, the stormwater management strategy described in **Section 5.1.2** is proposed to mitigate the potential impacts of development of the site (i.e., 270 Water Street).

6.1.5 Excess Materials Management

Activities involving the management of excess soil should be undertaken in accordance with O. Reg. 406/19: On – Site and Excess Soil Management.

6.1.6 Other General Natural Environment Mitigation Measures

Timing

Legislation (such as the federal *Migratory Birds Convention Act* and the provincial *Fish and Wildlife Conservation Act*) protects the nests, eggs and young of bird species from harm or destruction. While the breeding bird season in southern Ontario is generally from late March/April through August, nests occurring at any time are subject to the requirements of the legislation. For any proposed clearing of vegetation within these dates, or where birds may be suspected of nesting outside of typical dates, an ecologist should undertake detailed nest searches immediately prior to site alteration to ensure that no active nests are present.

As there are bats present, tree removal should be conducted after October 1st and before the end of March to avoid possible interaction with the bats.

Compensation

The Region has committed to providing like-for-like strategic compensation for the removal of habitat. Details regarding compensation will be provided in a forthcoming Compensation Plan and will be discussed with Central Lake Ontario Conservation Authority.

Consideration will be given to both land base and feature function. A viable location and conceptual proposal that demonstrates a net ecological benefit will be undertaken in advance to confirm there is a plan in place that maintains and contributes to achieving the Region's woodland cover target of 30%.

Building Construction

Given the high use of the area by migrant birds due to its proximity to the lake, the proposed Energy Centre should implement the use of non-reflective surfaces to reduce (or eliminate) collisions by migrating birds. Additional landscaping considerations could include limiting trees and shrubs within 10 metres of glass to further reduce bird strikes and mortality, for example.

6.2 Socio-Economic Environment

6.2.1 Noise, Odour and Air

Noise, vibration and dust impacts from the Energy Centre are to be mitigated as per the recommendations in Table 4 of the 2018 addendum report (**Appendix B**):

- Prepare construction noise and vibration mitigation plan at detailed design.
- Construction operations will be restricted to the day shift (wherever possible). In addition, the contractor will be required to adhere to local noise by-laws.
- To address construction related vibration impacts on nearby buildings, pre-construction surveys will be completed prior to construction. The surveys will document existing building conditions, as well as identify sensitive structures to be considered during construction.
- Dust control by spraying water, street sweeping.
- Install hoarding (fencing) around the perimeter of construction site and compounds.

Odours are not anticipated. Air quality will be addressed through the ECA approvals process.

6.2.2 Property

The Town of Whitby has agreed to provide the land (270 Water Street) required for the proposed Energy Centre and supports the proposed 270 Water Street site plan in addition to the proposed storm sewer through Rotary Sunrise Lake Park. Operation of Businesses and Institutions, including Access

Adjacent businesses and institutions will continue to operate and have access. The Region will provide advanced notification ahead of construction. General project information and updates will be provided through the Region's website.

Access disruption to the realignment/relocation of the existing Waterfront Trail (east side of new operations building) in addition to a temporary realignment of the trail from the lake to allow construction and ensure public safety will be mitigated. Similar to the mitigation measures from Table 4 of the 2018 addendum report (**Appendix B**), the Region will:

- Minimize duration of trail closure to the extent possible
- Add Signage/fencing and trail detours
- Notify public and trail user

In addition, the proposed twin box culvert through Rotary Sunrise Lake Park and the shoreline protection works may impact the Small Craft Harbour program of Fisheries and Oceans, which has ownership of property around Whitby harbour. The Region will work with Department of Fisheries and Oceans to address any property related requirements through the detailed design process.

6.2.3 Land Use – Existing and Proposed or Planned Development/Infrastructure Improvements

The new up-sized storm sewer (new twin 1.8 metre span x 0.9 metre rise culvert) through Rotary Sunrise Lake Park will result in the temporary closure of the park and will require restoration in consultation with the Town of Whitby. As noted above (**Section 6.2.2**), consultation with Department of Fisheries and Oceans will also be required to confirm the associated permitting and approval requirements for the proposed twin box culvert.

The proposed Energy Centre, including Water Supply Plant expansion is not anticipated to impact the proposed or planned developments or infrastructure improvements identified in **Section 5.2.1**.

6.2.4 Aesthetics

Relocation of the Energy Centre to the north-west corner of 270 Water Street significantly minimizes visual impacts along the waterfront, allowing an open space buffer to be maintained for the park space beside the Water Supply Plant

Visual impacts from the proposed Energy Centre on adjacent properties (e.g., 220 Water Street) will be addressed through careful siting of the main building to shield the standby power equipment amongst other strategies to be developed during detailed design.

6.3 Climate Change

Refer to **Section 5.3** for the high level overview of Climate change with respect to the proposed changes to the project. Climate change and adaptation will be considered through the design process.

6.4 Cultural Heritage Environment

A combined Stage 1 and 2 archaeological assessment (and further assessments, if recommended) will be undertaken prior to or as early as possible during the design phase prior to any ground disturbing activities associated with the construction footprint for the new twin 1.8 metre (span) x 0.9 metre (rise) culvert through the Rotary Sunrise Lake Park as this area has not been previously cleared of archaeological concern.

Where archaeological resources are impacted by the proposed project work, the Ministry of Citizenship and Multiculturalism will be notified by contacting archaeology@ontario.ca. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately, and the local police and coroner must be contacted. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at archaeology@ontario.ca) to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act

In addition to the above, the 2018 Heritage Impact Assessment completed in support of Addendum No. 1 provided a combination of mitigation measures for the potential visual impacts of the new Water Supply Plant facilities on the adjacent 1904 pumphouse:

- Sympathetic Design of new construction
- Commemoration/Interpretation of the 1904 pumphouse
- Landscape interpretation, including the Waterfront Trail Restoration

The pumphouse is also located within 50 m of the proposed new twin 1.8 metre (span) x 0.9 metre (rise) culvert through the Rotary Sunrise Lake Park and has the potential to be indirectly impacted by vibration resulting from construction activities. Vibration monitoring should be undertaken pre, during and post construction to confirm no vibration impacts are incurred during construction. There are no other changes to the mitigation to the cultural heritage environment as addressed in the 2018 Municipal Class Environmental Addendum study, including the 2018 Heritage Impact Assessment.

6.5 Technical Environment

6.5.1 Traffic Management

A traffic management plan will be developed and implemented as part of an overall co-ordinated construction management plan with the Town of Whitby to ensure public safety is maintained and disruptions to the traveling public are minimized to the extent possible. This includes relocating and realigning the Waterfront Trail as accepted by the Town of Whitby.

7. Addendum Commitments

Table 7-1 summarizes the status of the 2018 Municipal Class Environmental Assessment Addendum commitments, several of which are applicable to the north side of Water Street.

Table 7-1: 2018 Addendum Commitments

Theme	2018 Commitment	Current Status
Natural Environment	■ Work with Central Lake Ontario Conservation Authority/ Ministry of Northern Development, Mines, Natural Resources and Forestry to address potential impacts to wetlands on north side of Water Street. The Region recognizes that the actual number of new parking spots will be determined once the EIS (to be completed in Spring 2018) is completed and accepted by Central Lake Ontario Conservation Authority/ Ministry of Northern Development, Mines, Natural Resources and Forestry.	■ The Environmental Impact Study (Appendix C) has been prepared and the Central Lake Ontario Conservation Authority has had the opportunity to review and comment on the document. ■ The number of parking spaces at the time of this publication is a minimum of 88 parking spots. This number will be reviewed and confirmed at the preliminary and detailed design phase of the Project.
Natural Environment	■ As per the Central Lake Ontario Conservation Authority October 23, 2017 letter (see Appendix E3 of the 2018 addendum) parts of the existing Water Supply Plant building and proposed Water Supply Plant expansion buildings fall within Central Lake Ontario Conservation Authority Lake Ontario Erosion Hazard Limit. To mitigate this as part of detailed design, all regulatory requirements to protect the environment will be followed. ■ The Region commits to ensure that a flood proofing strategy is developed for the proposed Water Supply Plant facility and that the building and surrounding property are fortified / safeguarded against erosion associated with Lake Ontario.	■ Commitment carried forward as part of this current addendum. ■ A coastal review is being undertaken for the Project to inform the design of the Water Supply Plant and Waterfront Trail along the shoreline and in front of the Water Supply Plant.
Natural Environment	■ A tree protection and replanting plan is to be prepared by an arborist.	■ Commitment carried forward as part of this current addendum.

Theme	2018 Commitment	Current Status
Natural Environment	Tree removal occurs outside of the breeding bird window.	Commitment carried forward as part of this current addendum.
Social Environment	Traffic management plan will be developed to minimize disruption during construction. All construction traffic will use designated haul routes.	Commitment carried forward as part of this current addendum.
Social Environment	Water Supply Plant building design and landscaping will consider waterfront setting and uses, including old stone pump house. The Town, including heritage planning staff and the Whitby Heritage Committee will also be consulted as the Water Supply Plant design moves forward.	- Commitment carried forward as part of this current addendum. - The Town has been consulted on the Project, including proposed relocation of the Energy Centre to 270 Water Street that is being addressed by this report.
Social Environment	Access disruption to Waterfront Trail will be addressed by building a new trail around the Water Supply Plant along Water Street. The new trail will link east and west side parks and will remain as an alternate trail, in the event that the Waterfront Trail boardwalk is closed (e.g., winter ice).	Commitment carried forward as part of this current addendum.
Social Environment	Access to existing park amenities, businesses, institutions and commercial areas are maintained (where possible) during and after construction.	Commitment carried forward as part of this current addendum.
Social Environment	Development of additional public parking on the north side of Water Street.	Public parking on the north side of Water Street (270 Water Street) has been reviewed and the current number of parking spaces is 88 as per the ultimate site plan. This number will be reviewed and confirmed at the preliminary and detailed design phases of the Project.
Restoration	All disturbed areas, including Waterfront Trail boardwalk and construction compound areas, will be restored to existing or better conditions.	- The Town has agreed to the proposed stormwater management plan, including new storm sewer through Rotary Sunrise Lake Park. - Commitment carried forward as part of this current addendum.

Theme	2018 Commitment	Current Status
Design Charrette	■ In addition to the commitments above, as per Durham Region's December 5, 2017 letter to the Town of Whitby (see Appendix E2 of 2018 Addendum), the Region commits to complete a design charrette process following the completion of filing the EA Addendum and conclusion of the 30 public review.	■ The Design Charrette took place in 2018 as described in Section 1.1 .
Indigenous Consultation	■ Mississaugas of the Credit First Nation will receive a copy of the environmental memo and previously completed archaeological reports, including archaeological clearance with Notice of Completion.	■ The requested documentation was circulated via email on January 8, 2018.
Indigenous Consultation	■ Hiawatha First Nation and Curve Lake First Nation will be contacted should archaeological artifacts be found.	■ Commitment carried forward as part of this current addendum.

In addition to the above table, additional commitments have been identified as part of this current Municipal Class Environmental Assessment addendum and are summarized below.

Natural Environment

- Once a site plan has been finalized for the Town of Whitby's use for the 270 Water Street site beyond 2028, a technical memo will be prepared outlining the detailed design of SWM measures on the 270 Water Street site for Site Plan Approval and Central Lake Ontario Conservation Authority Permitting. A separate technical memorandum will be prepared for the detailed design of SWM measures for the eventual Water Supply Plant Expansion component

A Stormwater Management design strategy will be developed for the south side of Water Street.

The following summarizes the Region's overall commitment to Central Lake Ontario Conservation Authority:

Through the project planning process, the Region has engaged Central Lake Ontario Conservation Authority at a number of points to provide the project rationale including how and why the 270 Water Street property was identified for the proposed Water Supply Plant infrastructure as part of a major expansion to support the expected development growth within Whitby, Oshawa and Courtice. The Region determined this site to be suitable as it is publicly owned, is adjacent to the existing

Water Supply Plant, is within the Urban Area of the Town; avoids visual impact to the waterfront park system; and is considered a compatible land use being identified as “Prestige Industrial” in the Town’s Official Plan. In addition, the Region has provided the project rationale for how the entire property is planned to be developed by the Region, the Town of Whitby and Elexicon, which includes the Water Supply Plant Energy Centre, Elexicon sub-station for local area, shared secured parking area for maintenance fleets, Town public parking and future Town redevelopment (i.e. Parks and Recreation Maintenance Yard). This in turn has allowed for the consolidation of key infrastructure and a holistic assessment of potential impacts and identification of mitigation measures, and as a last resort, compensation.

As noted by Central Lake Ontario Conservation Authority in its follow up email (dated June 2, 2022) to a meeting held on May 13, 2022, the Region intends to move forward with removal of the wetland/woodlot features at 270 Water Street through the Environmental Assessment (EA) process, regardless of the status of the wetland and as permitted through the EA process. Central Lake Ontario Conservation Authority also notes that as discussed at the May 13, 2022 meeting, prior to removal of features the nature of the loss must be properly understood and adequately compensated. To that end the Region and its consultant Beacon decree that the final EIS provides sufficient information and analysis to document what will be lost in terms of wetland and woodlot features and functions and can be used to guide the compensation strategy and plan moving forward.

The Region is committed to working through the post EA Addendum design phase with Central Lake Ontario Conservation Authority to ensure that the compensation strategy and plan to address the loss of wetland and woodlot features includes:

1. Adequately addressing the loss of ecological and hydrological functions on the 270 lands.
2. Achieve “like for like” compensation based on function (i.e., replace tree wetland with woodland near the shoreline to support migratory birds) in an area that will maximize the efficacy of the compensation (i.e., provide trees/create woodland in a nearby area of the shoreline that is not currently wooded).
3. Include ecological function (i.e., enhance migratory bird stop over habitat through feature replacement) as the basis for a compensation plan.
4. Assess opportunities for wetland improvement and/or new construction within the local area as compensation.

A key ecological function of the proposed compensation is to create woodland adjacent or near the shoreline to provide habitat for migratory birds. The Region’s

proposed compensation strategy to replace and enhance this function through the re-forestation of Thickson's Point will improve on the migratory bird habitat associated with the subject property due to its larger size and strategic location of a shoreline point of land, away from industrial land uses. In addition, the Region is proposing, in partnership with Central Lake Ontario Conservation Authority, to create a planting/compensation plan for the Thickson's Woods to Heydenshore Park shoreline of Lake Ontario which is a remarkable and unique opportunity that will resonate immensely with stakeholders and result in enhanced ecological function (Thickson's Woods to Heydenshore Park Compensation Plan). These strategies align with the Region's thinking for vision and innovation and recognizes what the EIS identifies as the most impactful opportunity. The additional benefit of educational opportunities and for having a mechanism for future projects to contribute in a systematic and meaningful way only reinforce the Region's proposed strategy as an offer that is in a class all by itself. We note that already the Town has expressed an interest in partnering with the Region through this strategy to explore compensation opportunities for the Harbour Street extension.

The Region is not proposing to include wetland compensation within the 270 lands themselves as the space identified by Central Lake Ontario Conservation Authority is currently proposed for the future Town redevelopment. The Region requires the use of the entire property on a long-term interim basis to support the construction of the Water Supply Plant, and the Town has identified that they require the lands for their future use. As such the proposed compensation strategy and plan should provide compensation for the ecological features of the entire 270 Water Street property in another suitable location. Thickson's Point is arguably more suitable than compensation on the subject property as it is larger, more closely situated to the shoreline and provides a lateral connection along the shoreline between Corbett Creek and Thickson's Woods to Gordon Richards Park and Heydenshore Park to the west. The Region, in association with the Town, will investigate all options to compensate starting with the suggested opportunities in its June 2, 2022 email.

To summarize, the Region and Town require the entire 270 Water Street property for industrial - infrastructure uses as contemplated in the Town's Official Plan. Through the post EA Addendum design phase, the Region will demonstrate how compensation opportunities can be maximized to provide the most effective compensation function and value. This strategy/plan also aligns with the Region's current Regional Official Plan update (Envision Durham – Municipal Comprehensive Review). When approved (2022/2023) it will comply with the Ontario Provincial Policy Statement by including policies for natural heritage system planning best practices that recognizes the strategic importance of a systems-based approach to

protecting, restoring and enhancing the natural environment by not only considering core natural features, but also the connections between. The new Official Plan will also include an ecosystem compensation policy that allows ecosystem compensation only as a last resort when mitigation and avoidance are not possible, and/or when the removal of natural heritage features are permitted (e.g., through the EA process) as in the case for the 270 Water Street property.

The Region looks forward to working with Central Lake Ontario Conservation Authority in drafting and implementing the Thickson's Woods to Heydenshore Park Compensation Plan to enhance the ecological functions and public use of the Lake Ontario shoreline in Whitby.

The Region recognizes that the discussions and correspondence with the Central Lake Ontario Conservation Authority to date (Central Lake Ontario Conservation Authority October 12, 2022 letter response and Durham Region January 10, 2023 letter response) regarding the proposed approach to compensation for the removal of the wetland features on the 270 Water Street property are ongoing at the time of the publication of this addendum report. The Region is committed to continuing dialogue regarding the wetland features and collaboratively working together with Central Lake Ontario Conservation Authority through the design phase of the Project with the goal to ultimately present an agreed upon compensation approach to the Central Lake Ontario Conservation Authority Board of Directors that will support the Central Lake Ontario Conservation Authority permit and approval phase.

- The Region will review the potential need for a Record of Site Condition with the landowner of 270 Water Street (the Town of Whitby), including consultation with the ministry's York-Durham District Office during the design phases of the Project.

Indigenous Consultation

- The Region of Durham has entered into an agreement with Curve Lake First Nation and is committed to on-going consultation on the Project with Curve Lake First Nation during preliminary and detailed design.

Department of Fisheries and Oceans

- The Region will confirm and address the permitting and approval requirements identified by Department of Fisheries and Oceans related to the Small Craft Harbour property holdings during detailed design.

Adjacent Property Owners

- The Region of Durham will keep the adjacent property owners informed as the design progresses.

Cultural Heritage Environment

- A combined Stage 1 and 2 archaeological assessment (and further assessments, if recommended) will be completed prior to or during the early phases of detailed design for the Phase 1 storm sewer infrastructure (twin box culvert) through Rotary Sunrise Lake Park (249 Water Street).

8. Consultation Summary on the Proposed Changes

The following summarizes the consultation activities undertaken to inform and/or engage interested and affected stakeholders, review agencies, Indigenous Communities and members of the public thereby helping inform the decision-making process.

8.1 Notification

A Notice of Filing of Addendum was first issued on April 27, 2023. The notice specified where to access the addendum documentation and the procedure for providing written comments during the 30 day comment period. The following describes the methods by which the notice was distributed:

- Advertised in the Pickering, Ajax, Whitby, Oshawa and Clarington This Week newspaper on April 27, 2023 and May 4, 2023.
- Published on the Region's website (durham.ca/WhitbyWSP)
- Issued to the study's contact list

Refer to **Appendix E** for a copy of the Notice of Filing of Addendum.

A notice of Municipal Class Environmental Assessment Addendum was not issued and is not a mandatory contact point as per the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011, 2015 and 2023). As noted in **Section 8.2**, the Region elected to directly engage key stakeholders.

8.2 Public Consultation

A Public Information Centre (PIC) was not undertaken for this addendum and is not a mandatory point of contact as per the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011, 2015 and 2023). The Region elected to directly engage key stakeholders on the proposed changes to the approved Project prior to filing this second addendum to the original ESR. There was also two in-person Public Information Centres hosted in support of the initial 2018 addendum with no major concerns documented from the public.

Members of the public and anyone interested in the Project were provided the opportunity to provide feedback on the proposed changes once the addendum was filed for public review. No comments were received from the general public during the 30-day review period provided for in the Notice of Filing of Addendum.

8.3 Agency and Stakeholder Consultation

The 2018 addendum contact list was reviewed and updated, as needed. Refer to **Appendix E** for a copy of the contact list. Among the key agencies and stakeholders consulted on the proposed changes were the Town of Whitby, Central Lake Ontario Conservation Authority and adjacent Water Street property owners. Engagement has also been initiated with Department of Fisheries and Oceans to confirm any requirements or concerns related to the Small Craft Harbour property holdings.

8.3.1 Town of Whitby

As a project partner, the Town of Whitby was regularly engaged throughout the project design, including 270 Water Street site plan development and approach to stormwater management as well as co-ordination with planned Town projects. Town staff also kept their senior leadership team informed of the project design development, particularly how Lakeside Park and Kiwanis Heydenshore Park may be impacted by managing stormwater during the construction and post construction phase.

The Town has accepted the proposed stormwater management design strategy solution in principle with conditions/comments, as noted in the April 6, 2022 correspondence (**Appendix E**).

Further to the above, the Town of Whitby Council was provided an update in Spring 2022 regarding the overall Whitby Water Supply Plant expansion project, including the 270 Water Street Site Plan. The Project was also be discussed at a Town of Whitby Council meeting planned for Spring 2023.

The Town provided comments during the 30-day review period for the filing of this addendum. Concerns were raised regarding tree protection and compensation, built heritage resources (Pump House and the former Port Perry and Port Whitby Railway/Canadian National Rail corridor), implementation of a Level 2, Type C Pedestrian Crossover to provide a controlled crossing for pedestrians for the ultimate site plan for 270 Water Street, and parking lot maintenance. A copy of the detailed comments and responses are appended to the consultation record (**Appendix E**).

8.3.2 Central Lake Ontario Conservation Authority

Central Lake Ontario Conservation Authority has been a key stakeholder for the project. Meetings have been held with Central Lake Ontario Conservation Authority to discuss the proposed changes to the Project for the 270 Water Street development, including review of the Environmental Impact Study and discussions regarding potential compensation.

The Central Lake Ontario Conservation Authority correspondence is summarized below in **Table 8-1**. **Table 8-2** summarizes the meetings held with Central Lake Ontario Conservation Authority and the Study Team. Refer to **Appendix E** for the record of correspondence.

Table 8-1: Central Lake Ontario Conservation Authority Key Correspondence

Correspondence Date	Summary of Central Lake Ontario Conservation Authority Comments	Summary of Study Team Response
October 19, 2021	■ Provided wetland mapping for the 270 Water Street site. ■ This wetland would likely be considered to be a coastal wetland for the purposes of the Provincial Policy Statement, which provides the highest level of protection from a land use planning perspective.	■ Wetland was discussed during meetings with Central Lake Ontario Conservation Authority and the draft Environmental Impact Study was circulated to Central Lake Ontario Conservation Authority staff for review and comment. ■ Refer to the Region’s response letters issued to Central Lake Ontario Conservation Authority dated September 20, 2022 and January 10, 2023 regarding the Region’s understanding on the wetland’s significance and preliminary compensation approach for the 270 Water Street site based on the proposed development.
November 5, 2021	■ Provided formal comments after the pre-consultation meeting held on October 21, 2021 related to the impact of the Energy Centre over the wetland on the site.	■ Letter dated February 14, 2022 was issued to Central Lake Ontario Conservation Authority in response to the pre-consultation and Draft Environmental Impact Study and next steps in the process.
December 7, 2021	■ Provided comments on the Draft Environmental Impact Study.	■ Letter dated February 14, 2022 was issued to Central Lake Ontario Conservation Authority in response to the pre-consultation and Draft Environmental Impact Study and next steps in the process.
February 15, 2022	■ Confirmed any borehole work within the regulated area will require a permit from Central Lake Ontario Conservation Authority prior to taking place.	■ Application was subsequently submitted after meeting with Central Lake Ontario Conservation Authority
June 7, 2022	■ Confirmed their professional opinion is that the wetlands on 270 Water Street qualify as coastal wetlands, per the Provincial Policy Statement. ■ With an understanding the Region intends to move forward with the Project, Central Lake Ontario Conservation Authority outlined their essential items for a compensation approach.	■ Letter dated September 20, 2022 was issued to Central Lake Ontario Conservation Authority outlining the Region’s ultimate commitments for the 270 Water Street development.
September 22, 2022	■ Central Lake Ontario Conservation Authority confirmed receipt of letter dated September 20, 2022 and will provide a formal response.	■ The Project team will review the response when received.
October 13, 2022	■ Provided comments related to the wetland significance, the proposed Town of Whitby facilities and key principles that should be achieved in coming to agreement on an ecological compensation approach ■ Recommends the completion of an appropriate wetland assessment to be submitted to the Ministry of Natural Resources and Forestry for verification of wetland status, or, alternatively, in the absence of an assessment, acknowledgement within the Environmental Assessment reporting that the wetlands meet the definition of “coastal wetlands”, per the Provincial Policy Statement, and would in all likelihood qualify as significant, and should therefore be considered as such. ■ Confirmed that pursuant to the Conservation Authorities Act and Ontario Regulation 42/06, a permit will be required prior to any works commencing. Given the scope of impact proposed (total wetland removal), the permit application cannot be delegated for staff approval and will be subject to Central Lake Ontario Conservation Authority Board of Directors decision-making. An agreed compensation approach will help ensure that the CLOCA Board of Directors is able to make a decision with a complete assessment of both planned impacts and compensation actions associated with the permit application. ■ Provided the first principles for a compensation approach to the project-related impacts: – Compensation must be land area based, outside of, but connected to the existing natural heritage system – Compensation must be based on “like for like” replacement and improvement of features removed – Compensation must achieve a “net gain” in order to meet Regional targets for woodland cover – Compensation must occur as close as possible to area of loss – Compensation must be agreed to and ideally implemented prior to removal of features ■ Provided initial feedback on the draft compensation proposal	■ Letter dated January 10, 2023 was issued to Central Lake Ontario Conservation Authority in response to the compensation approach. ■ The Region looks forward to working with the Central Lake Ontario Conservation Authority in drafting and implementing the Thickson’s Woods to Heydenshore Park Compensation Plan to enhance the ecological functions and public use of the Lake Ontario shoreline in Whitby. ■ The Region will present an agreed compensation approach to the Board of Directors. ■ The Notice of Filing of Addendum will be circulated when ready and the Municipal Class Environmental Assessment Addendum Report will be posted for the public review period on the Region’s Public Works’ Project website ■ The Region will also be proceeding with a Site Plan Application in Spring 2023, and as part of this Application it is anticipated a Permit will be required from the Central Lake Ontario Conservation Authority.

Table 8-2: Central Lake Ontario Conservation Authority Meetings

Meeting Date	Purpose of Meeting	Key Outcomes of Meeting / Action Items
October 21, 2021	■ Receive feedback on proposed Stormwater Management design criteria and preliminary strategy. ■ Comment on the Environmental Impact Study approaches and methodologies. ■ Confirm there are no issues with the coastal analysis. ■ Understand future permitting requirements.	■ Stormwater Management strategy to consider proposed change to Water Street profile (as per current Town of Whitby Municipal Class Environmental Assessment study). Refer to Section 5.1.2.3 for the Water Street analysis. ■ Beacon identified the need for a compensation strategy. Central Lake Ontario Conservation Authority indicated that ultimately, there needs to be no net loss to wetlands and the natural heritage system. Compensation to be further discussed with Central Lake Ontario Conservation Authority.
November 15, 2021	■ Better understand what compensation could hypothetically look like for this project. ■ Beacon presented some ideas on compensation.	■ Central Lake Ontario Conservation Authority has no formal policies that guide compensation at this time, which provides some flexibility in determining compensation. ■ Central Lake Ontario Conservation Authority is not opposed to the ideas discussed around compensation, but it is still too early in the planning process to confirm compensation with the ongoing review of the draft Environmental Impact Study. ■ AECOM requested Central Lake Ontario Conservation Authority provide direction with regards to any setback / buffer requirements for the 270 Water Street property's development footprint (e.g., north side of property) as this is very critical to the site layout concept being development for the complicated multi-party use of the lands.
May 13, 2022	■ Discussion of the wetland for 270 Water Street. ■ Objectives of the meeting were to present and discuss rationale for opinion of the wetland on the subject property and provide next steps for continued dialogue.	■ Refer to Table 8-1 for an overview of the correspondence following this discussion regarding the subject wetland.

8.3.3 Department of Fisheries and Oceans

The Project Team has initiated preliminary engagement with Department of Fisheries and Oceans to confirm any requirements related to the Small Craft Harbour property holdings based on the proposed changes to the Project, including the new twin box culvert that will cross Water Street through Rotary Sunrise Lake Park (249 Water Street), in addition to the shoreline protection works. No in-water work is anticipated at this time for the proposed changes to the approved project. This will be confirmed during detailed design.

8.3.4 Adjacent Property Owners

A meeting was held with adjacent property owners representing 220, 250, and 300 Water Street on June 13, 2022. The objectives of the meeting were to:

- Engage the land owners as key stakeholders prior to filing the addendum
- Explain the Whitby Water Supply Plant expansion planning process, including project design and implementation including potential impacts to adjacent land owners
- Address 250 Water Street comments, which focused on limiting construction access into the property, reducing impact of stormwater issues and a potential for the contractor's work area/public parking to be shuffled in the interim plan
- Allow neighbours the opportunity to provide feedback on the project design and implementation in addition to status of development plans, where applicable
- Outline next steps – timelines

Refer to **Appendix E** for the meeting minutes. The adjacent property owners are on the study's contact list and were circulated the notice of filing of addendum.

Property owners representing 250 Water Street provided comments (**Appendix E**) during the 30-day review period concerning the location of the Whitby WSP expansion, wildlife and bird observations, site drainage, groundwater and fencing details during and following construction. **Table 8-3** includes the detailed comments and how they have been considered by the Project Team.

Table 8-3: Adjacent Property Owner Comments and Responses

Item	Comment	Response
1.	The EA report refers to the project as a major development and imposing. The addition of an Energy Centre and sub station to serve this project and the entire Harbour Area adds substantially to the massiveness and intrusion to the waterfront and particularly to our property. Did the study consider other locations away from the waterfront of as part of the new plant addition. ? There are other Town owned properties on the waterfront. We're they considered?	The original 2005 Municipal Class Environmental Assessment Environmental Study Report noted that since there are two existing sources of supply, with potential for expansion to meet the future requirements after 2011, construction of a new WSP in Whitby or Oshawa was not considered a viable option. This recognized the desire to optimize existing WSP infrastructure including the current Lake Ontario intake and low lift pumping station at the Whitby WSP. As construction of a new WSP at another location was screened out, the 2005 Municipal Class Environmental Assessment reviewed the following alternatives in further detail: ■ Upgrade/Expand Whitby WSP ■ Upgrade/Expand Oshawa WSP ■ Supplement Supply from Ajax/Pickering water system. Upgrade/Expand Whitby WSP was further evaluated looking at both the north and south sides of Water Street. The 2005 Municipal Class Environmental Assessment recommended that the north side of Water Street was the preferred location for the Whitby WSP expansion. Construction of the WSP expansion on the north side is not feasible. This was confirmed through the 2018 Municipal Class Environmental Assessment Addendum and resulted in the south side of Water Street being confirmed as the preferred location for the WSP expansion. The north side of Water Street is considered viable for critical supporting infrastructure, such the Energy Centre and parking. Given alternatives have been previously assessed, no new locations were reviewed as part of Addendum No. 2.

Item	Comment	Response
2.	The site environmental impact study failed to mention wildlife observed on the site including deer, coyotes, fox, rabbits, and wild turkeys. It is important to recognize the importance of the forested site as a bird migration landing site which we have observed many times. In consideration of compensating plans the site design could be rethought to reduce the intensity if demand remove future development area for Town maintenance and work around existing vegetation or substantially increase landscape plantings to maintain natural habitat for birds and animals.	The Environmental Impact Study (EIS) Report notes under Section 4.5 that incidental wildlife observed on the 270 Water Street property during field investigations included Gray Squirrel, Eastern Cottontail, Striped Skunk and Red Fox. We also acknowledge other species are likely to occur in this vicinity, such as the Red Squirrel, White-tailed Deer, Raccoon and Coyote/Coywolf. We also acknowledge the 270 Water Street property provides habitat for migrating birds and appreciate your suggestions to reduce impacts. The Region is working with Central Lake Ontario Conservation (CLOCA) to determine an appropriate like-for-like strategic compensation strategy for the removal of habitat.
3.	I will repeat my concern for site drainage and the drainage plan for proposed parking and Water Street. Drainage across the front of 250 Water Street from the subject property will be eliminated. Proposed development to the north of the Energy site will also have rainwater runoff impacts. I have been assured this has been addressed, Please ensure there is a comprehensive study encompassing all properties so Water Street does not continue to flood.	The stormwater management analysis (Appendix D) addressed among other information, the existing and post-development site conditions, Water Street flooding analysis and Lake Ontario water level sensitivity analysis with the development of a proposed stormwater plan to support the site plan. This Addendum Report No. 2, including Appendix D (Stormwater Management Design Strategy) was also reviewed and accepted by MECP. All development applications must include a stormwater management plan that ensures there are no negative drainage impacts to surrounding properties.
4.	Page 49 refers to existing contaminated ground water. Please provide details.	Appendix D (Stormwater Management Design Strategy) includes information on groundwater contaminants.
5.	We look forward to all fencing details both during construction and in the finished condition to provide security and screening between sites.	Durham Region is committed to sharing key design updates as the Project progresses.

8.3.5 Ministry of the Environment, Conservation and Parks

The Ministry of the Environment, Conservation and Parks noted no major concerns with the changes proposed in the Addendum No. 2 report. The ministry provided recommendations regarding the soil and groundwater contamination to document existing conditions and proposed mitigation measures to address the contamination.

The characterization of soil and groundwater quality will be detailed within a desktop Assessment of Past Uses report, as well as within the Soil Characterization Report and Hydrogeological report during the design phase of the Project.

The Ministry further noted to clarify and consult with the ministry's York-Durham District Office to confirm whether a Record of Site Condition (RSC) would be required for the Project.

A copy of the detailed comments and responses are appended to the consultation record (**Appendix E**).

8.3.6 Ministry of Citizenship and Multiculturalism

The Ministry of Citizenship and Multiculturalism requested that the addendum report clarify whether all built heritage resources and cultural heritage landscapes potentially impacted by the undertaking as proposed in the current Addendum are accounted for in the 2018 Heritage Impact Assessment.

Section 5.4 has been updated to reference the 2018 Heritage Impact Assessment and potential built heritage resources and cultural heritage landscapes.

A copy of the Ministry's comments and associated responses is appended to the consultation record (**Appendix E**).

8.3.7 Thickson's Woods Land Trust

Thickson's Woods Land Trust noted no concerns in response to the filing of this addendum. A concern regarding a trail camera that it outside the scope of this study has been forwarded to the appropriate contact to address separately. A copy of the feedback received is appended to the consultation record (**Appendix E**).

8.4 Indigenous Consultation

The potentially interested Indigenous Communities will be engaged and provided the opportunity to review and comment on the Project during the review period of the filing

of addendum. The communities circulated on the notices as part of the 2018 addendum included:

- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Rama First Nation
- Chippewas of Georgina Island First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Council of the Wendat Nation
- Kawartha Nishnawbe First Nation of Burleigh Falls
- Mississaugas of Scugog Island First Nation
- Métis Nation of Ontario
- Mississaugas of the Credit First Nation
- Six Nations of the Grand River (Elected Council and Haudenosaunee Confederacy Chiefs Council/Haudenosaunee Development Institute)

The Indigenous Communities that responded in 2018 included Hiawatha First Nation, Huron Wendat Nation, Curve Lake First Nation, and Mississaugas of the Credit First Nation. The commitments specific to Indigenous Communities from the 2018 addendum were reviewed through this addendum (refer to **Section 7**).

For this Municipal Class Environmental Assessment addendum, the proposed approach to Indigenous community engagement is similar to the targeted engagement strategy for Central Lake Ontario Conservation Authority and adjacent property owners. The above Indigenous Communities have been engaged with the filing of the Notice of Addendum.

Below summarizes the feedback received during the 30-day review period for the filing of this addendum. A copy of the comments and responses are appended to the consultation record (**Appendix E**).

Curve Lake First Nation

The Region of Durham has entered into an agreement with Curve Lake First Nation and is committed to on-going consultation on the Project with Curve Lake First Nation. Comments may be provided by Curve Lake First Nation as the project proceeds through to the design phases.

Council of the Wendat Nation

Council of the Wendat Nation requested a copy of the previous archaeological studies completed in support of the Whitby Water Supply Plant expansion and expressed

interest in participating in all archaeological fieldwork for this project, as well as receiving copies of the draft reports for review and comments with funding available to insure their participation.

The Region will coordinate Council of the Wendat Nation's participation and review of the future combined Stage 1 and 2 archaeological assessment (and further assessments, as recommended) associated with the Phase 1 twin box culvert storm sewer works through Rotary Sunrise Lake Park, to the existing Lake Ontario outfall.

Chippewas of Rama First Nation

Chippewas of Rama First Nation noted no concerns in response to the Notice of Filing of Addendum and requested a figure of the project overview and clarification with regards to safety measures in place to protect the water from development.

The Region responded with a figure that shows the Study Area as well as a rendering of the infrastructure planned. In terms of the shoreline protection works in front of the existing Whitby Water Supply Plant, the Addendum No. 2 Report includes the commitments that the Region will ensure that the building and surrounding property are fortified / safeguarded against erosion associated with Lake Ontario in accordance with the previous 2018 addendum commitments.

9. Conclusions

This Municipal Class Environmental Assessment Addendum report covers the processes required to ensure that the proposed changes to the Project meet the requirements of the *Environmental Assessment Act*.

The Municipal Class Environmental Assessment Addendum planning process has not identified any significant concerns that cannot be addressed by incorporating established mitigation measures during construction, in addition to compensation in the case of loss of ecological and hydrological functions on the 270 Water Street property.

Considering the above, it is recommended that:

- Following Municipal Class Environmental Assessment Addendum documentation filing and clearance, the updated design concept proceed to preliminary and detailed design including approvals. The Project can proceed to implementation as no Section 16 Order requests were received as a result of the 30-day public review period.
- Mitigation measures identified in **Section 6** be expanded upon during preliminary and detailed design and implemented as part of construction.
- The Municipal Class Environmental Assessment Addendum commitments identified in **Section 7** be addressed during the preliminary/detailed design phase and monitored for fulfillment.
- The Region continues to work with the Town of Whitby during preliminary and detailed design to develop mitigation strategies and implement the recommended Waterfront Trail relocation and realignment and development of the 270 Water Street property having regard to ultimate planned uses. This also includes co-ordination with the current Town of Whitby Water Street Improvements Municipal Class Environmental Assessment, which is currently underway.
- The Region continues to work with the Central Lake Ontario Conservation Authority and Curve Lake First Nation during preliminary and detailed design to develop mitigation and compensation strategies and implement the recommended works, including post construction monitoring.