Municipal Class Environmental Assessment Addendum Central Corridor Feedermain

Environmental Assessment Addendum

Prepared for:
ENWIN Utilities Ltd.

Prepared by:
Stantec Consulting Ltd.

December 21, 2023

Sign-off Sheet

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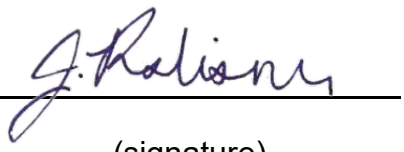
Jenn Robinson

Prepared by 

(signature)

Diana Addley

Reviewed by 

(signature)

Michael Mastronardi, P.Eng.

Approved by 

(signature)

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1.0 Introduction and Background

The Windsor Utilities Commission (WUC) completed a Schedule B Municipal Class Environmental Assessment (MCEA) study in 2014 to identify a preferred site for a new potable water reservoir to improve storage capacity, and to identify a preferred alignment for a new central corridor (CCFM). The new CCFM will improve overall operations and servicing capability to the outer limits of the existing service area. The findings and recommendations of the 2014 MCEA are documented within a project screening report, entitled “Potable Water Reservoir & Central Corridor Feedermain, Municipal Class Environmental Assessment, Schedule (B)”, prepared by AECOM and dated September 2014 (hereinafter referred to as “the screening report”).

A copy of the screening report can be requested from the following contact:

Chris Manzon, P.Eng.
Director Engineering (Water)
ENWIN Utilities Ltd.
4545 Rhodes Drive, P.O. Box 1625 Station A
Windsor, ON N8W 5T1
Tel: 519-251-7300 ext. 295
Email: cmanzon@enwin.com

ENWIN Utilities Ltd. (ENWIN) on behalf of the WUC is currently undertaking the detail design of the CCFM feedermain component of the project. However, based on a more detailed review of the CCFM construction methodology recommended within the screening report, modifications to the preferred CCFM alignment were expected. As such, this Addendum to the 2014 MCEA has been completed to assess the potential environmental impacts associated with the changes to the CCFM alignment and identify mitigation measures.

As per the MCEA process, ENWIN is required to assess the proposed modifications that require the Addendum, document the review through an Addendum to the project screening report and file the Addendum together with the project screening report for public and agency review.

This report documents:

- The proposed modifications to the previously approved MCEA;
- The rationale and implications of the changes and associated mitigation measures; and

- A summary of the consultation activities carried out as part of the Addendum process.

It should be noted that the existing natural heritage, archaeological and cultural heritage conditions were assessed for the entire CCFM alignment, to help ensure that current environmental conditions, potential environmental impacts, and mitigation measures are considered as part of the detailed design and construction of the project.

2.0 Overview of the Municipal Class Environmental Assessment Addendum Process

The 2014 MCEA for the new potable water reservoir and new CCFM, was carried out in accordance with the MCEA document (October 2000, as amended in 2015) as a Schedule B undertaking. In accordance with the recently amended MCEA document (2023), any significant modification to the project and/or change in the environmental settings after the filing of the project screening report, requires a review to be carried out as follows:

- Identify the circumstances necessitating the change;
- Determine potential environmental implications of the proposed change, along with any measures for mitigating potential adverse environmental effects;
- Document the proposed changes, rationale, implications, and mitigation measures in an Addendum to the project screening report; and
- File the Addendum and project screening report for a minimum period of 30 calendar days, with a Notice of Addendum issued to potentially affected members of the public and review agencies, as well as those who confirmed their desire to be notified of the filing of the Addendum.

Please note that only the changes proposed to the project, as documented within this Addendum report, are subject to review.

ENWIN may not proceed with the project until at least 30 days after the end of the comment period provided in the Notice of Addendum.

Interested persons may provide written comments to the study team by January 11, 2024. All comments and concerns should be sent directly to:

Chris Manzon, P.Eng.
Director Engineering (Water)
ENWIN Utilities Ltd.
4545 Rhodes Drive,
P.O. Box 1625 Station A
Windsor, ON N8W 5T1
Tel: 519-251-7300 ext. 295
Email: cmanzon@enwin.com

Michael Mastronardi, P.Eng.
Senior Municipal Project Manager
Stantec Consulting Ltd.
100-2555 Ouellette Avenue
Windsor, ON N8X 1L9
Tel: 226-704-3049
Email: michael.mastronardi@stantec.com

In addition, a request to the Minister of the Environment, Conservation and Parks for an order imposing additional conditions or requiring an individual environmental assessment may be made on the grounds that the requested order may prevent, mitigate, or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests should include your full name and contact information.

Requests should specify what kind of order is being requested (additional conditions or an individual environmental assessment), explain how an order may prevent, mitigate, or remedy potential adverse impacts, and can include any supporting information.

The request should be sent in hardcopy or by email to:

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

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

Requests should also be copied to ENWIN by mail or by e-mail. Please visit the MECP's website for more information on requests for orders under Section 16 of the Environmental Assessment Act at: https://www.ontario.ca/page/class-environmental-assessments-section-16-order

All personal information included in your request (such as name, address, telephone number and property location) is 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 (FIPPA) does not apply (s.37). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential.

3.0 Description of the Proposed Changes and Their Rationale

3.1 Description of Proposed Changes

The amended CCFM alignment includes changes to the alignment approved as part of the 2014 MCEA, as described below within **Table 1**.

Table 1: Summary of Amended CCFM Alignment Changes

2014 MCEA Alignment	Amended Alignment	Rationale
Alignment runs west along Ontario Street from George Avenue to the Ford Motor Company at the end of Ontario Street. The alignment then runs south through the Ford property to Seminole Street.	Amended alignment shifts from east of the Ford Motor Company at the end of Ontario Street to Central Avenue and runs along Central Avenue from Wyandotte Street East to Seminole Street.	The 2014 MCEA alignment would require a lengthy easement across the Ford Motor Company property. By shifting the alignment to along Central Avenue the CCFM will cross a smaller portion of the Ford Motor Company property, as well as the CN/VIA railway and Essex Terminal Railway respective rights-of-way (ROWs) via tunnelling. An existing watermain is located across these locations within an existing easement, which may be used to parallel the existing watermain with the new CCFM. If not possible, a new easement for this CCFM alignment will be obtained.
Alignment runs from Seminole Street to Milloy Street, through the east side of Ford-Test Track Park.	Amended alignment runs west along Seminole Street from Central Avenue for a short distance then shifts to the north side of the Ford Test Track Park parking lot then turns south to continue	Ford Test Track Park was identified as a Cultural Heritage Landscape (CHL), (see **Section 4.3)**. Shifting the alignment of the new CCFM to the west side of Ford Test Track Park

2014 MCEA Alignment	Amended Alignment	Rationale
	along the west side of Ford Test Track Park to Milloy Street.	results in less disturbance to trees and the CHL.
Alignment runs south along Turner Road from Tecumseh Road to Memorial Drive. Using tunnelling, the alignment then crosses under the CP Railway to Grand Marais Road East. The alignment then jogs west to run south along the east side of the Udine Park, crossing under the Grand Marais Drain, and continuing south through the east side of the Fogolar Furlan Club to North Service Road.	Amended alignment continues south along Turner Road from Grand Marais Road East. Using tunnelling, the alignment crosses under the Grand Marais Drain to North Service Road and the E.C. Row Expressway.	The former Fogolar Furland Club has been purchased for future residential development. By shifting the alignment into the municipal ROW of Turner Road (south of Grand Marais Road East), crossing of the east side of the former Fogolar Furland Club is avoided, no longer resulting in direct impacts to private property owners or the need for a new easement.
Alignment runs west along North Service Road and crosses at an underpass of the E.C. Row Expressway on Conservation Drive, where the alignment then continues west on E.C. Row Avenue East until Devon Drive.	Amended alignment runs west along the ROW of North Service Road and portions of the E. C. Row Expressway ROW, from Turner Road to Marentette Avenue where, using tunnelling, the alignment will cross underneath the E.C. Row Expressway.	The amended alignment avoids a crossing at the E.C. Row Expressway underpass, which simplifies the construction method and avoids disruption of traffic and pedestrians.

2014 MCEA Alignment	Amended Alignment	Rationale
Alignment along Devon Drive south to the intersection of Sydney Avenue, and then west to Marentette Avenue. The alignment then runs south along Marentette Avenue for a short distance to the continuation of Sydney Avenue and then west along Sydney Avenue to Division Road.	Amended alignment shifts to the west and runs south down Marentette Avenue from the E. C. Row Expressway to the intersection of Sydney Avenue, and then west down Sydney Avenue to Division Road.	Devon Drive is a new concrete paved roadway, whereas Marentette Avenue consists of old asphalt. Simplifying the alignment to run south along only Marentette Avenue results in restoration cost savings by avoiding impacts to Devon Drive.
Alignment is to be terminated at the intersection of Division Road and Turner Road.	Amended alignment is shortened and will terminate approximately 100 m west of the intersection of Cabana Road East and Division Road (on Division Road).	A new watermain is to be constructed on Cabana Road East via a different project (estimated 2025). As part of this future construction, a T-connection will be provided at the intersection of Cabana Road East and Sixth Concession Road, which the CCFM will be able to connect to.

The amended CCFM alignment begins on Wyandotte Street East at the Albert H. Weeks Water Treatment Plant and continues southerly along Central Avenue under the CN/VIA and Essex Terminal Railway tracks and a small of land owned by the Ford Motor Company to Seminole Street, where it then travels west to then continue south along the west side of the Ford Test Track Park. The amended alignment then travels west on Milloy Street until Factoria Road, where it then travels south to Tecumseh Road East and west on Tecumseh Road to Turner Road. The alignment travels south down Turner Road until North Service Road. At North Service Road, the amended alignment continues west along North Service Road (and portions of the E. C. Row Expressway) until Marentette Avenue. At Marentette Avenue, the amended alignment crosses under the E.C. Row Expressway and continues along Marentette Avenue until it reaches Sydney Avenue. The amended alignment follows Sydney Avenue until its intersection with Division Road where it travels until the point of termination, which is approximately

100 m west of the intersection of Cabana Road East and Division Road at Sixth Concession Road.

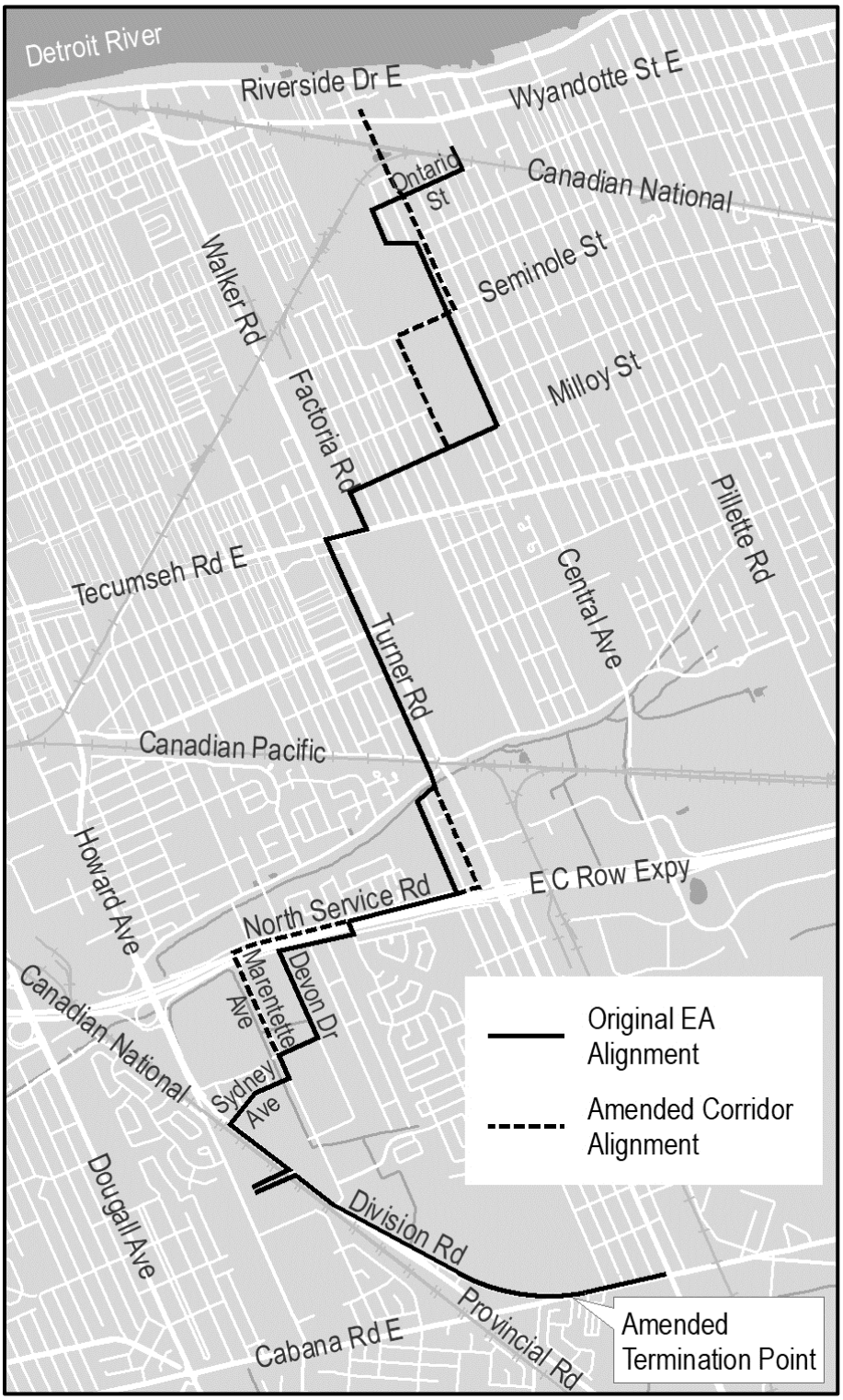
3.2 Rationale for the Proposed Changes

The modifications to the alignment recommended as part of the 2014 MCEA offers many advantages including impacting the least number of private properties, the need for fewer easements that alternate routes would otherwise require, reducing disturbance on certain sections of high traffic roads and residential neighborhoods, and reducing impacts to cultural heritage properties.

3.3 Proposed Changes to the Approved Undertaking

Given that the design modifications to the original CCFM alignment introduces direct impacts beyond what was assessed as part of the 2014 MCEA (as illustrated in **Figure 1**), an Addendum to the 2014 project screening report is required.

Figure 1: Proposed Modifications



4.0 Existing Environmental Conditions

4.1 Natural Environment

A Natural Heritage Impact Assessment (NHIA) Memo was completed as part this Addendum to identify potential natural heritage features that may be present along the CCFM alignment. The NHIA consisted of a review of previously collected data and information provided by the City of Windsor, Essex Region Conservation Authority (ERCA), the Ministry of Natural Resources and Forestry (MNRF), and other agencies, as well as field assessments carried out in May 2023. These field investigations were completed along the entire CCFM alignment to confirm the existing natural heritage features that were identified through the initial background data collection process within a 120 m radius of the CCFM.

A copy of the Natural Heritage Impact Assessment memo is available within **Appendix A**.

4.1.1 Terrestrial Environment

The existing land use within the study area consists primarily of greenspaces and residential and industrial areas developed with transportation infrastructure (i.e., expressway, roads, railways, etc.).

4.1.1.1 Designated Areas

The Devonwood Conservation Area was identified as a designated Area of Natural and Scientific Interest (ANSI) located at the southern edge of the study area. The Devonwood Conservation Area is a 48-hectare forest dominated by mature deciduous trees and provides suitable habitat for several species at risk (SAR). It is also designated as a Natural Heritage area within the City of Windsor Official Plan (OP 2022). According to the City's OP 2022, development on lands adjacent to Natural Heritage areas may require an Environmental Evaluation Report to demonstrate that the proposed development causes no negative impacts to natural heritages features or their ecological functions.

4.1.1.2 Wetlands

There were no wetlands identified within the study area.

4.1.1.3 Species of Conservation Concern

Significant species are considered at a number of levels, including globally, nationally, and provincially. In Ontario, significant species include species that are provincially rare or listed as Endangered, Threatened, or Special Concern on the Species at Risk in Ontario list (SARO) and/or Schedule 1 of the federal *Species at Risk Act* (SARA).

The Ontario *Endangered Species Act, 2007* (ESA) prohibits harm or harassment to Threatened or Endangered species, and damage or disturbance to their habitat. The ESA applies on all private and Crown owned lands in Ontario. Habitat protection under the ESA typically includes all habitats that directly or indirectly support SAR.

Federally protected Endangered, Threatened and Special Concern species are listed in Schedule 1 of the *Species at Risk Act, 2002* and apply to federally owned lands and to aquatic species. Migratory bird species are protected under the *Migratory Birds Convention Act*, which are afforded protection on all lands.

A review of background information and the findings of field investigations undertaken in the spring of 2023 were used to assess the potential for habitat of Species of Conservation Concern (SOCC) within the study area. A review of species databases identified that 58 SOCC have been previously documented or have the potential to occur within the study area. However, no SOCC were observed within the study area during the 2023 field investigations.

4.1.1.4 Species at Risk

SAR are those species identified as either endangered or threatened under the ESA. Based on a review of background information, 24 provincially threatened and/or endangered species are known to occur in the vicinity of the study area.

During spring 2023 field investigations in May 2023, one plant SAR, a Kentucky Coffee-tree, was observed within the study area but appeared to be under stress and was assumed to be planted as a municipal ornamental landscaping tree. No other SAR were observed within the study area during field investigations.

4.1.1.5 Significant Wildlife Habitat

Potential snake hibernacula features suitable for Eastern Foxsnake and Butler's Gartersnake were identified during the spring 2023 field investigations. However, no indicators of snake use (i.e., skin sheds) were observed within the study area.

In addition, several mature trees were observed within the study area that may provide suitable habitat for nesting birds, and one bat tree was identified as having potential to support bat maternity roosting. However, no signs of nesting or current SAR bat activity (i.e., guano staining) were observed during field investigations.

4.1.2 Aquatic Environment

One permanent watercourse, Turkey Creek, is located within the study area, the bottom of which was observed to be rocky, and the bank lined with coarse rip-rap followed by mowed lawn. Based on field investigations and background information, it is anticipated that Turkey Creek supports a warmwater fish community within the study area. However, the watercourse features make it unlikely habitat for any aquatic SAR.

The Grand Marais Drain constitutes the upper reaches of Turkey Creek and is a municipal drain that has not been issued a DFO drain classification. Previous fish community sampling in 2015 documented several common fish species that are known to spawn during the spring and summer months, indicating that the Grand Marais Drain supports warmwater fish community within the study area.

While aquatic SAR are not mapped as occurring within the Grand Marais Drain, they are known to occur within Turkey Creek approximately 8.4 km downstream from the study area. However, the Grand Marais Drain is a highly modified drain within a predominantly urbanized watershed, with approximately 3.6 km long stretches of straightened and hardened concrete channel through developed areas of the City. The watercourse also flows underground for long distances from Huron Church Road and Herb Gray parkway, California Avenue, Askin Avenue, and the E.C. Row Expressway. These modifications create habitat fragmentation and are likely to include barriers for fish movement and migration within the watercourse. Thus, it is unlikely that any SAR species are able to move upstream to the study area. More information in regard to the Grand Marais Drain is included within the Aquatic Habitat Assessment of the Grand Marais Drain Memo, available within **Appendix B**.

In addition, based on a review of background information, three other watercourses were identified within the study area as DFO Class F municipal drains, having an intermittent flow regime and are not supportive of sensitive fish species. No water was observed within these three watercourses during the spring 2023 field investigations.

4.2 Archaeological Resources

A Stage 1 Archaeological Assessment (AA) was carried out for the entire CCFM alignment in accordance with the Ministry of Citizenship and Multiculturalism (MCM) 2011 Standards and Guidelines for Consultant Archaeologists to confirm potential for the recovery of archaeological resources within the study area. The Stage 1 AA included a desktop review of available background documents and databases, as well as property inspections completed on June 30 and July 29, 2023 by a licensed archaeologist.

The Stage 1 AA property inspection determined that extensive land disturbance has eradicated archaeological potential for much of the study area (i.e., through the construction of roadways, railways, industrialized areas, buildings and structures, etc.). As such, it was confirmed that much of the study area, approximately 91.05%, retains low to no archaeological potential due to previous and extensive disturbances, steep slopes, and areas that are low and permanently wet.

However, a small portion of the study area, approximately 8.95%, consisting of manicured lawn, parkland and scrubland, retains archaeological potential.

A copy of the Stage 1 AA report is provided in **Appendix C** of this report.

4.3 Cultural Heritage

To determine the potential for previously identified or protected built heritage resources (BHRs) and cultural heritage landscapes (CHLs) within the study area, the Ministry of Citizenship and Multiculturalism (MCM) *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (the Checklist) was completed for the entire CCFM alignment as part of this Addendum. The Checklist is used to identify potential and previously identified BHRs and CHLs and make recommendations for future work, as appropriate. Based on the findings of the Checklist, 5 indicators of cultural heritage value or interest (CHVI) were identified, including properties designated or otherwise protected under the Ontario Heritage Act, known burial sites and/or cemetery, buildings or structures that are 40 or more years old, etc. As such, the completion of a *Cultural Heritage Existing Conditions and Preliminary Impact Assessment Report* (CHR) was recommended as part of the Addendum process. A copy of the Checklist is available within **Appendix D**.

The CHR report was completed in 2023 to identify heritage resources, including BHRs and CHLs both present within and adjacent to the study area. Historical research was conducted and supplemented by material obtained through available online resources. In addition, a vehicular windshield survey was also undertaken on September 7, 2023, from publicly accessible roadways to confirm existing study area conditions. Potential resources were identified, inventoried, and evaluated according to Ontario Regulation (O.Reg.) 9/06, the criteria for determining cultural heritage value or interest (CHVI) (Government of Ontario 2006a).

Based on the findings of the above activities, 6 CHLs and 70 BHRs were identified within 50 m of the study area. For a full list of these CHLs and BHRs, please refer to **Appendix E**.

4.4 Source Water Protection

The City of Windsor obtains its drinking water supply from a surface water intake in the Detroit River and the study area lies within the Essex Source Protection Area. As established under the Ontario Clean Water Act (2006), source protection areas and associated land use restrictions exist for municipal drinking water sources.

The study area falls within Intake Protection Zone 2 (IPZ-2) and an IPZ-3. An IPZ is a zone established around drinking/surface water intake to protect the drinking water system from a potential spill or leak. The IPZ-2 represents the travel time to the treatment system, while IPZ-3 represents potential impacts to the treatment system following a large storm event.

In addition, much of the study area is located within or in proximity to event-based areas (EBAs), and the southernmost portion of the study area is within a Significant Groundwater Recharge Area (SGRA). There are no wellhead protection areas (WPAs), or highly vulnerable aquifers (HVAs) located within the study area.

5.0 Potential Impacts of the Proposed Modifications

The potential impacts associated with the proposed modifications of the project were reviewed and assessed, as summarized below. No other changes to the project and/or potential impacts to the environment, as identified within the 2014 ESR, are anticipated.

5.1 Natural Environment

Potential impacts associated with the implementation of the amended alignment of the CCFM include soil compaction, vegetation disturbance, spills of deleterious substances, noise disturbance and encounters with wildlife. The impacts are considered to be short term and localized during construction activities, and will be mitigated through the application of appropriate construction techniques and mitigation measures, as outlined within **Section 6.0** and **Table 2** of this Addendum report.

5.1.1 Terrestrial Environment

5.1.1.1 Trees and Vegetation

The installation of CCFM may result in impacts to trees and vegetation within the study area.

5.1.1.2 Wildlife Habitat

No permanent impacts to breeding birds, reptiles, and other wildlife are expected as a result of the installation of the proposed works.

5.1.1.3 Designated Areas

As noted within Section 4.1.1, the Devonwood Conservation Area is designated as an ANSI and as a natural heritage area within the City of Windsor's Official Plan (2022). However, no direct impacts are anticipated as the CCFM would be installed adjacent to the designated area, on the south side of Division Road.

5.1.1.4 Species at Risk

The study area was confirmed to have a single Kentucky Coffee-tree and potential habitat for SAR snakes (i.e., Butler's Gartersnake and Eastern Foxsnake) and SAR bats. However, no direct impacts are expected to SAR as a result of the proposed works.

5.1.2 Fish and Fish Habitat

The CCFM will be installed using micro-tunnelling methodology at the Grand Marais Drain watercourse crossing. As such, no impacts to fish and fish habitat are expected as a result of the installation of the CCFM.

5.2 Archaeological Resources

The new CCFM alignment does not impact any registered archaeological sites. However, the findings of the Stage 1 AA indicated that approximately 8.95% of the study area retains potential for the recovery of archaeological resources. As such, a Stage 2 AA is required for any portions of the project's anticipated construction activities which may impact an area of archaeological potential, in accordance with MCM 2011 *Standards and Guidelines for Consultation Archaeologists*. A Stage 2 AA is currently being undertaken and once completed, the Stage 2 AA report will also be filed with the MCM for concurrence and endorsement.

5.3 Cultural Heritage

The preliminary impact assessment of the amended CCFM alignment identified that one potential CHL (CHL-2) is at risk for direct impacts as a result of project construction activities. Specifically, impacts to the property located at 3001 Seminole Street (the Ford Test Track Park) are anticipated. The property was identified as CHL due to its association with the Ford Motor Company and contains the former oval-shaped test track (constructed between 1940 and 1951) that has since been converted into a walking/running path. Eighteen (18) soccer fields are positioned within the oval track and a dog park is located in the northwest corner of the property.

The watermain will be installed in a grassed area located on the west side of the park and beneath a gravel parking area at the north end of the property, where there are no built/historic landscape features. Lands will be restored to their preconstruction condition following installation of the watermains, and the project will not interact in any way with the existing concrete track.

In addition, construction activities will be located more than 50 m from the outbuildings and park structures within CHL-2. Therefore, no indirect vibration impacts are anticipated.

The preliminary impact assessment also identified the potential for indirect vibration related impacts to 70 previously identified or potential BHRs situated within 50 m of planned construction activities. Given that construction activities are generally limited to the installation of the feedermain via open cut excavation, significant vibration impacts are not anticipated. However, in cases where tunnelling will be undertaken, vibration effects associated with construction are expected.

5.4 Source Water Protection

The project consists of an approximately 11.5 km long 1200 mm diameter CCFM installed between 2 m to 4 m below the ground surface (deeper at micro-tunnelling locations). Approximately 3.5 km of the amended CCFM alignment crosses IPZ-2 for the City of Windsor surface water treatment system, with additional sections of the route crossing IPZ-3 and several EBAs. In addition, the southern portion of the amended CCFM alignment passes through a SGRA.

Based on a review of the online MECP Source Water Protection Information Atlas (2023), there are no significant chemical or pathogen threats associated with the proposed construction or long-term operation of the project within these vulnerable areas.

6.0 Proposed Mitigation Measures

In general, the following mitigation measures should be applied during construction:

- Construction should avoid sensitive timing windows provided below (i.e., migratory breeding bird period, bat maternity roosting period, herptile active seasons).
- If construction cannot avoid sensitive timing windows, they must follow appropriate mitigation measures to protect wildlife in the area (i.e., bird nest search, maternity roost bat survey, herptile fencing).
- Site clearing (i.e., vegetation removal) should proceed in phases with the most disturbed part of the site being cleared first and the least disturbed last.
- Construction equipment and vehicles are to yield to wildlife.
- Inform construction personnel to not threaten, harass or injure wildlife.
- If wildlife species are encountered during construction, personnel are required to move away from the animal and wait for the animal to move off the construction site.

6.1 Terrestrial Environment

6.1.1 Tree and Vegetation Protection

The following best management practices should be followed when construction activities occur near retained trees:

- Erect a fence 1.2 m high around the critical root zone (CRZ) of trees.
- Do not attach any signs, notices, or posters to any tree.
- Do not damage the root system, trunk, or branches of any tree.
- Do not place any material or equipment within the CRZ of the tree.
- Do not raise or lower the existing grade within the CRZ.
- Do not direct exhaust fumes from equipment towards any tree’s canopy.
- Tunnel or bore when digging within the CRZ of any tree.

6.1.2 Protection of Migratory Birds

Although not present during the spring 2023 field investigations, natural vegetation throughout the study area may support nesting birds in subsequent seasons. Vegetation is proposed to be removed from the site (i.e., temporary workspaces), and therefore

there is a potential to negatively impact birds which are protected under the Migratory Birds Convention Act, 1994 (MBCA). The MBCA provides legal protection of migratory birds and their active nests in Canada. The loss of migratory bird nests, eggs, and/or nesting due to tree cutting or other vegetation impacts can be avoided by limiting impacts to vegetation to occur outside the general nesting periods for migratory birds in the region (i.e., between March 29 and August 26).

If work must be performed within this window, a pre-clearing survey for active nests or breeding activity must be conducted by a qualified biologist before work commences. A pre-clearing survey is considered expired after 5 days due to the potential for birds to establish a nest after the survey. It is further recommended that a nest search occur within 48 hours of the start of planned construction activities within the migratory nesting period.

6.1.3 Protection of Natural Heritage Features

6.1.3.1 Devonwood Conservation Area

As noted within Section 4.1.1, the Devonwood Conservation Area is designated as an ANSI, and a natural heritage area in the City of Windsor Official Plan. Since the installation of the amended CCFM is not expected to impact the Devonwood Conservation Area, as the CCFM would be installed on the south side of Division Road, an Environmental Evaluation Report is not required.

6.1.3.2 Grand Marais Drain

The majority of potential impacts to the Grand Marais Drain are common to various types of construction activities (i.e., excavation) and can be controlled using standard mitigation measures for erosion and sediment control to minimize the duration of soil exposure, retain existing vegetation where feasible, encourage re-vegetation, divert runoff away from exposed soils and keep velocities low, and trap sediment as close to the source as possible. Although the CCFM crossing will be micro-tunnelled under the Grand Marais Drain, there will be a launching and a receiving shaft excavated on either side of the drain within 30 m and 50 m of the drain, respectively.

To address this, the following mitigation measures are recommended for implementation during construction:

- Minimize the access and temporary workspace to the extent possible to limit destabilization of soils near the work area.

- Silt fencing and/or barriers such as sediment logs (i.e., Silt Soxx™) could be used along all work zones where there is potential for sedimentation into the Grand Marais Drain/Turkey Creek.
- Dust could be controlled by using water instead of chemical suppressants in dust-sensitive areas such as the mapped natural heritage features.
- No equipment should be permitted to enter natural areas beyond exclusionary fencing.
- All exposed soil areas should be stabilized (native seed mixes; sourced locally if possible) and revegetated, through the placement of seed and mulching or seed and an erosion control blanket, promptly upon completion of construction activities.
- Equipment should be re-fueled 30 m away from the Grand Marais Drain to avoid potential impacts if an accidental spill occurs.
- In addition to any specified requirements, additional silt fence and/or silt logs should be available on site, prior to grading operations, to provide a contingency supply in the event of an emergency.
- Sediment and erosion controls should be monitored regularly and properly maintained as required.
- Controls are to be removed only after the soils of the construction area have been stabilized and adequately protected or until cover is re-established.
- The limits of construction adjacent to natural features to be retained will be fenced prior to construction and monitored during construction (along with sediment and erosion control measures) to make sure that the limits are maintained with respect to vehicular traffic and soil or equipment stockpiling.
- The Contractor should be required to restore disturbance to any natural features affected by construction to pre-construction condition.

6.1.4 Species at Risk

The study area was confirmed to have a single Kentucky Coffee-tree and, although not present during field investigations, there is also potential habitat for SAR snakes (i.e., Butler's Gartersnake and Eastern Foxsnake), and SAR bats. Prior to construction, the following general mitigation measures are recommended to protect SAR:

- Implement a worker awareness program for construction staff that includes SAR identification and habitat characteristics.

- Conduct a daily pre-construction search of the work area to identify presence of SAR.
- If threatened or endangered species are seen in or near the work area, stop work immediately.
- Take photographs, if possible, but do not interact with the animal. Species-specific mitigation measures are provided below.

6.1.4.1 Kentucky Coffee-tree

The single Kentucky Coffee-tree observed during field investigations is a planted City of Windsor municipal street tree located on the front lawn of a residence within the study area. The tree and vegetation protection measures provided above (**Section 6.1.1**) are considered suitable to avoid and/or mitigate potential negative impacts that construction activities may have on the tree.

6.1.4.2 SAR Snakes

While not present during field investigations, based on historical records there is potential to encounter SAR snakes within the study area. As such, a search of the construction area(s) should be conducted by contractors before work commences each day. Visual searches should include inspection of machinery and equipment, prior to starting equipment, particularly within peak wildlife activity periods for Butler's Gartersnakes (March 15 to November 30). If reptiles are encountered, they should be permitted a reasonable time to move from the area.

If repeated encounters occur, a light-duty geotextile exclusion fencing is recommended around the perimeter of stockpiles, equipment storage locations, and other areas of disturbance in the study area, for all activities occurring during reptile active season (March 15 to September 30).

While the above mitigation measures are considered adequate to avoid impacts to both Butler's Gartersnake and/or Eastern Foxsnake, if these species or specific habitat features supporting these species are anticipated to be impacted, an Information Gathering Form should be submitted to MECP to solicit formal review and comment on ESA requirements associated with the project.

6.1.4.3 SAR Bats

Although not directly observed during field investigations, the presence of mature trees and buildings, and a single potentially suitable SAR Bat Maternity Roost tree indicates the potential for SAR Bats to be encountered within the study area. To reduce the likelihood of harm to SAR bats, it is recommended that impacts/removals of these features, if required, occur outside of the SAR bat active season (April 1 to September 30).

If SAR Bats are observed using features (i.e., mature trees and buildings) and removal is required within the active season window, maternity exit surveys should be conducted. If work is anticipated to impact SAR Myotis bats, ESA authorization may be required, through further consultation with MECP and the completion of an Information Gathering Form submission.

6.2 Archaeological Resources

As noted within **Section 5.2**, a Stage 2 AA is being completed following this study for areas that have been identified as retaining potential for the recovery of archaeological resources and will be impacted by construction activities.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the MCM, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development. Until MCM clearance is obtained, no construction may occur on sites recommended for further archaeological fieldwork.

During construction, should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b).

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (Government of Ontario 2002) requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

6.3 Cultural Heritage

In regard to CHL-2 (the Ford Test Track Park), lands should be restored to their preconstruction condition following installation of the watermains and it should be ensured that the project will not interact in any way with the existing concrete track. Pre-construction documentation, the installation of temporary demarcation around the construction workspace (i.e., by fencing, staking and/or flagging), and the inclusion of the boundaries of CHL-2 on construction maps are recommended as mitigative measures prior to the return of the CHL to existing conditions.

Any further use of the property associated with CHL-2 that is deemed necessary, including but not limited to alteration of the test track path or changes to grading, would require the completion of a Cultural Heritage Evaluation Report (CHER) so that heritage attributes of the landscape can be identified, and impacts can be further assessed and mitigated. Temporary impacts along the western and northern edges of the park as discussed within **Section 5.3** do not require additional cultural heritage evaluation of CHL-2.

Potential indirect impacts resulting from vibration effects related to construction activities have been identified for BHRs located within 50 m of the CCFM. As discussed within Section 5.3, construction activities are generally limited to installation of the feedermain via open cut excavation, and vibration impacts are not anticipated in association with this construction approach. However, in cases where tunnelling will be undertaken, vibration effects associated with construction are expected. As such, the following preventative approach is recommended to reduce the risk of indirect impacts:

- **Preferred Approach:** Avoid properties previously identified as BHRs by establishing a 50 m buffer around the resource to avoid construction disturbance using appropriate measures such as construction mapping and temporary

fencing. Staging and laydown areas should also be selected so that they are non-invasive and avoid any BHRs.

- **Alternative Approach:** Where avoidance of a resource within 50 m of project construction activities is not feasible, the alternative approach is to mitigate risk by having a qualified building condition specialist or engineer develop a strategy to carry out condition surveys and vibration monitoring, if and where required. The pre-condition survey will consist of screening activities to identify critical properties and determine appropriate vibration levels based on building type, age and condition. Vibration monitoring may consist of random confirmatory vibration monitoring during the CCFM installation at the most critical properties. A post-condition survey should be carried out on an as-needed basis to be determined by the qualified building condition specialist or engineer.

6.4 Source Water Protection

No site-specific mitigation measures are required based on current source water regulations. However, general mitigation measures should be implemented during construction to manage surface water runoff and sediment load from the site.

7.0 Consultation

Consultation is an integral part of the MCEA process to ensure that study information is shared in a meaningful way, and that consideration is given to all aspects of the environment throughout the study process. The consultation efforts carried out as part of this Addendum are summarized herein.

A copy of all consultation activities and correspondence records is available within **Appendix F**.

7.1 Notice of Commencement

Two study notifications were prepared and issued as part of this Addendum; the Notice of Commencement and Notice of Addendum.

The Notice of Commencement was first published on the WUC website (www.enwin.com) on July 4, 2023, and posted within the Windsor Star newspaper on July 8, 2023. The purpose of the Notice of Commencement was to inform the public, First Nations, and agencies of the MCEA process and rationale for the addendum. The notice also briefly outlined the study area location and potential new CCFM alignment, and contact information for project team representatives.

The Notice of Commencement was hand delivered to tenants, residences and businesses located along the amended CCFM between July 4 and July 7, 2023, and issued via direct mail to property owners who do not reside at their property's location along the alignment on July 11, 2023.

In addition, the Notice of Commencement was issued to agencies and stakeholders on the study contact list via direct mail on July 6, 2023, followed by an electronic copy of the notice emailed to the study contact list on August 4, 2023.

A copy of the Notice of Commencement is available within **Appendix F.1**.

7.2 Agency Consultation

As part of the ongoing preliminary design process, initial telephone conversations, email and/or virtual meetings, were held with the CN/VIA Railway, CP Railway, Essex Terminal Railway, Hydro One, Enbridge Gas and the ERCA. As discussed within these

meetings, applications will be submitted to each of these entities as required for the locations where the CCFM will cross underneath their existing facilities.

In consultation with the City of Windsor, ROW permits will be issued for all locations where the CCFM will be within the municipal ROW. In addition, the City of Windsor confirmed that an Environmental Evaluation Report is not required as part of this project.

In addition, once detail design is complete, an Environmental Compliance Approval (ECA) application will be submitted to MECP.

7.3 First Nation Consultation

A copy of the Notice of Commencement was sent to the following First Nation communities via direct mail on June 28, 2023, followed by an electronic copy emailed on August 4, 2023:

- Chippewas of the Thames First Nation
- Chippewas of Kettle & Stony Point First Nation
- Oneida Nation of the Thames
- Caldwell First Nation
- Aamjiwnaang First Nation
- Bkejwanong Territory (Walpole Island)

The Notice of Commencement was also issued to Chippewas of the Thames First Nation on August 23, 2023 via NationsConnect.

To confirm their receipt of the Notice of Commencement and inform them of the upcoming Stage 2 AA field assessment scheduled for the fall of 2023, phone calls were made to all six First Nation communities in September 2023. However, none of the communities were available to participate in the Stage 2 AA field investigations.

In addition to the above, all six First Nation communities were circulated on the Notice of Addendum via direct mail and email on December 21, 2023.

A copy of correspondence with First Nations is provided within **Appendix F.4.**

7.4 Notice of Addendum

In accordance with the MCEA document (2023), notification of the Addendum filing was published on December 21, 2023. The purpose of the Notice of Addendum was to inform the public, First Nations, and agencies that the Addendum report has been completed and is available for a 30-day review period. The notice briefly outlined the purpose of the addendum, the amended central CCFM alignment, the Addendum process and how to provide feedback, as well as contact information for project team representatives.

The Notice of Addendum was communicated via newspaper advertisements in the Windsor Star publications on December 21, 2023, as well as posted on ENWIN's website (www.enwin.com/water/windsor-utilities-commission). The Notice of Addendum was also sent to the study contact list via mail and email on December 21, 2023 and hand delivered to tenants, residences and businesses located along the amended CCFM. All comments were requested to be received by January 26, 2024.

A copy of the Notice of Addendum is provided in **Appendix F.5**.

8.0 Summary of Potential Impacts, Mitigation Measures and Detail Design Commitments

The following potential impacts and mitigation measures were identified as part of this Addendum, which should be read in conjunction with the 2014 MCEA:

Table 2: Summary of Potential Impacts and Mitigation Measures

Potential Impact	Mitigation Measures and Detail Design Commitments
Trees and Vegetation	– Erect a fence 1.2 m high around the critical root zone (CRZ) of trees – Do not attach any signs, notices, or posters to any tree or damage the root system, trunk, or branches of any tree – Do not place any material or equipment within the CRZ of the tree or exhaust fumes from equipment towards any tree's canopy – Do not raise or lower the existing grade within the CRZ – Tunnel or bore when digging within the CRZ of any tree.
Contamination	– Dust could be controlled by using water instead of chemical suppressants in dust-sensitive areas such as the mapped natural heritage features. – No equipment should be permitted to enter natural areas beyond exclusionary fencing. – Equipment should be re-fueled 30 m away from the Grand Marais Drain to avoid potential impacts if an accidental spill occurs.
Erosion and Sediment	– Minimize the access and temporary workspace to the extent possible to limit destabilization of soils near the work area. – Silt fencing and/or barriers such as sediment logs (i.e., SiltSoxx™) could be used along all work zones where there is potential for sedimentation into the Grand Marais Drain. In addition to any specified requirements, additional silt fence and/or silt logs should be available on site, prior to grading operations, to provide a contingency supply in the event of an emergency. – All exposed soil areas should be stabilized (native seed mixes; sourced locally if possible) and re-vegetated, through the placement of seed and mulching or seed and an erosion control blanket, promptly upon completion of construction activities.

Potential Impact	Mitigation Measures and Detail Design Commitments
	– Sediment and erosion controls should be monitored regularly and properly maintained as required. – Controls are to be removed only after the soils of the construction area have been stabilized and adequately protected or until cover is re-established. – The limits of construction adjacent to natural features to be retained will be fenced prior to construction and monitored during construction (along with sediment and erosion control measures) to make sure that the limits are maintained with respect to vehicular traffic and soil or equipment stockpiling.
Migratory Birds	– Limit impacts to vegetation to occur outside of the general nesting period (March 29 to August 26). – If work must be performed within this window, a pre-clearing survey for active nests or breeding activity must be conducted by a qualified biologist before work commences. Such survey will expire after 5 days due to the potential for birds to establish nests after the survey has been completed. It is further recommended that a nest search occur within 48 hours of the start of planned construction activities.
Wildlife	– Construction should avoid sensitive timing windows when possible. If construction cannot avoid sensitive timing windows, they must follow appropriate mitigation measures to protect wildlife in the area (e.g., bird nest search, maternity roost bat survey, herptile fencing). – Site clearing (i.e., vegetation removal) should proceed in phases with the most disturbed part of the site being cleared first and the least disturbed last. – Construction equipment and vehicles are to yield to wildlife. – Inform construction personnel to not threaten, harass or injure wildlife. If wildlife species are encountered during construction, personnel are required to move away from the animal and wait for the animal to move off the construction site.
SAR	– Implement a worker awareness program for construction staff that includes SAR identification and habitat characteristics. – Conduct a daily pre-construction search of the work area to identify presence of SAR. – If threatened or endangered species are seen in or near the work area, stop work immediately. Take photographs, if

Potential Impact	Mitigation Measures and Detail Design Commitments
	possible, but do not interact with the animal. Species-specific mitigation measures are provided below. – Search construction areas and equipment before work commences each day and prior to starting equipment. If reptiles are encountered, they should be permitted reasonable time to move from the area. – If repeated observations of SAR snakes occur, a light-duty geotextile exclusion fencing is recommended around the perimeter of stockpiles, equipment storage locations and other areas of disturbance during the reptile active season (March 15 to September 30) – If Butler's Gartersnake and/or Eastern Foxsnake or specific habitat features supporting these species are anticipated to be impacted, an Information Gathering Form should be submitted to MECP to solicit formal review and comment on ESA requirements associated with the project. – Impacts/removals of mature trees, buildings and potentially suitable SAR Bat Maternity Roost tree, if required, should occur outside of the SAR bat active season (April 1 to September 30). – If SAR bats are observed using these features, and removal is required within this window, maternity exit surveys should be conducted during the evening hours and include visual and acoustic surveys following industry standards and accepted protocols as outlined by MNRF. – If SAR bats or specific habitat features (i.e., maternity roosts, hibernacula) supporting these species are anticipated to be impacted, an Information Gathering Form should be submitted to MECP to solicit formal review and comment on ESA requirements associated with the project.
Archaeological Resources	– A Stage 2 Archaeological Assessment shall be completed following this study for all areas retaining archaeological potential and that are potentially impacted by construction activities, including grading and laydown areas. – Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license. When all matters relating to archaeological sites within the project area of a development

Potential Impact	Mitigation Measures and Detail Design Commitments
	proposal have been addressed to the satisfaction of the MCM, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development. Until MCM clearance is obtained, no construction may occur on sites recommended for further archaeological fieldwork. – Should previously undocumented archaeological resources be discovered, all site alterations shall cease immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the Ontario Heritage Act (Government of Ontario 1990b). – As per the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c. 33 (Government of Ontario 2002) should any human remains be discovered during construction, the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services will be immediately notified.
Cultural Heritage	– Pre-construction documentation, installation of temporary demarcation around the construction workspace (i.e., by fencing, staking and/or flagging), and inclusion of the boundaries of CHL-2 on construction maps are recommended as mitigative measures prior to the return of the CHL to existing conditions. – Any further use of the property associated with CHL-2 that is deemed necessary, including but limited to the alteration of the test track path or changes to grading, will require the completion of a CHER so that heritage attributes of the landscape can be identified, and impacts can be further assessed and mitigated. Temporary impacts along the western and northern edges of the park as discussed in **Section 5.3** do not require additional cultural heritage evaluation. – As a preferred approach, construction activities should avoid properties previously identified as BHRs by establishing a 50 m buffer around the resource using appropriate measures such as construction mapping and temporary fencing. Staging and laydown areas should also be selected so that they are non-invasive and avoid any BHRs. – Where avoidance of a resource within 50 m of project construction (tunnelling activities) is not feasible, a qualified building condition specialist or engineer shall develop a

Potential Impact	Mitigation Measures and Detail Design Commitments
	strategy to carry out condition surveys and vibration monitoring, if and where required. The pre-condition survey will consist of screening activities to identify critical properties and determine appropriate vibration levels based on building type, age and condition. Vibration monitoring may consist of random confirmatory vibration monitoring during the CCFM installation at the most critical properties. A post-condition survey should be carried out on an as-needed basis to be determined by the qualified building condition specialist or engineer.

8.1 Permits and Approvals

ENWIN shall secure all necessary permits and/or authorizations required for the modifications. Approval requirements will be addressed for the project during detail design and may include the following:

- VIA/CNR, Essex Terminal and CPR – railway crossing permits;
- Ford Motor Canada – property easement agreement;
- Essex Region Conservation Authority – crossing permit;
- City of Windsor – Right-of-Way Permit(s);
- MECP – ECA;
- Health and safety requirements during construction under Ontario's Occupational Health and Safety Act;
- Notification to respective utilities within the area;
- O.Reg. 158/06 permitting requirements along the proposed alignment; and
- MCM written approval and/or clearance of the Stage 2 AA report.