



August 21, 2020

BY E-MAIL ONLY (EAmmodernization.MECP@ontario.ca)

Ms. Antonia Testa
Ministry of Environment, Conservation and Parks
Environmental Assessment Branch
135 St. Clair Ave., W.
Toronto, ON M4V 1P5

Dear Ms. Antonia Testa:

Re: Proposed regulation for a streamlined environmental assessment process for the Ministry of Transportation's Greater Toronto Area West Transportation Corridor project (ERO #019-1882)

Thank you for the opportunity to comment on the Ministry of Environment, Conservation and Parks' (MECP) Environmental Registry (ERO) posting on a proposed regulation to update the existing environmental assessment process for the Ministry of Transportation's Greater Toronto Area (GTA) West Transportation Corridor.

The Toronto and Region Conservation Authority (TRCA) conducts itself in accordance with the objects, powers, roles and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting activities. TRCA is:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement;
- A regulatory authority under section 28 of the *Conservation Authorities Act*;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, and as stated in the *Made-In-Ontario Environment Plan*, TRCA works in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources. TRCA provides technical support to its municipal partners, as a Source Protection Authority and through Memorandums of Understanding and Service Level Agreements in implementing the natural heritage, natural hazard and water resource policies of municipal and provincial plans.

Government Proposal

As part of the government's commitment to modernize the environmental assessment program, MECP is proposing a regulation to update the existing environmental assessment process for the Ministry of Transportation's (MTO) GTA West Transportation Corridor. The proposed regulation would create a new streamlined process for assessing potential impacts of the project, as well as consulting on it.

The Terms of Reference for MTO's GTA West Corridor environmental assessment was approved on March 4, 2008. Stage 1 of the GTA West environmental assessment study (Systems Planning) recommended a Transportation Development Strategy (TDS), which was completed in November 2012. This strategy identified the need for more road capacity beyond optimizing the existing transportation network, widening existing highways, and the transit expansion projects identified by Metrolinx.

Stage 2 of the GTA West environmental assessment study (Route Planning and Preliminary Design) is currently underway. Building on recommendations from Stage 1, the GTA West environmental assessment will identify the route, determine interchange locations and complete the preliminary design for a new transportation corridor within the Route Planning Study Area. We note that on August 7, 2020, the [Preferred Route](#) and 2020 Focused Analysis Area for the GTA West Transportation Corridor Route Planning and Environmental Assessment Study was announced.

The ERO posting indicates that the streamlined environmental assessment (EA) process would shorten the project schedule by completing the preliminary design study in 2022 instead of 2023 or beyond. Further it states that modifying the EA process would lead to more efficient design and construction phases and provide flexibility for the delivery model selected in the future.

General Comments

Within TRCA's jurisdiction, the Study Corridor for the GTA West extends from Highway 400 in the City of Vaughan, west through the Town of Caledon and City of Brampton to approximately Heritage Road, crossing the Humber River and Etobicoke Creek watersheds. The technically preferred route crosses multiple TRCA-owned properties; multiple significant natural heritage features, including valley and stream corridors, headwater streams, forests, wetlands and will impact core features, habitats, species and wildlife connectivity; could create or exacerbate flood and erosion hazards; will increase chloride contamination in natural features; and reduce the ability of our natural areas to be resilient to the impacts of climate change.

TRCA has been actively engaged in the GTA West review process since its inception, including regular reporting to TRCA's Board of Directors in 2011 (Stage 1 of the EA) and in 2015 and 2016 (Stage 2 of the EA). On October 21, 2016, in coordination with Conservation Halton and Credit Valley Conservation, TRCA presented recommendations to the GTA West Advisory Panel. On October 28, 2016, through resolution #A171/16, as amended, TRCA's Board of Directors recommended that the EA be completed and that the Advisory Panel consider numerous sustainability, natural heritage and compensation considerations. Most recently, a [comprehensive staff report](#), (with links to previous reports noted), was brought to the Board of Directors, Meeting #11/19 on January 24, 2020, highlighting TRCA's concerns, along with 32 recommendations regarding the technically preferred route for the GTA West Transportation corridor being developed in Stage 2 of the environmental assessment study process. A copy of this Board report and the adopted amended resolution #A233/19 has been enclosed as part of this submission (Attachment 1). Representatives of MTO and the project consulting team gave a [presentation](#) on the GTA West Corridor Route Planning and EA Study – Stage 2 to the Board of Directors at this meeting.

Subsequent meetings were held with MTO, their consultants and other provincial and federal agencies to further discuss the broader study corridor and more specifically, Segment 7 (Highway 427 interchange) and Segment 8 (east of Highway 427 interchange to east of Kipling Avenue in the City of Vaughan). A copy of TRCA's detailed comment letter on the Segments 7 and 8 alternatives dated July 3, 2020 is enclosed as part of this submission (Attachment 2).

MTO has been requested by the Board of Directors to provide written responses to all TRCA letter comments and Board recommendations, and to present to the Board at later stages of the study. Our comments to date on this project have not been addressed nor have we received a formal response to any of our comments.

However, the GTA West Project Team advised TRCA staff on August 20, 2020 that they will be responding to TRCA's January Board Report resolution and TRCA comments on Sections 7 and 8 alternatives in September. TRCA staff will be updating the Board of Directors in September on the recently announced preferred GTA West route. Based on an initial, high level review of the preferred route, TRCA's previous comments and recommendations remain relevant to inform this ERO posting.

Critical Role of Conservation Authority Watershed-Based Review

Given that TRCA is a commenting body under both the planning and EA processes and an advisor to our municipal partners on their Master Plans, TRCA reviews several types of public infrastructure proposals from both public and private proponents. This is important for consideration of the cumulative impacts that come from multiple infrastructure projects being proposed in TRCA watersheds combined with numerous private development proposals under the *Planning Act*.

Through service level agreements with municipalities, and other public infrastructure providers (e.g., Metrolinx, Enbridge Gas Distribution), TRCA provides technical advice during the completion of various EAs, as well as at later stages of detailed design and construction under our regulatory role. Where a Crown agency is exempt from the regulatory requirements of the CA Act, TRCA has service agreements in place with select agencies to offer review and comment on a voluntary basis (Voluntary Project Review (VPR); uptake on voluntary review highlights the need for provincial infrastructure to be protected from natural hazards of flooding and erosion. Strongly linked to this is the need to manage natural resources, critical for resiliency of natural systems and infrastructure due to the impacts of urbanization and the compounding effects of climate change.

As MTO is exempt from the regulatory requirements of the CA Act, TRCA has significant concerns there is no mechanism in place for the protection of life and property or the management of natural resources at the detailed design stage of the GTA West, which fails to fulfill the objects of the EA Act. The mandate of CAs strongly aligns with provincial objectives for resilient public infrastructure and meeting the intent of the EA Act to provide for the protection, conservation and wise management of Ontario's environment. Accordingly, TRCA's Board of Directors have recommended that MTO commit to receiving VPR signoff at the design stage as it relates to TRCA's regulatory and policy interest, as well as provincially delegated responsibilities

Coordination with the Northwest GTA Transmission Corridor Identification Study

TRCA recently provided comments to the Ministry of Energy, Northern Development and Mines' (ENDM) in response to Environmental Registry posting (ERO#019-1503) on the proposal to identify and protect a corridor of land for future electricity infrastructure in the Greater Toronto Area (GTA), in support of future growth in Halton, Peel and York regions. A copy of TRCA's submission to the ERO dated June 8, 2020 has been enclosed as part of this submission (Attachment 3). The currently proposed narrowed area of interest for the transmission corridor largely corresponds to the Ministry of Transportation's (MTO) 2019 Focused Area Analysis for the GTA West (EA). To assess the potential for cumulative impacts, these two studies should be coordinated or ideally as one initiative, like the Province's Parkway Belt West Plan initiative in the 1970s.

TRCA's Board of Directors, through amended resolution #A233/19, recommended that the Ministry of Transportation and the Ministry of Energy, Northern Development and Mines/Independent Electricity Systems Operator confirm efforts to coordinate their independent studies and ensure negative impacts are fully assessed and minimized wherever practicable. It was reiterated in TRCA's ERO submission that in addition to co-locating the transmission corridor with the GTA West Transportation Corridor, that the planning processes for these two major projects be coordinated in order to optimize opportunities to avoid, minimize, mitigate and compensate for environmental impacts.

Coordination with Planning Act processes in the Area of the Proposed Regulation

We note that some of the areas within the preferred alignment appear to impact previously approved secondary plans (e.g., North Kleinburg Secondary Plan in Vaughan) and areas of Bolton in Caledon where environmental work and studies is underway or where LPAT appeals or other issues remain outstanding. We recommend additional consultation with our partner municipalities within the area of the proposed regulation to avoid such conflicts.

Proposed Regulation – TRCA Recommendations

A proposed draft regulation has not been included as part of this ERO posting; rather the posting generally describes the requirements of the various stages of the process, (e.g., preliminary/detail design and consultation, after detailed design, early works, etc.), that are proposed to be included in the regulation (refer to Table 1 below). No timelines associated with the various stages have been proposed, other than to note in the posting that the preliminary design is to be completed by 2022.

The construction of the GTA West Transportation Corridor will have significant environmental and long-term impacts to the integrity of Humber River and Etobicoke Creek watersheds within TRCA's jurisdiction, as documented through the extensive engagement of TRCA staff and Board of Directors in the EA review process. To date, TRCA's legislated, provincially delegated, regulatory, landowner and service provider interests have not been addressed. In order to support the government's proposal to update the existing environmental assessment process for the GTA West Transportation Corridor with a regulation to create a new streamlined process for assessing potential impacts of the project, as well as consulting on it, and continue to ensure the protection of people and property from natural hazards and the conservation of natural resources, TRCA recommends the following:

- 1) That the regulation requires the Ministry of Transportation (MTO) to address the recommendations on the GTA West Transportation Corridor adopted by the Board of Directors at Meeting #11/19 on January 24, 2020, by amended resolution #A233/19, as per Attachment 1 of this submission.
- 2) That the regulation requires MTO to address TRCA's comments on the route options within Segments 7 and 8 of the GTA West Transportation Corridor Route Planning provided in correspondence dated July 3, 2020, as per Attachment 2 of this submission.
- 3) That the regulation requires MTO to commit to TRCA's Voluntary Project Review process, as per Attachment 1.
- 4) That MTO, the Ministry of Energy, Northern Development and Mines/Independent Electricity Systems Operator be required to confirm efforts to coordinate their independent studies (GTA West and Northwest GTA Transmission Corridor Identification Study) and ensure negative impacts are fully assessed and minimized wherever practicable, per Attachment 1.
- 5) Further to Recommendation 4, that TRCA's recommendations to the Ministry of Energy, Northern Development and Mines in response to ERO#019-1503, dated June 8, 2020 as per Attachment 3 to this submission be considered in the proposed regulation.
- 6) That the comments and recommendations provided in Table 1 be considered in the development of the proposed regulation.

Further to the above, we offer the following additional comments organized by the various stages and requirements to be included in the proposed regulation as described in the ERO posting. **Bolded text** indicates TRCA's main suggestions and recommendations for the Ministry's consideration.

Table 1: TRCA Comments on ERO #019-1882

Proposal	Comments
<p>In consultation with the Ministry of Transportation, we are proposing a regulation to modify the existing environmental assessment process for the GTA West Transportation Corridor project. The proposed regulation would create a new streamlined process for assessing potential environmental impacts as well as consulting on it.</p>	<p>As noted in the ERO posting, a Terms of Reference was prepared and approved by the Minister in 2008 as part of the GTA West Individual Environmental Assessment (EA). Individual EAs are to be completed for large-scale, complex projects which have the potential for significant environmental effects. It is our understanding that the Individual EA (IEA) process will be replaced by the proposed regulation, however, in the absence of a draft regulation, the details regarding process, deliverables, how/when this process will address stakeholder issues, etc. and how the work previously completed on this EA will be incorporated into the new process. The proposed regulation should set out a clear and transparent process, particularly related to next steps, how issues will be resolved, and timing.</p> <p>An explanatory flow chart would be helpful in future communications.</p>
<p>The proposed regulation for a streamlined environmental assessment process for the Ministry of Transportation’s GTA West Transportation Corridor project builds on our vision for a modern environmental assessment program. It does this by eliminating duplication with other planning and approvals processes and as a result, shortening timelines for building important infrastructure for Ontario communities.</p>	<p>Please confirm what duplication is being eliminated as MTO is now in Stage 2 of their EA process (final stage). The next stage should be to evaluate the alternative methods and designs in order to determine the preferred. This stage is imperative as it is through these studies that siting is confirmed, crossing sizes and structures are determined. Without the context of a draft regulation, it is unclear if this stage will be eliminated or it is this stage that is seen as duplication.</p> <p>Once the EA has been completed and approved with or without conditions by the Minister of Environment, Parks and Conservation, the project would then move to detailed design at which time further refinement of the preferred alternative design including the engineered design of the proposed highway would take place.</p> <p>As a streamlining measure, TRCA recommends that a protocol be developed for harmonizing federal approvals and any other provincial approvals early in the process to avoid delays prior to detailed design.</p>
<p>Shortened timelines would speed up completion of the preliminary design phase of the project, providing earlier confirmation of the transportation corridor to local communities, municipalities, and Indigenous communities. More broadly, this could</p>	<p>What are the shortened timelines? With the existing EA process, there are flowcharts and defined processes. A clear graphic showing the proposed process, deliverables, including timelines is recommended.</p>

Proposal	Comments
<p>allow construction to start earlier, which would ease congestion in the study area more quickly from its intersection with Highway 400 west to its intersection with Highway 401/407 ETR.</p>	
<p>Modifying the existing environmental assessment process for the GTA West Transportation Corridor project would lead to more efficient design and construction phases and provide flexibility for the delivery model selected in the future.</p>	<p>While we understand that the EA process for the GTA West Transportation Corridor project is lengthy, this project will have significant, unavoidable and permanent impacts to the existing natural heritage system and the Humber River and Etobicoke Creek watersheds and could exacerbate risks to natural hazards, and negatively impact drainage patterns, wildlife habitat and the surrounding landscape. It is unclear how the proposed modifications to the process will lead to more efficient design and construction phases.</p>
The preliminary/detail design and consultation	Comments
<p>Under the proposed regulation, the Ministry of Transportation would still be required to complete preliminary/detail design and consultation as a requirement of conditions outlined in the regulation. This would include</p> <ul style="list-style-type: none"> • completing field investigations and collecting technical information that would be documented in the reports noted below • continuing public and stakeholder consultation consistent with previous commitments • continuing consultation with Indigenous communities <p>Specifically, this streamlined process would require the Ministry of Transportation to prepare an Environmental Conditions report. This report would be documentation of all work completed from the start of the project up until the completion of the preliminary design phase. The report would help expedite timelines and provide certainty in the process, which in turn</p>	<p>Design Completion:</p> <p>Field investigations and technical information at this stage should be comprehensive to ensure the Environmental Conditions report is complete and the preliminary design is based on appropriate information. Specific design nuances, impacts, and construction methodologies are not required at this time. However, enough information needs to be collected and determined to ensure the preliminary design is feasible, based on actual existing conditions and manages all natural features and hazards within the alignment.</p> <p>The proposed Environmental Conditions report appears to be similar to the current IEA report as it will document previous work up to preliminary design. Will any steps be eliminated in the proposed process? What status will a published Environmental Conditions report have? Will MECP approve it and at what point would the public or interested stakeholders be allowed to comment?</p> <p><u>Selection of the Future Delivery Model</u></p> <p>Through the current IEA process, the Minister typically issues Conditions of Approval and as such, Ministerial directives ensure that certain requirements at the design stage are met by MTO. The process being described in the ERO posting seems to be moving towards a self-regulating process. It is recommended that the provisions in the proposed regulation provide certainty that the interests of TRCA will be addressed by MTO. Additionally, the regulation should require a transparent process to resolve issues.</p>

Proposal	Comments
<p>would support selection of the future delivery model.</p> <p>The Ministry of Transportation would also be required to:</p> <ul style="list-style-type: none"> • complete and publish a draft Environmental Conditions report which identifies the study area and a preliminary design for the project, existing environmental conditions in the area, a plan to deal with any known environmental impacts identified at this stage, and a consultation record • notify and consult with government agencies, stakeholders, the public, and Indigenous communities about the Environmental Conditions report • publish a final Environmental Conditions Report that includes a record of the consultation and a description of if and how the preliminary design was changed as a result of that consultation <p>The Ministry of Transportation would also be required to develop an issues resolution process that replaces the public objections process.</p>	<p>Conservation Authorities (CAs) have a delegated responsibility to represent the provincial interest on natural hazards. The proposed regulation should clearly set out the consultation process with CAs and how CA interests will be addressed. TRCA’s comments to date on this project have not been addressed but we are looking forward to seeing them addressed by MTO as soon as possible.</p> <p>It is TRCA’s experience with other MTO projects that the MTO detailed design process could be significantly improved to better protect the natural environment. Unfortunately, on other MTO projects we have observed that the implementation of environmental controls has been weaker than controls and mitigation measures imposed or found with typical municipal or private developments. The Project Specific Output Specification (PSOS) agreements that are used by the province to engage future design-build consortiums (ProjectCo.) allow for design and construction practices to go forward without substantive or meaningful engagement with CAs. As such, there is a high risk that the first principle of the environmental assessment, to protect the environment, may not be achieved as TRCA’s regulatory interests of natural hazard and natural heritage management may not be addressed in the PSOS.</p> <p>To this end, TRCA has engaged with Crown Agencies, such as Metrolinx, and worked through a voluntary project review (VPR) process to ensure TRCA’s regulatory interests are addressed at the detailed design stage. With Metrolinx, TRCA has an established service level agreement whereby we are contracted to provide regulatory type reviews in accordance with our regulatory, natural heritage and natural hazard mandate, policies and programs. To a very limited extent, TRCA has provided this service on a fee for service basis to MTO on other projects. TRCA has also been involved in framing and contributing to the PSOS on a confidential basis on other AFP projects. It is recommended that through the regulation and similar agreements we have with Metrolinx, Waterfront Toronto, Infrastructure Ontario, etc., that MTO be required to develop a Service Level Agreement (SLA) with TRCA and that through the PSOS Agreement, ProjectCo. involve TRCA in the preparation of conditions and in commercially confidential meetings related to those conditions and that ProjectCo. be required to follow the TRCA Voluntary Project Review (VPR) process.</p>

After detail design	Comments
<p>Once the detail design is complete, the Ministry of Transportation would be required to:</p> <ul style="list-style-type: none"> • complete and publish a draft Environmental Impact Assessment report which will include the elements of the final Environmental Conditions report (including any changes) based on detail design and works that have not proceeded through the early works process (described below), along with impact assessment and a proposed plan to deal with any environmental impacts • notify and consult with government agencies, stakeholders, the public, and Indigenous communities about the draft Environmental Impact Assessment report • publish the final Environmental Impact Assessment report which will include a record of the consultation, and a description of if and how the Environmental Impact Assessment was changed as a result of that consultation • document any changes made to the project, for example as a result of public and Indigenous consultation, after the Environmental Impact Assessment report has been completed • notify government agencies, stakeholders, the public, and Indigenous communities of any significant changes and provide an opportunity to review those changes • address any outstanding concerns through an issue's resolution 	<p>Will publication of the final Environmental Impact Assessment report allow for further consultation on items that are not considered significant changes? Again, definition and examples of what significant changes include should be provided. It must be clearly identified to what level the design will be completed prior to publishing the Statement of Completion (60%, 90%, 100%). A very clear, defined and robust review process should be established that clearly identifies levels of public and government agency consultation. Commitment to considering the results of the environmental impact report and to mitigating impacts must be made.</p> <p>The impact assessment report must include opportunities and requirements for mitigation and compensation where avoidance is not possible. Vegetation losses compensated for at a 1:1 compensation ratio, as MTO typical practice, is considered insufficient. The TRCA or Metrolinx compensation guidelines should be reviewed by MTO and a similar guideline established and followed for this project in the EA documentation and the PSOS requirements.</p> <p>It is imperative that impacts to TRCA owned lands be minimized. Compensation at market value according to TRCA's accepted practice for valuation of these lands should be considered in the conditions statement, as well as in the costing of the design solution with the goal of minimizing such impacts recognized as imperative. The conditions statement should also include a review of opportunities for public realm benefits (trail connections, trailheads, etc.) and a commitment to include as possible, integrated opportunities in the project design.</p>

<p>process administered by the Ministry of Transportation</p> <ul style="list-style-type: none"> publish a Statement of Completion noting their intent to proceed with the project 	
Early works	Comments
<p>Certain parts of the GTA West Transportation Corridor project are expected to be ready for construction earlier than other parts of the highway.</p> <p>To provide flexibility, the proposed regulation would permit early works to proceed to construction before the completion of the draft Environmental Impact Assessment Report, subject to:</p> <ul style="list-style-type: none"> Ministry of Transportation fulfilling the duty to consult if there is a potential for adverse impacts on Aboriginal and treaty rights requirements for consultation identification of impacts and mitigation measures issues resolution <p>Preliminary early works activities could include:</p> <ul style="list-style-type: none"> new bridge construction bridge replacement or expansion transitway station construction utility relocation <p>The Ministry of Transportation will be able to complete an Early Works report for public comment and consultation with Indigenous communities at any point prior to completion of the draft Environmental Impact Assessment report.</p> <p>The process for public and Indigenous community consultation, posting of reports, and issues resolution would be</p>	<p>Early works, including bridge works, drive many impacts on the natural environment. It is not appropriate to allow construction to proceed prior to the completion of the Environmental Impact Assessment Report. This, in effect, would render the EIAR ineffective as it would not have the opportunity to identify and avoid impacts. Early works should only be allowed to proceed once the general feasibility of the works is demonstrated. Specific impacts do not need to be defined at this stage. However, the decisions made that drive the major impacts associated with these works should go through a rigorous EA process. This will ensure decisions are based on comprehensive information, resulting in avoidance of impacts to the natural environment to the extent feasible and appropriate avoidance and management of natural hazards.</p> <p>Early works have the potential to cause significant environmental damage if not designed to ensure appropriate sizing, spans, pier locations, wildlife crossings, stormwater management, staging, storage and access routes, etc. MTO needs to clarify how designs will proceed when the environmental investigations, assessments and mitigation/compensation requirements have yet to be determined.</p> <p>Much of these early works will impact lands owned or regulated by TRCA, significant natural heritage features, and are of significant concern from a natural hazard perspective particularly as it relates to flooding and erosion. Specifically, the proposed list of preliminary early works activities are projects that could have significant environmental impacts, as well as risks to natural hazards such as flooding and erosion. The construction of new bridges for instance could have a detrimental impact to existing active uses and large dynamic valley systems. For example, as a landowner, reviewer and stakeholder at the Nashville Conservation Reserve, the bridge crossing of the Humber River valley, if designed with a less than optimal span could result in detrimental impacts to the NHS, exacerbate erosion issues, impact flood plain and also impact active uses within the area.</p> <p>Other examples include the proposed crossings at Robinson Creek near the Highway 427 interchange as well as crossings near the Highway 410 interchange where provincially significant wetlands and woodlands will be impacted. Moving forward with any of these and other crossings will completely decimate watercourses and wetlands</p>

<p>the same as for the Environmental Impact Assessment report.</p>	<p>within our highly urbanizing area, potentially impact hydraulics and flood elevations within surrounding areas of the proposed highway and further restrict wildlife movement/corridors.</p> <p>Transitway station construction is also a major undertaking which could have serious impacts to the system. Projects that may result in large scale impacts on the natural system and surrounding area should not be fast-tracked through the process and should be carefully studied to ensure impacts are avoided and minimized.</p> <p>It is recommended that the scope of early works be limited to typical low risk activities such as land assembly, staging, stockpiling, in lower risk areas of the project or those projects that would result in smaller, less intrusive impacts.</p> <p>Should the scope of early works remain as proposed, it is requested that a 30% detailed design be required and reviewed by TRCA and other relevant government agencies and stakeholders to confirm potential impacts, feasibility and mitigation measures prior to the approval of the early works.</p>
Other considerations	Comments
<p>The new environmental assessment streamlined process would also require:</p> <ul style="list-style-type: none"> • an addendum process for both the Early Works Report and Environmental Impact Assessment Report to deal with any changes to the project that were not included in the original reports: <ul style="list-style-type: none"> ○ minor changes can proceed without further consultation ○ significant changes will require a report with opportunity for the public and Indigenous communities to provide input and submit comments ○ the process will allow for documenting, publishing, and evaluating the need for an addendum, as well as documenting the 	<p>Please clearly define what “minor” changes are versus “significant” changes means.</p> <p>In the 407 projects, many of the agreed to bridge and culvert sizes were modified. CAs were provided with DCRs (design construction reports) that outlined what the changes were to be. While TRCA could provide comments, there was no stipulation that comments were to be addressed. Flood modeling, erosion control and stream design were completed but not to CA standards. Mitigation was 1:1 vegetation removal (trees) only and did not address habitat form and function loss, etc. GTA West planning, design and construction should be much improved based on lessons learned from the 407 Extension to avoid these issues and reduce the potential for negative impacts.</p> <p>Public and government review processes must include a mechanism for both for review and changes.</p>

<p>changes that would be available for public review</p> <ul style="list-style-type: none"> publishing of addendum reports based on reporting requirements for the Early Works report and Environmental Impact Assessment report an issues resolution process administered by the Ministry of Transportation to address any outstanding concerns during the consultation periods continued Indigenous consultation throughout each of the phases outlined above, including the submission of an Indigenous Consultation Plan to the Ministry of the Environment, Conservation and Parks at the start of the process <p>This streamlined environmental assessment process would shorten the project schedule by completing the preliminary design study in 2022 instead of 2023 or beyond. It would also remove duplication between <i>Environmental Assessment Act</i> requirements and other specific legislation, as well as the Ministry of Transportation standards and practices, while maintaining environmental considerations.</p> <p>The proposed regulation would save time by allowing the Ministry of Transportation to apply for, and obtain permits and approvals required for construction. These approvals would be subject to consultation or other requirements associated with those processes, and to meeting the requirements set out in the regulation.</p>	
<p>Regulatory impact statement</p>	<p>Comments</p>
<p>The objective of the proposed regulation is to support the maintenance and implementation of critical roadway infrastructure in Ontario and ensure that:</p>	<p>We would also request that another objective of this regulation be to work with government agencies and municipalities within the study area to “protect the environment”. We believe it would be opportune for MTO, like Metrolinx and Waterfront Toronto, to</p>

<ul style="list-style-type: none"> • appropriate consultation occurs • the protection of the environment remains a priority <p>There are no direct compliance costs or new administrative burdens associated with the proposed regulation, as there will be a streamlined process to address the requirements of the <i>Environmental Assessment Act</i>. There are also other applicable provincial and federal approvals and permits that would still be required.</p> <p>The proposed regulation will eliminate duplication, allowing us to shorten timelines, reduce delays, and focus the province’s resources on projects that matter most to Ontario communities.</p>	<p>partner with TRCA to help protect the natural environment in the study area.</p>
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Thank you once again for the opportunity to provide comments on the regulation for a streamlined environmental assessment process for the Ministry of Transportation’s Greater Toronto Area West Transportation Corridor project. We would respectfully request the opportunity to meet with relevant provincial staff to discuss the comments and recommendations of our submission further and ensure that TRCA’s interests are incorporated into the proposed regulation. Please contact the undersigned at 416.667.6290 or at john.mackenzie@trca.ca.

Sincerely,

<Original signed by>

John MacKenzie, M.Sc. (PI) MCIP, RPP
 Chief Executive Officer

BY E-MAIL

cc: Honourable Jeff Yurek, Minister of the Environment, Conservation and Parks
 Honourable John Yakabuski, Minister of Natural Resources and Forestry
 Honourable Steve Clark, Minister of Municipal Affairs and Housing
 Honourable Greg Rickford, Minister of Energy, Northern Development and Mines
 Regional Chair and Members of Council of the Regional Municipality of York
 Regional Chair and Members of Council of the Regional Municipality of Peel
 Mayor and Members of Council, Town of Caledon
 Mayor and Members of Council, King Township
 Mayor and Members of Council, City of Vaughan

TRCA: Laurie Nelson, Director, Policy Planning and Regulation
 Sameer Dhalla, Director, Development and Engineering Services
 Beth Williston, Associate Director, Infrastructure Planning and Permits

Attachment 1 – MTO January 24, 2020 TRCA Board Report and Resolution
Attachment 2 – GTA West – Segments 7 and 8 – TRCA Comments – July 3, 2020
Attachment 3 – Letter – Ministry of Energy, Northern Development and Mines, ERO#019-1503

February 20, 2019

Sent via email

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RE: GTA West Transportation Corridor Individual Environmental Assessment

Toronto and Region Conservation Authority (TRCA) Board of Directors, at its meeting #11/19, held on January 24, 2020, adopted amended resolution #A233/19 as follows:

WHEREAS on June 19, 2019 the Minister of Transportation resumed the GTA West Transportation Corridor Route Planning and Environmental Assessment Study (GTA West) and subsequently updated their comprehensive evaluation, identified MTO's technically preferred route, and sought public input;

WHEREAS in June 2019 the Ministry of Energy, Northern Development and Mines and the Independent Electricity System Operator initiated the Northwest GTA Transmission Corridor Identification Study to identify a transmission corridor in order to protect for future transmission infrastructure required to support increasing electricity demand;

WHEREAS the GTA West technically preferred route within TRCA's jurisdiction crosses multiple TRCA-owned properties, multiple significant natural heritage features, including valley and stream corridors, headwater streams, forests, wetlands, and will impact core features, habitats, species and wildlife connectivity; could create or exacerbate flood and erosion hazards; will increase chloride contamination in natural features; and reduces the ability of our natural areas to be resilient to the impacts of climate change;

WHEREAS on October 28, 2016 the TRCA Board of Directors in its Resolution #A171/16, as amended, recommended that the environmental assessment (EA) be completed and that the Advisory Panel take into account numerous sustainability, natural heritage and compensation considerations (see link to previous TRCA reports as provided in the body of this report);

WHEREAS TRCA has not yet been provided with detailed technical information that supports the Province's technically preferred route, or has not yet been engaged in any detailed technical discussions regarding the technically preferred route;

AND WHEREAS following provincial confirmation of the final preferred route, we are informed that MTO will develop preliminary design alternatives, seek public input prior to finalizing the preferred alternative for the highway design, and will then seek approval of the EA from the Minister of the Environment, Conservation and Parks;

THEREFORE, LET IT BE RESOLVED THAT TRCA staff continue to work with MTO staff and municipal partners through the Regulatory Agency Advisory Group, through the Greenbelt Transportation Advisory Group, and through an established working group with TRCA, other affected conservation authorities, municipalities and provincial and federal ministries, to address concerns related to potential alignment changes to the technically preferred route to accommodate development and community interests, as well as concerns related to the preferred design alternatives, including concerns

related but not limited to: watercourse and wildlife crossings and trail connections, flood and erosion control, stormwater management, vegetation removals, natural heritage restoration and compensation, land acquisition and archaeology, and climate resiliency;

THAT the 32 Recommendations contained within this report and in Attachment 4 to this report be approved for review by MTO;

THAT recommendation 28 contained within this report and in Attachment 4 to this report be revised to read as follows: MTO recognize trail networks in the preliminary design alternative and ensure connectivity, parking, and access is maintained through efforts including but not limited to the design and construction of planned trail networks in the Focused Analysis Area of the Corridor including segments of the TRCA Regional Trail Strategy for the Greater Toronto Region, the Vaughan Super Trail, and trail networks identified in the Region of Peel's Active Together Master Plan and regional and local Official Plans;

THAT MTO be requested to provide written responses to all TRCA letter comments and Board recommendations; hard copies of all technical studies in support of the technically preferred route and any proposed modifications for review and comment; hard copies of technical studies in support of preliminary and preferred design alternatives for review and comment; and hard copies of the draft EA and associated appendices for review and comment, in accordance with TRCA service delivery standards;

THAT MTO be requested to present to the TRCA Board of Directors at later stages of the study after detailed information requested by TRCA and its municipal partners has been shared and reviewed by TRCA and municipal staff;

THAT the Ministry of Transportation; Ministry of the Environment, Conservation and Parks; Ministry of Natural Resources and Forestry, Ministry of Energy, Northern Development and Mines, the Independent Electricity System Operator; Regional Municipalities of Peel and York; Town of Caledon, City of Brampton and City of Vaughan; Credit Valley Conservation and Halton Conservation; as well as Members of Provincial Parliament, representing electoral districts within the project area, be circulated a copy of this staff report;

AND FURTHER THAT TRCA staff report back to the Board of Directors and seek further direction once the preliminary design alternatives and technical appendices are provided to staff for review and comment.

Here is a [link to the minutes](#) for your information and any action deemed necessary, containing the report as approved by the Board of Directors. The report is further attached to this letter. Of particular interest to you may be thirty-two (32) recommendations provided by TRCA to the Ministry of Transportation. If you have any questions or require additional information, please contact Sharon Lingertat at 416-661-6600 ext. 5717, sharon.lingertat@trca.ca or Beth Williston at 416-661-6600 ext. 5217, beth.williston@trca.ca.

Sincerely,

<Original signed by>

Aiisa Mahrova
Clerk and Manager, Policy

c: John MacKenzie, Chief Executive Officer, TRCA
Sameer Dhalla, Director, Development and Engineering Services, TRCA
Beth Williston, Associate Director, Infrastructure Planning and Permits, TRCA
Sharon Lingertat, Senior Planner, Infrastructure Planning and Permits, TRCA

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Hon. Stephen Lecce, Minister, Education, MPP, King-Vaughan
Hon. Sylvia Jones, Solicitor General, MPP Dufferin-Caledon
Hon. Ted Arnott, Speaker MPP, Wellington-Halton Hills
Todd Coles, City Clerk, City of Vaughan

RES.#A233/19 -

GTA WEST TRANSPORTATION CORRIDOR INDIVIDUAL ENVIRONMENTAL ASSESSMENT

To highlight TRCA concerns and recommendations regarding the Ministry of Transportation (MTO) technically preferred route for the Greater Toronto Area (GTA) West Transportation Corridor being developed in Stage 2 of the environmental assessment study process.

Moved by: Linda Jackson
Seconded by: Michael Palleschi

WHEREAS on June 19, 2019 the Minister of Transportation resumed the GTA West Transportation Corridor Route Planning and Environmental Assessment Study (GTA West) and subsequently updated their comprehensive evaluation, identified MTO's technically preferred route, and sought public input;

WHEREAS in June 2019 the Ministry of Energy, Northern Development and Mines and the Independent Electricity System Operator initiated the Northwest GTA Transmission Corridor Identification Study to identify a transmission corridor in order to protect for future transmission infrastructure required to support increasing electricity demand;

WHEREAS the GTA West technically preferred route within TRCA's jurisdiction crosses multiple TRCA-owned properties, multiple significant natural heritage features, including valley and stream corridors, headwater streams, forests, wetlands, and will impact core features, habitats, species and wildlife connectivity; could create or exacerbate flood and erosion hazards; will increase chloride contamination in natural features; and reduces the ability of our natural areas to be resilient to the impacts of climate change;

WHEREAS on October 28, 2016 the TRCA Board of Directors in its Resolution #A171/16, as amended, recommended that the environmental assessment (EA) be completed and that the Advisory Panel take into account numerous sustainability, natural heritage and compensation considerations (see link to previous TRCA reports as provided in the body of this report);

WHEREAS TRCA has not yet been provided with detailed technical information that supports the Province's technically preferred route, or has not yet been engaged in any detailed technical discussions regarding the technically preferred route;

AND WHEREAS following provincial confirmation of the final preferred route, we are informed that MTO will develop preliminary design alternatives, seek public input prior to finalizing the preferred alternative for the highway design, and will then seek approval of the EA from the Minister of the Environment, Conservation and Parks;

THEREFORE, LET IT BE RESOLVED THAT TRCA staff continue to work with MTO staff and municipal partners through the Regulatory Agency Advisory Group, through the Greenbelt Transportation Advisory Group, and through an established working group with TRCA, other affected conservation authorities, municipalities and provincial and federal ministries, to address concerns related to potential alignment changes to the technically preferred route to accommodate development and community interests, as well as concerns related to the preferred design alternatives, including concerns related but not limited to: watercourse and wildlife crossings and trail connections, flood and

erosion control, stormwater management, vegetation removals, natural heritage restoration and compensation, land acquisition and archaeology, and climate resiliency;

THAT the 32 Recommendations contained within this report and in Attachment 4 to this report be approved for review by MTO;

THAT MTO be requested to provide written responses to all TRCA letter comments and Board recommendations; hard copies of all technical studies in support of the technically preferred route and any proposed modifications for review and comment; hard copies of technical studies in support of preliminary and preferred design alternatives for review and comment; and hard copies of the draft EA and associated appendices for review and comment, in accordance with TRCA service delivery standards;

THAT the Ministry of Transportation; Ministry of the Environment, Conservation and Parks; Ministry of Natural Resources and Forestry, Ministry of Energy, Northern Development and Mines, the Independent Electricity System Operator; Regional Municipalities of Peel and York; Town of Caledon, City of Brampton and City of Vaughan; Credit Valley Conservation and Halton Conservation, be circulated a copy of this staff report;

AND FURTHER THAT TRCA staff report back to the Board of Directors and seek further direction once the preliminary design alternatives and technical appendices are provided to staff for review and comment.

RES.#A234/19 - AMENDMENT TO THE MAIN MOTION

Moved by: Rowena Santos
Seconded by: Michael Palleschi

THAT the following be inserted after the eighth paragraph of the main motion:

THAT recommendation 28 contained within this report and Attachment 4 be revised to read as follows: MTO recognize trail networks in the preliminary design alternative and ensure connectivity, parking, and access is maintained through efforts including but not limited to the design and construction of planned trail networks in the Focused Analysis Area of the Corridor including segments of the TRCA Regional Trail Strategy for the Greater Toronto Region, the Vaughan Super Trail, and trail networks identified in the Region of Peel's Active Together Master Plan and regional and local Official Plans.

THAT the following be inserted after the ninth paragraph of the main motion:

THAT MTO be requested to present to the TRCA Board of Directors at later stages of the study after detailed information requested by TRCA and its municipal partners has been shared and reviewed by TRCA and municipal staff

THE AMENDMENT WAS

CARRIED

RES.#A235/19 - AMENDMENT TO THE MAIN MOTION

Moved by: Michael Palleschi
Seconded by: Dipika Damerla

THAT tenth paragraph of the main motion be replaced with following:

THAT the Ministry of Transportation; Ministry of the Environment, Conservation and Parks; Ministry of Natural Resources and Forestry, Ministry of Energy, Northern Development and Mines, the Independent Electricity System Operator; Regional Municipalities of Peel and York; Town of Caledon, City of Brampton and City of Vaughan; Credit Valley Conservation and Halton Conservation; as well as Members of Provincial Parliament, representing electoral districts within the project area, be circulated a copy of this staff report;

THE AMENDMENT WAS

CARRIED

THE RESULTANT MOTION READS AS FOLLOWS:

WHEREAS on June 19, 2019 the Minister of Transportation resumed the GTA West Transportation Corridor Route Planning and Environmental Assessment Study (GTA West) and subsequently updated their comprehensive evaluation, identified MTO's technically preferred route, and sought public input;

WHEREAS in June 2019 the Ministry of Energy, Northern Development and Mines and the Independent Electricity System Operator initiated the Northwest GTA Transmission Corridor Identification Study to identify a transmission corridor in order to protect for future transmission infrastructure required to support increasing electricity demand;

WHEREAS the GTA West technically preferred route within TRCA's jurisdiction crosses multiple TRCA-owned properties, multiple significant natural heritage features, including valley and stream corridors, headwater streams, forests, wetlands, and will impact core features, habitats, species and wildlife connectivity; could create or exacerbate flood and erosion hazards; will increase chloride contamination in natural features; and reduces the ability of our natural areas to be resilient to the impacts of climate change;

WHEREAS on October 28, 2016 the TRCA Board of Directors in its Resolution #A171/16, as amended, recommended that the environmental assessment (EA) be completed and that the Advisory Panel take into account numerous sustainability, natural heritage and compensation considerations (see link to previous TRCA reports as provided in the body of this report);

WHEREAS TRCA has not yet been provided with detailed technical information that supports the Province's technically preferred route, or has not yet been engaged in any detailed technical discussions regarding the technically preferred route;

AND WHEREAS following provincial confirmation of the final preferred route, we are informed that MTO will develop preliminary design alternatives, seek public input prior to finalizing the preferred alternative for the highway design, and will then seek approval of the EA from the Minister of the Environment, Conservation and Parks;

THEREFORE, LET IT BE RESOLVED THAT TRCA staff continue to work with MTO staff and municipal partners through the Regulatory Agency Advisory Group, through the Greenbelt Transportation Advisory Group, and through an established working group with TRCA, other affected conservation authorities, municipalities and provincial and federal ministries, to address concerns related to potential alignment changes to the technically preferred route to accommodate development and community interests, as well as concerns related to the preferred design alternatives, including concerns related but not limited to: watercourse and wildlife crossings and trail connections, flood and erosion control, stormwater management, vegetation removals, natural heritage restoration and compensation, land acquisition and archaeology, and climate resiliency;

THAT the 32 Recommendations contained within this report and in Attachment 4 to this report be approved for review by MTO;

THAT recommendation 28 contained within this report and in Attachment 4 to this report be revised to read as follows: *MTO recognize trail networks in the preliminary design alternative and ensure connectivity, parking, and access is maintained through efforts including but not limited to the design and construction of planned trail networks in the Focused Analysis Area of the Corridor including segments of the TRCA Regional Trail Strategy for the Greater Toronto Region, the Vaughan Super Trail, and trail networks identified in the Region of Peel's Active Together Master Plan and regional and local Official Plans.*

THAT MTO be requested to provide written responses to all TRCA letter comments and Board recommendations; hard copies of all technical studies in support of the technically preferred route and any proposed modifications for review and comment; hard copies of technical studies in support of preliminary and preferred design alternatives for review and comment; and hard copies of the draft EA and associated appendices for review and comment, in accordance with TRCA service delivery standards;

THAT MTO be requested to present to the TRCA Board of Directors at later stages of the study after detailed information requested by TRCA and its municipal partners has been shared and reviewed by TRCA and municipal staff

THAT the Ministry of Transportation; Ministry of the Environment, Conservation and Parks; Ministry of Natural Resources and Forestry, Ministry of Energy, Northern Development and Mines, the Independent Electricity System Operator; Regional Municipalities of Peel and York; Town of Caledon, City of Brampton and City of Vaughan; Credit Valley Conservation and Halton Conservation; as well as Members of Provincial Parliament, representing electoral districts within the project area, be circulated a copy of this staff report;

AND FURTHER THAT TRCA staff report back to the Board of Directors and seek further direction once the preliminary design alternatives and technical appendices are provided to staff for review and comment.

CARRIED

BACKGROUND

In January 2007, the Ministry of Transportation (MTO) announced the commencement of the Individual Environmental Assessment (EA) Study for the GTA West Corridor. The purpose of the study is to examine long-term transportation problems and opportunities, while considering

alternatives to provide better linkages to Urban Growth Centres. The Terms of Reference was approved by the Ontario Minister of the Environment on March 4, 2008.

STAGE 1 OF THE INDIVIDUAL EA STUDY

Stage 1 of the EA process evaluated various transportation modes and their ability to address future transportation demands to the year 2031, an almost 25-year horizon from when the project was initiated. While there have been significant delays in the planning timeline for this project, the transportation demand study was not updated to extend this planning horizon. The Stage 1 Study concluded with a recommended solution of a multimodal Transportation Development Strategy to optimize the existing highway network, provide transit and rail improvements such as widening existing highways, and to construct a new transportation corridor, the GTA West Highway.

The Stage 1 Study identified the Preliminary Route Planning Study Corridor for the GTA West Highway as extending from Highway 400 in the east and terminating at the Highway 401/407 interchange to the west. Within TRCA's jurisdiction, the Study Corridor extends from Highway 400 in the City of Vaughan, west through the Town of Caledon and City of Brampton to approximately Heritage Road, crossing the Humber River and Etobicoke Creek watersheds. Preliminary analysis indicated that the new highway would consist of an alignment with a right-of-way width of 110 m for the highway, plus a 60 m right-of-way for the adjacent transitway including transit stations (Figure 1). This would consist of six lanes (three in each direction) between Highway 400 and the Highway 427 extension, and four lanes (two in each direction) between Highway 427 and the connection at Highway 401/407. A report that provided an update on the EA work completed to that date was brought to the TRCA Authority Board on June 24, 2011 ([Meeting #6/11, RES #A122/11](#), p.297). As a great deal of time has passed, TRCA is concerned that additional growth beyond 2031 projections could result in the need for highway expansions that will additionally impact the natural heritage system and TRCA-owned lands in the future. TRCA in discussion with some of our municipal partners want to ensure that the planning horizon to the year 2031 remains an appropriate planning horizon for the EA study. As a result, TRCA staff propose the following recommendations.

Recommendation:

1. **MTO be requested to confirm whether the transportation demand study completed to the year 2031 remains an appropriate planning horizon.**

STAGE 2 OF THE INDIVIDUAL EA STUDY

The Stage 2 Study of the EA commenced in early 2014 and built upon the recommendations from the Stage 1 Study. In 2015, MTO provided long and short lists of route alternatives. MTO presented an update to the TRCA Authority Board on April 24, 2015 and TRCA staff brought forward a report to the same meeting with an update on the Stage 2 work ([Meeting #4/15, RES #A64/15](#), p.148).

Suspension of the Study

In December 2015, MTO suspended work on the EA in order to ensure the project aligned with changes in government policy and emerging technologies. An advisory panel of industry experts was formed and tasked with conducting a strategic assessment of the alternatives to meet future transportation demand, and other transportation infrastructure needs for passenger and goods movement in the GTA West Corridor. On October 21, 2016, TRCA recommendations were presented to the panel, in coordination with Conservation Halton and Credit Valley Conservation. On October 28, 2016, TRCA staff presented to the Authority Board and brought

forward a report on the Recommendations to the GTA West Advisory Panel (Meeting #8/16, RES #A171/16, p.534).

In February 2018, after reviewing advice from the Panel, MTO announced they would not proceed with the new highway in the GTA West Corridor. However, to ensure demands for a growing region were met, MTO and the Independent Electricity System Operator (IESO), with support from the Ministry of Energy, jointly initiated the Northwest GTA Corridor Identification Study to identify a smaller corridor to be protected for future infrastructure needs including utilities, transportation and transit.

Resumption of the Study

In June 2019, MTO announced resumption of the GTA West Transportation Corridor Study and that it would no longer be participating in the Northwest GTA Corridor Identification Study. In turn, the Ministry of Energy, Northern Development and Mines (ENDM), and the IESO announced that they were initiating the Northwest GTA Transmission Corridor Identification Study, separate from MTO's GTA West Transportation Corridor Route Planning and Environmental Assessment Study.

Northwest GTA Transmission Corridor Identification Study

Currently, to support growing electricity demand in the western GTA and protect for future transmission infrastructure, the ENDM and IESO are leading the Northwest GTA Corridor Identification Study (Figure 2). In February 2020, TRCA staff participated in the first meeting of the Central/GTA Regional Electricity Network. Going forward, TRCA staff will seek to confirm if and how this study is being coordinated with the GTA West Highway that is being planned along a similar path. To assess the potential for cumulative impacts, staff recommend the studies consider each other's findings and be coordinated to the extent possible or as one initiative, similar to the Parkway Belt West Plan initiative in the 1970's.

Recommendation:

- 2. MTO and ENDM/IESO confirm efforts to coordinate their independent studies and ensure negative impacts are fully assessed and minimized wherever practicable.**

Technically Preferred Route

Following MTO's resumption of the GTA West Corridor study, a second round of Public Information Centres (PIC) was held in September and October 2019 at which time MTO presented the technically preferred route (Figure 3) based on high-level evaluations of the short-listed alignment alternatives. To date, TRCA has not received the required detailed technical reports to support these evaluations. The Town of Caledon, the City of Vaughan and the Regional Municipality of York have all provided a response through their councils, requesting future work and route modifications related to interchanges, development areas and community interests, prior to confirming the preferred route.

Preliminary Design Alternatives

In November 2019, TRCA staff attended a joint Municipal and Regulatory Agency Advisory Group meeting, as well as the Greenbelt Transportation Advisory Group meeting where it was identified that MTO plans to confirm the preferred route and "focused analysis area" in Spring 2020. Following this, MTO will commence development of the preliminary design alternatives, including field investigations and consultation with property owners impacted by the preferred route. A separate meeting is scheduled in January 2020 with TRCA, MTO and their consultants to provide a study update, review 2020 fieldwork plans and gather information on habitat mapping and Species at Risk.

Final Environmental Assessment

In late 2022, MTO plans to submit the final EA to the Minister of the Environment, Conservation and Parks for review. The Minister is responsible for making a decision on the EA based on the recommendations of Ministry of the Environment, Conservation and Parks (MECP) staff. If the approval is granted, it is typical that such approvals are made with conditions.

DETAILED DESIGN AND VOLUNTARY PROJECT REVIEW

If approved, the next stage in the project is to commence detailed design, whereby MTO is obligated to satisfy all Ministerial conditions, as well as to obtain all permits and approvals. As a Crown agency, MTO is exempt from obtaining a permit pursuant to TRCA's section 28 regulation under the *Conservation Authorities Act*. In such circumstances, TRCA offers proponents the option of submitting a Voluntary Project Review (VPR) application.

The VPR is submitted at the design stage and allows staff to complete a comprehensive review and provide an opinion as to whether the interests, objectives, and tests of TRCA's Ontario Regulation 166/06 will be satisfied. Fees are charged as per the TRCA Fee Schedule and the standard TRCA review process is followed. Once TRCA comments are satisfied, a VPR letter is issued confirming that our interests have been met.

Unless required to consult with TRCA as a Condition of Approval by MECP, MTO is under no obligation to seek further input at the detailed design stage. While the VPR process is used by other Crown agencies, such as Metrolinx, to date, it has not been pursued by MTO in other projects.

Recommendation:

- 3. MTO commit to receiving VPR signoff at the design stage as it relates to TRCA's regulatory and policy interests, as well as provincially delegated responsibilities.**
- 4. MTO and MECP work with TRCA to draft Conditions of Approval that reflect TRCA interests and concerns, and that these conditions be forwarded to the Minister for review and consideration at the appropriate time in the EA process.**

ANALYSIS

TRCA is a commenting agency under the *Environmental Assessment Act* and reviews and comments on EA's where the proposed project has the potential to affect our areas of interest, or our delegated responsibility of representing the provincial interest on natural hazards as identified under Section 3.1 of the Provincial Policy Statement 2014. TRCA staff reviewed mapping, as well as the draft Evaluation of the Short List of Route Alternatives (Draft, September 2019) for segments 3 to 9, located within TRCA's jurisdiction, which included the technically preferred route. This information was available on the [MTO website](#).

The following analysis focuses on specific areas of concern and key staff recommendations based on a high-level evaluation of the technically preferred alignment using only available TRCA mapping and data, as the MTO's detailed studies that support their technically preferred route were not provided. The following analysis should not be used in place of a comprehensive study and evaluation to be completed by MTO. It should be noted that staff concerns remain consistent with those provided in past reports and comment letters.

WATER MANAGEMENT

Flood Hazards and Stormwater Management

MTO's evaluation matrix identifies the introduction of approximately 397 hectares (ha) of impervious surface within TRCA's jurisdiction as a result of the new proposed highway, in addition to approximately 85 new watercourse crossings within the Etobicoke Creek and Humber River Watersheds for the technically preferred route. It is imperative that the preferred route not alter the natural hydrological and hydraulic regimes within each of the watersheds or increase the flood hazard at the proposed crossing locations. This is of particular importance to established and planned communities surrounding a new highway that may be at risk of flooding due to changes to water conveyance or flow regimes from the highway's impact to watercourses and wetlands. TRCA's 2015 Crossings Guideline for Valley and Stream Corridors document outlines the requirements for designing new or replacement crossing structures to prevent flood and erosion hazard impacts.

TRCA's 2012 Stormwater Management Criteria document lays out TRCA's stormwater management criteria for work within the TRCA jurisdiction, consistent with provincial and municipal requirements. The Humber River Hydrology and Etobicoke Creek Hydrology models were updated after 2012. It is important to note that the Humber River Hydrology Update only considered urban expansion as identified in the municipal Official Plans that were approved at the time and did not consider the land use change proposed by the GTA West Corridor project. Water quality, quantity, erosion and water balance controls will all need to be met. The Humber River Watershed Plan dictates that a Regional control assessment will be required for any urban expansion beyond approved Official Plans that were included in the recent Humber River Hydrology update.

Additional property needed to address and meet stormwater management criteria for the new highway as well as the future transitway, stations and any other associated hardened surfaces, should be identified in the EA. This identification of required land for green infrastructure will ensure the most effective level of stormwater treatment is achieved, prior to release to the Natural Heritage System (NHS). TRCA recommends if the EA is approved, and the project moves to detailed design, MTO acquire updated modeling from TRCA and come to TRCA for model verification through the VPR process. Historically, MTO has not requested TRCA verify these models, nor have they requested a VPR at the design stage. If the GTA West Highway is approved, in order to engage TRCA at the detailed design stage the Minister would need to make specific conditions as part of the approval process. Through such a process, TRCA would then be able to comment on changes to the drainage/flow regimes, be involved with mitigation to flood plain impacts, and ensure we receive accurate updated information and data that would inform decisions in municipal and development review applications.

Recommendations:

- 5. MTO consider the TRCA 2015 Crossings Guideline for Valley and Stream Corridors in designing new crossing structures in order to prevent flood and erosion hazard impacts.**
- 6. MTO clearly show on a figure in the EA, each watercourse and headwater drainage feature crossing, together with a corresponding table that shows proposed sizing at each crossing location that considers wildlife passage, fluvial geomorphic, and flood conveyance requirements, and any associated modeling, where necessary. Proposed crossing sizes presented in the EA should clearly reflect the sizing that will move forward to the design and construction stages.**
- 7. MTO undertake a comprehensive stormwater management strategy at the EA stage based on TRCA's 2012 Stormwater Management Criteria document that demonstrates**

how provincial and TRCA criteria for water quality, quantity, erosion and water balance will be met.

8. MTO contact TRCA for updated modeling and stormwater requirements at the detailed design stage and then update the modeling, based on the proposed highway design, according to TRCA standards.

Source Water Protection

The *Clean Water Act*, 2006 ensures communities protect their drinking water supplies through prevention by developing collaborative, watershed-based source protection plans that are locally driven and based on science. Within the Regional Municipality of Peel, the proposed alignments transect Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas as identified in the [Credit Valley - Toronto and Region - Central Lake Ontario Source Protection Plan \(CTC SPP\)](#). Within the Regional Municipality of York, the proposed alignments transect Highly Vulnerable Aquifers, Significant Groundwater Recharge Areas and a Wellhead Protection Area for quality and quantity (WHPA-Q). All alignments will have some level of impact to these resources. Further analysis will need to take place within the EA to determine the level of impact through consultation with each municipality.

Recommendations:

9. MTO consult with each municipality transected by the preferred route and design to confirm conformity with the CTC SPP.
10. MTO conform with Policy SAL-6 in the CTC SPP, in particular clause (d) which encourages the consideration of information in the Toronto and Region Assessment Report for the siting and prioritization of future assessments related to road salt application.
11. MTO work with the Ministry of the Environment, Conservation and Parks to ensure the implementation of Policy SAL-11 in the CTC SPP.

NATURAL HERITAGE SYSTEM

The GTA West Corridor project will have extensive and widespread impacts on the NHS, including significant loss in the number, form and function of natural features and species. There will be significant fragmentation of valleylands, conservation lands, and the few remaining natural corridors within TRCA's jurisdiction. To minimize these impacts a very thorough ecological study of the area must be completed, the results of which must direct the siting, design, and construction of the highway, including ecosystem compensation measures to help replace impacted natural features and function.

Wildlife Connectivity, Flora, Fauna and the Natural Heritage System

To highlight the extent of the anticipated major ecological impacts, TRCA staff completed a rapid assessment. A detailed ecological study by MTO is required to confirm impacts and identify mitigation, restoration and compensation requirements. The key findings include:

- Over 1000 ha of land identified as important for local wildlife movement, some of which is also important at a regional scale, will either be removed or intersected by the proposed highway. Of note is the section located to the east of Bramalea Road, through an area classified as important for regional wildlife movement.
- Approximately 85 watercourses will be impacted. Of these crossings, TRCA ranks 10 as "high priority" locations ecologically, as they are in deep valleys with relatively high quality existing or potential habitat, high regional connectivity, or high local connectivity. Of the remaining crossings, 58 are ranked as "medium priority" locations located in shallow valleys that have high quality existing or potential habitat, high regional connectivity, or high local connectivity.

- Over 110 occurrences (representing 10 different species) of federal and/or provincial Species at Risk have been found in the study area: These species are found in a variety of habitat types including meadow (e.g., Bobolink), forest (e.g., Eastern Wood-Pewee, Butternut), wetland (e.g., Snapping Turtle, Western Chorus Frog) and within specific watercourses.
- 35 different fauna species of local concern (with approximately 240 separate occurrences) have been found inhabiting the proposed study area.
- 74 different flora species of local concern (with approximately 275 separate occurrences) have been found inhabiting the proposed study area.
- Approximately 220 wetlands covering 130 ha, will be impacted.
- Approximately 680 ha of habitat representing 224 separate habitat patches (forest, wetland, meadows) will be directly removed or indirectly impacted. This includes 240 ha (representing 40 separate habitat patches) of high-quality habitat (based on TRCAs landscape analysis model assessing size, shape and surrounding land use) and over 300 ha (representing 206 separate habitat patches) of habitat deemed highly vulnerable to impacts of climate change.

An example of a high priority wildlife crossing location is the eastern end of segment 8-3 located north of Kirby Road between Kipling Avenue and Pine Valley Drive where there is a high probability of forest to forest wildlife movements. Crossing structures should not only accommodate wildlife movements between wetlands and valley systems for example, but also be considered for areas that are not along stream corridors.

Recommendations:

- 12. MTO complete seasonally appropriate field surveys along the preferred route to identify where and when wildlife passages are required and will be most effective, based on the type of species and migration patterns, to facilitate safe wildlife movement under or over the highway.**
- 13. MTO design habitat connectivity and wildlife passages for provincial and regional species of concern, including installing appropriate wildlife passages, fencing structures, and extensive habitat restoration.**
- 14. MTO consider the TRCA 2015 Crossings Guideline for Valley and Stream Corridors to inform the design of new crossing structures for wildlife movement and habitat connectivity.**

Core Features

MTO's Comparative Evaluation of Net Effects and Ranking of alternatives does not appear to consider the significance, sensitivities, or quality of all the natural heritage features within the alternative routes, which significantly diminishes the weighting of individual natural features. All natural heritage features should be evaluated using these criteria so that the review of alternatives considers natural heritage features equally and ensures overall impacts for each evaluation criterion is weighted appropriately.

- Some unevaluated wetlands may in fact be Provincially Significant Wetlands (PSW) but may not have been classified as such in the table. Once they have been evaluated, the significance of each natural feature can better inform the Route Evaluation.
- Woodlands should be assessed using standardized criteria for significance in such a way that they are compared on equal footing. Many of the unevaluated woodlands may in fact prove to be significant, particularly the larger features connected to valleys.
- There are several locations where natural features have not been identified. For example, there are extensive riverine wetlands located adjacent to Airport Road where segments 6-

1 and 6-2 are located. The proposed intersection 6-1 will remove a large proportion of these wetlands.

Once all natural heritage features have been assessed in terms of their significance, sensitivities and/or quality, they should be categorized such that the significant, most sensitive and highest quality features are considered "Core Features". These features are the core elements of the NHS, including ecologically significant groundwater recharge areas, should be protected and enhanced because they provide critical ecosystem functions.

While municipal Official Plans identify both natural heritage systems and many significant natural features, not all the features have been assessed. The GTA West study should reference these planning documents to assess the features that have not yet been evaluated. Once a comprehensive evaluation has been completed, slight shifts in alignment, such as shifting segment 4-1 to the north to avoid cutting through the "potentially significant woodlands" associated with watercourses, among others, should be considered. In addition, MTO's technically preferred route section 7-3 will connect the new highway to Highway 427. This route runs parallel to and on top of long reaches of permanent watercourse (approximately 2.1 km within the Robinson Creek Natural Heritage System), which will result in permanent impacts to the form and function of the NHS. Fragmentation of the valley corridor is anticipated as well as wetland removals including a mature deciduous swamp. As with the other highway segments, options to adjust the Highway 427 extension and interchange should be analyzed to first avoid impacts to sensitive habitat and minimize impacts to the NHS. MTO should respect the work done under the completed Highway 427 EA and detailed design processes to protect these features. If the EA is approved and a commitment to follow the TRCA VPR process is made, MTO would be committed to acquire updated data from TRCA and to ensuring TRCA standards are applied.

Recommendations:

- 15. MTO complete a comprehensive evaluation for the technically preferred alternative of the proposed highway, associated interchanges and future transit right-of-way and stations and use the information to consider hybrid alignments (shifts) that will avoid and minimize impacts to the natural heritage system, including watercourses and core features.**
- 16. MTO commit to mitigation measures at the EA stage, such as edge management plans and measures to ensure that the function of ecologically significant groundwater recharge areas are maintained, and then develop these measures further at the detailed design stage.**
- 17. MTO work with TRCA to develop and implement an environmental monitoring plan in the EA stage, and use the plan to inform the planning and design of wildlife crossing locations, as well as to address issues related to species sensitivities, such as noise, light, pollutants, invasive species, habitat and groundwater changes.**

Restoration and Compensation

MTO has examined a range of alignment alternatives and due to the magnitude of the proposed work, impacts to the NHS including habitat connections are unavoidable in some locations. Given the complexity of this work and the unavoidable impacts to significant and sensitive areas throughout the TRCA jurisdiction, it will be imperative that losses to core features and their functions, as well as losses to lands required for connectivity and buffers be restored. The loss of restorable lands as a result of the new highway and associated transitway should also be considered and compensated for, to the extent possible, with the intent to preserve and improve the ecological integrity of the area.

Recommendations:

- 18. MTO work with TRCA to determine an appropriate restoration and compensation plan in the EA that ensures a net benefit, depending on the ecological communities impacted, to ensure fragmentation is minimized, connections between sensitive ecological features remain open allowing for wildlife movement, and to ensure the NHS is protected and enhanced.**
- 19. MTO work with TRCA to identify locations in which restoration activities can take place either using the TRCA 2018 Guide for Determining Ecosystem Compensation or developing a compensation strategy similar to that adopted by Metrolinx for their expansion projects and applying an approximate value to future restoration and compensation efforts.**

Salt Application, Noise and Light Impacts

Salt application and salt spray as well as increased noise and light impacts should be considered when choosing the preferred route and preliminary design. Currently, the proposed corridor crosses numerous cold and cool water streams that provide habitat to sensitive aquatic species. These species cannot tolerate urban influences of salt and other pollutants that would enter the habitat via runoff. Stormwater management has not yet been proven as an effective mitigation tool for salt management. Natural heritage features are affected by salt spray, which can have profound effects on terrestrial systems and can penetrate to large forest blocks causing tree and shrub losses far removed from the road right-of-way. Conifer species are particularly prone to dieback due to salt spray. In terms of invasive species, such as phragmites, these often take root in rights-of-way and can cause long, linear disturbances to the NHS. Noise and light pollution can also cause adverse effects to forest and wetland species and must be considered in alternative selection, detailed design options and long-term maintenance.

Recommendation:

- 20. MTO consider in the EA the potential long-term impacts of salt loading to surface and groundwater features, salt spray to terrestrial habitats, the spread of invasive species along transportation corridors, and fragmentation of habitats and migration corridors.**

CLIMATE CHANGE

The MECP requires that all projects going through the EA process, including Individual EAs, consider impacts to and opportunities for climate change mitigation and adaptation, and consider the vulnerability of projects to climate change. The 2014 Provincial Policy Statement also requires that infrastructure projects consider impacts from climate change.

Impacts to Natural Features and Wildlife

The proposed routes cut through natural features and areas that are deemed to be highly vulnerable to climate change, which may exacerbate the impacts to these features (for example drying effects on vegetation and changes to hydrology). The proposed route also cuts through habitat patches used by sensitive species including terrestrial and aquatic Species at Risk Ontario (SARO) which are considered highly vulnerable to the impacts of climate change. Furthermore, habitat connectivity is becoming increasingly important, especially from a climate change perspective, where the loss of habitat will result in further isolation of species and limit species' movements.

Stormwater Management

Stormwater management strategies and crossing structures will need to demonstrate resilience to the effects of climate change. One methodology to evaluate impacts is to test the strategy against the rainfall estimates provided on the MTO Intensity Duration Frequency (IDF) Curve

website for the 2080s time period, as defined in the 2015 Ministry of Natural Resources and Forestry (MNR) document "Climate Change Projections for Ontario: An updated synthesis for policymakers and planners".

Green Infrastructure

In addition to the recommendations in this report, the EA should also include encouraging green infrastructure and strengthening stormwater management requirements; requiring consideration of energy conservation and efficiency, reduced greenhouse gas emissions and climate change adaptation (e.g. tree cover). Furthermore, the climate change section should also include information related to vehicular emissions and prescribed construction technologies and consider the potential impacts of climate change that may increase the risk associated with natural hazards (for example flooding due to severe weather).

Recommendations:

- 21. MTO evaluate climate change risks and impacts based on the transition of natural heritage lands to paved surfaces, together with the removal of trees and wetlands be included in the EA document to ensure impacts are minimized and clearly explained.**
- 22. MTO's stormwater management strategy and crossings be confirmed against the impacts of a changing climate.**
- 23. MTO investigate and incorporate green infrastructure into the design.**

TRCA-OWNED LANDS

Conservation Lands

TRCA lands will be impacted in multiple locations throughout this study corridor as a new highway will result in fragmentation as well as partial and complete losses to the land base. Impacts of the alternative options on TRCA-owned lands range from approximately 8 to 78 ha, depending on the various combinations of alternatives. While some highway segments will have either no impact or a nominal impact to TRCA-owned lands, of notable concern are the sections of the technically preferred route within the Highway 410 area and through the TRCA Nashville Conservation Reserve (NCR).

Recommendations:

- 24. MTO closely coordinate with TRCA throughout the planning and design stages to further review options to avoid and mitigate impacts to TRCA-owned lands.**
- 25. MTO and TRCA enter into negotiations regarding land base compensation once the preferred route has been finalized and MTO include future TRCA land acquisition costs within its costing analysis.**

Highway 410 Extension

Impacts based on the various alternatives for this segment of highway range from having no impact to significant impacts, such as with the technically preferred route. The routes that use the existing Highway 410 alignment have a similar overall impact (1.9 to 2.5 ha) to TRCA properties. The most significant impact is MTO technically preferred route 5-10 which involves construction of a new north-south connection and interchange which will impact two TRCA parcels affecting most of a parcel north of Mayfield Road and east of Heart Lake Road. According to the MTO Evaluation Table, the proposed Highway 410 interchange and extension will also result in the removal of 6.81 ha of wetland, 11.71 ha of potentially significant woodland, and will require 10 potential watercourse crossings.

TRCA and municipal staff have worked to protect many of these features through the Mayfield

West Master Environmental Servicing Plan (MESP) and draft plan review processes. While the technically preferred route appears to avoid the TRCA-owned central woodlot, a new interchange and extension will result in the removal of at least two PSW's, TRCA-owned lands, woodlots and the stream corridors that connect them as part of the Heart Lake Wetland Complex. The Heart Lake Wetland Complex has already been subject to significant impacts as a result of the Highway 410 extension, which has altered drainage patterns and permanently changed the hydrology of some of the wetlands. Impacts to features along those routes will need to be reviewed once further detail is provided.

Recommendation:

26. MTO work closely with TRCA, the City of Brampton, Town of Caledon and Regional Municipality of Peel and reconsider the interchange that would allow for the extension at Highway 410 to use existing Highway 10 infrastructure.

Nashville Conservation Reserve

The NCR is TRCA-owned land which extends from King Road south to Kleinberg and serves as an integral part of the TRCA's NHS. The NCR supports a wide variety of wildlife, conveys the federally designated Humber River (Canadian Heritage River), is an important migratory corridor, provides important recreational and natural resource for users and TRCA has identified future plans for this important greenspace in the Nashville Conservation Reserve Management Plan (2015).

MTO's technically preferred route section 8-3 through the southern section of the NCR, will fragment these lands resulting in impacts to almost 8 ha (based on TRCA data), approximately 58 ha of woodland and vegetation, approximately 10.3 ha of wetland habitat (based on the MTO evaluation table), and will pass through conservation lands at the narrowest portion of the tract. This route represents one of the alternatives with the smallest area of impact to TRCA-owned lands within the NCR.

In comparison, although alignment 8-1 through the northern section of the NCR, as recommended by the City of Vaughan in a letter to the Regional Municipality of York, dated November 25, 2019, would result in the most significant impact to TRCA-owned lands. This route could be selected but only if appropriate measures were applied to minimize negative impacts and achieve ecological and other benefits outside of this impacted area. This alignment would see approximately 55 ha of land impacted together with the removal of approximately 87.8 ha of forest, meadow and treed swamp and 11.7 ha of wetland (based on the MTO evaluation table). It should be noted that the Regional Municipality of York in their Council report of January 16, 2020, requested MTO to review alignments in the North Kleinburg-Nashville Secondary Plan Area and to reduce impacts to existing and approved community areas. It is recommended that TRCA, Vaughan, York and MTO staff continue to work together to find a solution to these concerns.

Recommendations:

- 27. MTO work with TRCA, the City of Vaughan and Regional Municipality of York to determine an alignment that will minimize and/or mitigate impacts through the NCR.**
- 28. MTO recognize trail networks in the preliminary design alternative and ensure connectivity, parking, and access is maintained through efforts including but not limited to the design and construction of planned trail networks in the Focused Analysis Area of the Corridor including segments of the TRCA Regional Trail Strategy for the Greater Toronto Region, the Vaughan Super Trail, and trail networks identified**

in the Region of Peel's Active Together Master Plan and regional and local Official Plans.

- 29. MTO ensure signage identifying the NCR and the Humber River's Canadian Heritage River System status be included in an area along the highway within the boundary of the NCR and in the vicinity of the Humber River.**

Archaeology

Once a preferred route has been chosen and development limits identified, TRCA archaeologists will need to complete archaeological investigations for any work on TRCA lands as per TRCA policy and at costs to be borne by MTO. Based on a review of TRCA information for the area, there is high potential for both Indigenous and Euro-Canadian archaeological sites and artifacts specifically in the NCR, and potentially in other TRCA-owned lands. Should sites or artifacts be encountered, further work will be needed to ensure the sites or artifacts are recognized and preserved in accordance with the objectives of the Etobicoke Creek and Humber River Watershed plans, the Humber River Canadian Heritage Rivers System designation, and the affected Indigenous communities. It should be noted that through the EA process, MTO is required to consult with Indigenous peoples and consider and incorporate the findings of those investigations.

Recommendation:

- 30. MTO closely coordinate with TRCA archaeology staff to complete investigations as per TRCA and provincial policy on TRCA-owned lands once a preferred route has been identified.**

LAND USE

Greenbelt Plan Area

MTO's technically preferred route appears to minimize impacts to the Protected Countryside designated area within the Greenbelt Plan.

Development

For several years, TRCA has worked closely with municipalities on development applications within the focused corridor width that was identified by MTO and the IESO in February 2018. We note that many of the municipal Secondary Plans, Block Plans and Official Plan Amendments in support of future development were approved based on the reduced Focused Analysis Area.

Through the planning process, TRCA has worked with the development industry and municipal staff to protect significant features and, through these municipal planning processes convey lands into public ownership. Significant time, effort and cost have been invested by TRCA and other parties to coordinate the approvals in conjunction with the reduced Focused Analysis Area Corridor Protection Area.

The GTA West Technically Preferred Route crosses future block plan areas, such as Block 62 West in the City of Vaughan, where preliminary work started several years ago, including staking of natural features. Other locations along the route are subject to Ontario Municipal Board (OMB) decisions or current Local Planning Appeal Tribunal (LPAT) hearings, set for 2020. In Block 66 West within the City of Vaughan, the technically preferred route could also potentially impact a site in which the valleylands were to be restored and dedicated to TRCA.

Recommendation:

- 31. MTO be requested to work with TRCA, municipalities, landowners and developers, and community and environmental organizations recognizing the shared concerns with particular alignments and interchanges, lands to be conveyed to TRCA through the development process, as well as TRCA and partner efforts in protecting natural features through the municipal planning process to establish a routing which respects the various concerns.**

Terminus Points at Highway 410, Highway 427 and Highway 400

The proposed highway includes several key connections to existing major highways 410, 427 and 400. It is unclear at this time whether extensions of these highway networks will be required in the future and how those extensions will impact features beyond areas examined through this study.

Recommendation:

- 32. MTO include projections for possible future extensions in the EA to ensure proposed terminus points at each of these locations to avoid or minimize impacts to TRCA properties, conservation lands and the NHS to the north and east.**

RELATIONSHIP TO BUILDING THE LIVING CITY, THE TRCA 2013-2022 STRATEGIC PLAN

This report supports the following set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 4 – Create complete communities that integrate nature and the built environment

Strategy 7 – Build partnerships and new business models

Strategy 8 – Gather and share the best sustainability knowledge

Strategy 12 – Facilitate a region-wide approach to sustainability

FINANCIAL DETAILS

- Should the province pursue approvals through the TRCA VPR process, fees for these services will be charged based on service delivery requirements that are consistent with the TRCA Fee Schedule. If the VPR process is not followed, TRCA will charge fees for all updated data and mapping.
- Monetary requirements for natural heritage compensation will be negotiated.
- Acquisition of TRCA-owned property will require negotiation of land-based monetary compensation.

DETAILS OF WORK TO BE DONE

- TRCA staff will continue to work with MTO staff through the Regulatory Agency Advisory Group, the Greenbelt Transportation Advisory Group and separate working groups.
- TRCA staff will report back to the TRCA Board of Directors once the preliminary design alternatives and technical appendices are provided to TRCA staff for review and comment and provide an update as to how TRCA recommendations have been addressed.
- Should the project be approved with a condition that requires the TRCA VPR process be implemented, TRCA staff will work with MTO through the detailed design and construction stages to ensure TRCA's regulatory, restoration and compensation concerns and objectives are addressed.

Report prepared by: Sharon Lingertat, extension 5717

Emails: sharon.lingertat@trca.ca

For Information contact: Beth Williston, extension 5217 or Sharon Lingertat, extension 5717

Emails: beth.williston@trca.ca, sharon.lingertat@trca.ca

Date: January 20, 2020

Attachments: 4

Attachment 1: Cross Section

Attachment 2: Focused Analysis Area

Attachment 3: Technically Preferred Route Roll Plan

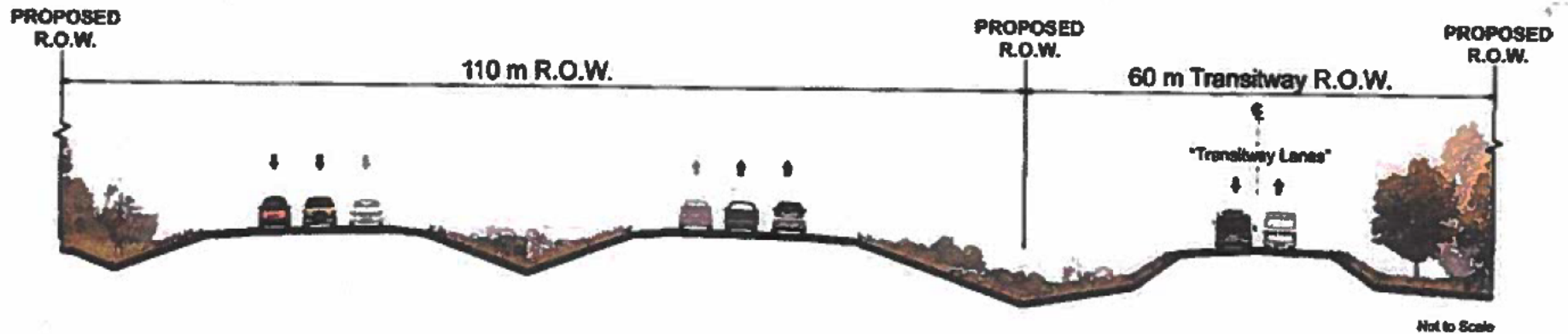
Attachment 4: Summary of Recommendations

Attachment 1: Proposed Cross Section

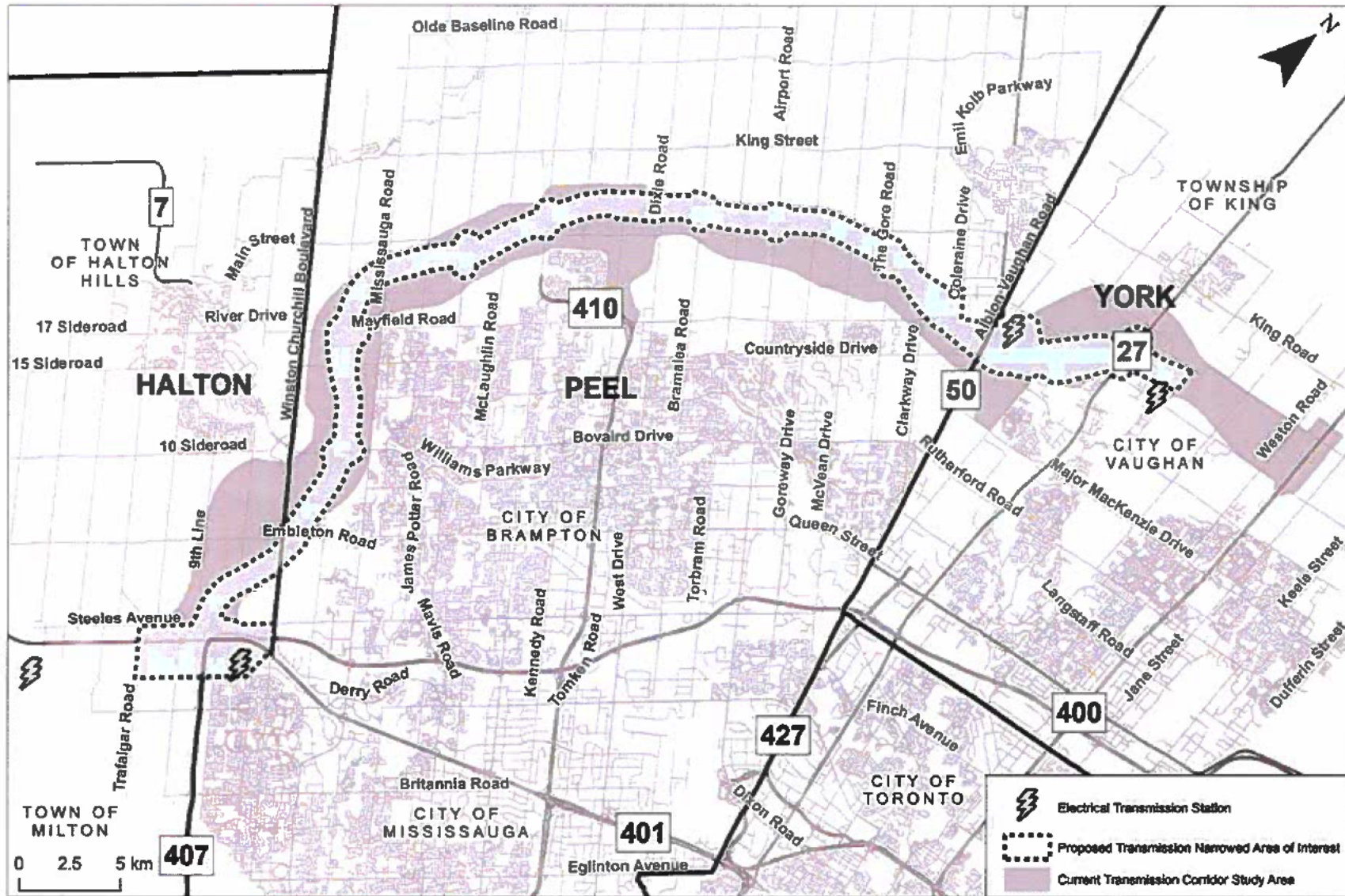


THE NEW MULTIMODAL CORRIDOR

- The multimodal transportation corridor will initially be designed as a 4- to 6-lane highway with a separate adjacent transitway
- The total proposed right-of-way (ROW) will be 170m



Map: Current Transmission Corridor Study Area and Proposed Transmission Narrowed Area of Interest



Summary of Recommendations

1. MTO be requested to confirm whether the transportation demand study completed to the year 2031 remains an appropriate planning horizon.
2. MTO and ENDM/IESO confirm efforts to coordinate their independent studies and ensure negative impacts are fully assessed and minimized wherever practicable.
3. MTO commit to receiving VPR signoff at the design stage as it relates to TRCA's regulatory and policy interests, as well as provincially delegated responsibilities.
4. MTO and MECP work with TRCA to draft Conditions of Approval that reflect TRCA interests and concerns, and that these conditions be forwarded to the Minister for review and consideration at the appropriate time in the EA process.
5. MTO consider the TRCA 2015 Crossings Guideline for Valley and Stream Corridors in designing new crossing structures in order to prevent flood and erosion hazard impacts.
6. MTO clearly show on a figure in the EA, each watercourse and headwater drainage feature crossing, together with a corresponding table that shows proposed sizing at each crossing location that considers wildlife passage, fluvial geomorphic, and flood conveyance requirements, and any associated modeling, where necessary. Proposed crossing sizes presented in the EA should clearly reflect the sizing that will move forward to the design and construction stages.
7. MTO undertake a comprehensive stormwater management strategy at the EA stage based on TRCA's 2012 Stormwater Management Criteria document that demonstrates how provincial and TRCA criteria for water quality, quantity, erosion and water balance will be met.
8. MTO contact TRCA for updated modeling and stormwater requirements at the detailed design stage and then update the modeling, based on the proposed highway design, according to TRCA standards.
9. MTO consult with each municipality transected by the preferred route and design to confirm conformity with the CTC SPP.
10. MTO conform with Policy SAL-6 in the CTC SPP, in particular clause (d) which encourages the consideration of information in the Toronto and Region Assessment Report for the siting and prioritization of future assessments related to road salt application.
11. MTO work with the Ministry of the Environment, Conservation and Parks to ensure the implementation of Policy SAL-11 in the CTC SPP.

Attachment 4

12. MTO complete seasonally appropriate field surveys along the preferred route to identify where and when wildlife passages are required and will be most effective, based on the type of species and migration patterns, to facilitate safe wildlife movement under or over the highway.
13. MTO design habitat connectivity and wildlife passages for provincial and regional species of concern, including installing appropriate wildlife passages, fencing structures, and extensive habitat restoration.
14. MTO consider the TRCA 2015 Crossings Guideline for Valley and Stream Corridors to inform the design of new crossing structures for wildlife movement and habitat connectivity.
15. MTO complete a comprehensive evaluation for the technically preferred alternative of the proposed highway, associated interchanges and future transit right-of-way and stations and use the information to consider hybrid alignments (shifts) that will avoid and minimize impacts to the natural heritage system, including watercourses and core features.
16. MTO commit to mitigation measures at the EA stage, such as edge management plans and measures to ensure that the function of ecologically significant groundwater recharge areas are maintained, and then develop these measures further at the detailed design stage.
17. MTO work with TRCA to develop and implement an environmental monitoring plan in the EA stage, and use the plan to inform the planning and design of wildlife crossing locations, as well as to address issues related to species sensitivities, such as noise, light, pollutants, invasive species, habitat and groundwater changes.
18. MTO work with TRCA to determine an appropriate restoration and compensation plan in the EA that ensures a net benefit, depending on the ecological communities impacted, to ensure fragmentation is minimized, connections between sensitive ecological features remain open allowing for wildlife movement, and to ensure the NHS is protected and enhanced.
19. MTO work with TRCA to identify locations in which restoration activities can take place either using the TRCA 2018 Guide for Determining Ecosystem Compensation or developing a compensation strategy similar to that adopted by Metrolinx for their expansion projects and applying an approximate value to future restoration and compensation efforts.
20. MTO consider in the EA the potential long-term impacts of salt loading to surface and groundwater features, salt spray to terrestrial habitats, the spread of invasive species along transportation corridors, and fragmentation of habitats and migration corridors.
21. MTO evaluate climate change risks and impacts based on the transition of natural heritage lands to paved surfaces, together with the removal of trees and wetlands be included in the EA document to ensure impacts are minimized and clearly explained.
22. MTO's stormwater management strategy and crossings be confirmed against the impacts of a changing climate.
23. MTO investigate and incorporate green infrastructure into the design.

Attachment 4

24. MTO closely coordinate with TRCA throughout the planning and design stages to further review options to avoid and mitigate impacts to TRCA-owned lands.
25. MTO and TRCA enter into negotiations regarding land base compensation once the preferred route has been finalized and MTO include future TRCA land acquisition costs within its costing analysis.
26. MTO work closely with TRCA, the City of Brampton, Town of Caledon and Regional Municipality of Peel and reconsider the interchange that would allow for the extension at Highway 410 to use existing Highway 10 infrastructure.
27. MTO work with TRCA, the City of Vaughan and Regional Municipality of York to determine an alignment that will minimize and/or mitigate impacts through the NCR.
28. MTO recognize trail networks in the preliminary design alternative and ensure connectivity, parking, and access is maintained through efforts including but not limited to the design and construction of planned trail networks in the Focused Analysis Area of the Corridor including segments of the TRCA Regional Trail Strategy for the Greater Toronto Region, the Vaughan Super Trail, and trail networks identified in the Region of Peel's Active Together Master Plan and regional and local Official Plans.
29. MTO ensure signage identifying the NCR and the Humber River's Canadian Heritage River System status be included in an area along the highway within the boundary of the NCR and in the vicinity of the Humber River.
30. MTO closely coordinate with TRCA archaeology staff to complete investigations as per TRCA and provincial policy on TRCA-owned lands once a preferred route has been identified.
31. MTO be requested to work with TRCA, municipalities, landowners and developers, and community and environmental organizations recognizing the shared concerns with particular alignments and interchanges, lands to be conveyed to TRCA through the development process, as well as TRCA and partner efforts in protecting natural features through the planning process to establish a routing which respects the various concerns.
32. MTO include projections for possible future extensions in the EA to ensure proposed terminus points at each of these locations to avoid or minimize impacts to TRCA properties, conservation lands and the NHS to the north and east.

July 3, 2020

CFN 62018

BY E-MAIL ONLY (Lukasz.Grobel@ontario.ca)

Lukasz Grobel
Senior Project Engineer
Ministry of Transportation
159 Sir William Hearst Avenue
Building D, 4th Floor
Toronto, ON M3M 0B7

Dear Mr. Grobel,

**Re: GTA West Transportation Corridor Route Planning and Environmental Assessment Study
Segments 7 and 8 (Approximately Highway 427 Interchange to East of Kipling Avenue)
Humber River Watershed
City of Vaughan; Regional Municipality of York**

Thank you for the opportunity to comment on the Ministry of Transportation's (MTO) revised route options within Segments 7 and 8 of the proposed Greater Toronto Area (GTA) West Transportation Corridor Route Planning and Environmental Assessment (EA) Study (GTA West). The Toronto and Region Conservation Authority (TRCA) is a key participant in the EA process within its watershed-based jurisdiction, as a public commenting body, resource management agency, service provider and landowner under the *Environmental Assessment Act*. Conservation Authorities also have a delegated responsibility of representing the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement (PPS).

PROJECT OVERVIEW

A report was prepared for the TRCA Board of Directors (Board) Meeting #11/19 on January 24, 2020, highlighting staff's concerns and recommendations based on available materials associated with MTO's GTA West study. Subsequent meetings were held with MTO, their consultants and other provincial and federal agencies on January 30, 2020 to further discuss the broader study corridor. A second meeting was held via conference call on May 21, 2020 to discuss Segment 7 generally located at the Highway 427 interchange, and Segment 8 located east of the Highway 427 interchange to east of Kipling Avenue in the City of Vaughan.

It is our understanding that in an effort to balance competing interests within Segment 8, that MTO is re-examining this segment of highway which has resulted in two new route alignments (S8-4 and S8-5) through the Nashville Conservation Reserve (NCR) and over the Humber River. Routes S8-4 and S8-5 are located just north of S8-3 which was previously shown as MTO's Technically Preferred Route. Segment 7 is also under review as the preferred alignment within Segment 8 will impact the Segment 7 connection to the Highway 427 interchange. We also understand that MTO is planning to publicly release the final Technically Preferred Route in the near future for the entire corridor, with a 'bubble' around Segments 7 and 8 noting that work is on-going at those locations.

PROJECT REVIEW – SEGMENTS 7 AND 8

MTO, through AECOM, has requested our comments on Segments 7 and 8, as well as feedback on potential mitigation measures within those segments. As such, TRCA staff received shapefiles, mainline profiles for S8-3, S8-4 and S8-5, a Section 7-8 figure, a copy of the Section 8 Agency Meeting presentation, Sections 7 and 8 mapping alternatives and Comparative Evaluation tables for Segments 7 and 8, on June 4, 2020.

Our review is based on a high-level evaluation of the three route alternatives using available TRCA mapping, TRCA data and the MTO supporting evaluation table, similar to our review of the broader study area which informed the January 24, 2020 Board report. A summary of our findings is provided below. Detailed comments are available in Appendix A of this letter.

Flood Plain, Valley and Watercourse Crossings

- All of the north-south routes within Segment 7, north of Major Mackenzie Drive, run parallel to and over long reaches of permanent watercourse, including approximately 2.1 km of Robinson Creek. Routes S7-13 and S7-14 offer a marginally better crossing location of the Humber River immediately east of the freeway-to-freeway interchange at Highway 427 because they are located upstream of the confluence. However, both options are located on meander bends associated with the watercourse, so the benefit is minor. Route S7-3 has the smallest impervious area footprint which will provide the least impact of the three options from a runoff quality/quantity perspective and to the downstream riverine system.
- Route S8-4 will impact approximately 500 m of the Humber River because this route is located otop of a large section of meandering stream and large flood plain. The Humber River crossing location of Route S8-5 is only slightly better; however, this alignment is located in the largest flood plain and will result in the largest crossing of the valley system. Route S8-3 appears to result in the fewest impacts to the watercourse crossings and valley system by crossing at the narrowest and straightest point of the Humber River. Finally, S8-3 has the smallest impervious area footprint which will provide the least impact of the three options from a runoff quality/quantity perspective and to the downstream riverine system.

Natural Heritage System (NHS)

- According to TRCA data, all three proposed routes have substantial ecological impacts, however Routes S8-4 and S8-5 appear to cover a larger road effect zone, and impact a greater area of natural cover including meadow and wetland habitat, and high-quality habitat patches. However, Routes S8-4 and S8-5 do have a slightly reduced impact on forest habitat when compared to S8-3. Routes S8-4 and S8-5 appear to impact a higher number of flora and fauna Species of Concern, and a higher number of Species at Risk.
- Route S8-3 has relatively lower overall impacts as it appears to cross the fewest number of watercourses, impact the smallest amount of natural cover directly and indirectly, impacts almost the same amount of forest habitat as other options, impacts a smaller amount of meadow and wetland habitat, and a smaller amount of high quality habitat patches. Route S8-3 also impacts the fewest TRCA regional flora and fauna Species of Concern and appears to impact the lowest number of Species at Risk.
- Regarding habitat connectivity and wildlife movement, all three proposed routes cut across areas which are important for regional connectivity. In terms of local connectivity between forests patches, Route S8-3 has the lowest amount of priority area impacted (440 ha) compared to S8-4 (461 ha) and S8-5 (452 ha). In terms of connectivity between forest and wetland patches, Route S8-4 seems to have the lowest amount of area impacted (137 ha) compared to S8-3 (153 ha) and 8-5 (139).
- Natural heritage impacts resulting from noise and night-time light pollution will be substantial for all three routes. However, given that Route S8-3 has a smaller road effect zone, smaller area of natural cover impacted, and fewer species of concern, it may have a smaller impact relative to the other two. However, it is critical to note that in addition to the area impacted, the changes in spectral composition, as well as duration and spatial pattern of lighting for instance, also effect the overall impacts.

TRCA Owned Land

- Routes S8-4 and S8-5 will both fragment a portion of the Nashville Conservation Reserve (NCR), leaving two smaller parcels and separating the parcels south of the corridor from the remainder of the conservation reserve. Both bisect an 81 ha parcel of land and smaller parcels associated with each respective alignment leaving smaller land holdings orphaned. Route S8-4 also has the potential to impact access to a rental residence located just north of the proposed alignment and parcels impacted by this route are also subject to an easement for a pipeline. Fragmentation of conservation lands for both of these options also has the potential to negatively impact tax exemptions.

- Route S8-3 will impact approximately 5 ha of the NCR. Of the options presented, this route crosses at the narrowest point of TRCA-owned lands in the area and will result in the least amount of fragmentation on the current landholdings for the NCR. However, this route has the potential to impact future potential conservation land connectivity.

Restoration and Active Uses Within the Nashville Conservation Reserve

- Routes S8-4 and S8-5 have greater impacts to restored areas within the NCR and will impact a larger conservation land base. These segments will also impact larger portions of the Humber Valley Heritage Trail system and affect previously funded and completed restoration projects.
- Segment S8-3 appears to have the least impact to the existing NHS, a moderate impact to interior forest, and no impact to completed restoration activities within the NCR. Although this alignment has the highest protection value (natural features in this area are in good condition and have a high level of ecological integrity), this is outweighed by the smaller total impact area of S8-3 versus the other routes. This alignment also appears to have the least impact on the existing and proposed trail network and, according to the MTO table, impacts to active uses can be mitigated with this alignment.

Overall, results indicate that all route options of the proposed highway will have substantial impacts on the NHS, valley systems and TRCA owned lands. This analysis showcases the relative extent of impacts associated with each option and suggests that **Route S7-3/S8-3 appears to have the fewest number of impacts from our perspective and is preferred.**

MITIGATION MEASURES

Notwithstanding the above, TRCA staff are cognizant of the fact that Route S7-3/S8-3 is in conflict with development plans for Block 62. As such, it is recommended that MTO advance the studies for these segments such that a true cost comparison is completed and factored into the preferred solution including, but not limited to, those associated with:

- Bridge sizes required to span significant valley systems and which take into consideration erosion scars, natural channel migration, habitat connectivity and wildlife movement needs, active toe erosion, undercutting, long-term stable top of bank, avoid cuts into vegetated slopes and accommodates existing active uses (trails, parking lots).
- Crossings of smaller watercourses and wetlands that address not only hydraulics and crossings of flood plains, but also channel movement, water balance and habitat connectivity requirements to ensure appropriate spans are constructed. This will avoid the need to harden natural features, allow for wildlife movement and ensure continued habitat connectivity.
- Restoration and compensation funds associated with losses to restorable habitat, land-based compensation and losses to previously funded/completed restoration projects.
- Land acquisition and associated archaeological investigation costs.
- Monitoring, design, construction and maintenance of wildlife crossings.
- Coordinating construction access points within the valley where existing or planned trails are proposed, and removal of construction access roads and re-establishment of disturbed slopes within valleys where active uses are not anticipated.
- Minimizing the area impacted by a new highway and avoiding significant natural features (retaining walls where appropriate).
- Modifying alignments to avoid permanent impacts to entire watercourse systems, such as Robinson Creek.

Regardless of the chosen alignment, significant mitigation and compensation efforts must be committed to in the EA and carried forward to the design and construction stages. A clear costing of the anticipated work to implement these types of mitigation measures should also be identified in the EA. A detailed list of suggested mitigation measures is provided in Appendix A.

NEXT STEPS

It is our understanding that MTO will be releasing the preferred alignment within the near future. Please note that TRCA staff has been directed to report back to the Board once the preferred route has been released and a response to our previous comments and recommendations has been provided.

Should you have any questions, would like to setup a meeting or require any additional information please contact me at extension 5717 or at sharon.lingertat@trca.ca. We look forward to further involvement as this study progresses.

Regards,

<Original signed by>

Sharon Lingertat, B.Sc. (Hons), MCIP, RPP
Senior Planner, Infrastructure Planning and Permits
Development and Engineering Services

Attached: Appendix A – TRCA Comments and Proponent Responses
Summary of Recommendations (from TRCA January 24, 2020 Board report)

BY E-MAIL

cc: MTO: Chris Barber, Senior Environmental Planner, Environmental Planning (Transportation)
Fahmi Choudhury, Senior Project Engineer, Route Planning and Transit Initiatives
MNR: Maria Jawaid, District Planner, Aurora District
MECP: Paul Heeney, Manager, Permissions and Compliance
OMAFRA: Anneleis Eckert, Rural Planner, Central-West Ontario, Land Use Policy and Stewardship
AECOM: Britta Patkowski, Ontario Department Manager, Planning and Permitting
WSP: Sandy Nairn, National Manager, Environmental Planning
TRCA: John MacKenzie, Chief Executive Officer
Beth Williston, Associate Director, Infrastructure Planning and Permits
Adam Miller, Senior Manager, Development Planning and Permits

APPENDIX A: TRCA COMMENTS AND PROPONENT RESPONSES

#	TRCA COMMENTS – SEGMENTS 7 AND 8 (July 3, 2020)	MTO/CONSULTANT RESPONSE (INSERT DATE)
Flood Plain, Valley and Location of Watercourse Crossings		
1	<p>All Segment 7 Routes Located Just North of Major MacKenzie Drive West</p> <p>a) All north-south alignments run parallel to and over long reaches of permanent watercourse, including approximately 2.1 km of Robinson Creek. Infrastructure that runs parallel to existing features (watercourses, valley systems) should be avoided. It is recommended that this interchange, particularly the north-south connection, be shifted to avoid permanent losses to entire sections of watercourse</p> <p>Routes S7-3/S8-3:</p> <p>b) Section 7-3: Starting from the southern terminus moving northwesterly, north of Major Mackenzie Drive, west of Huntington Road, the route follows branches of Robinson Creek for approximately 200 m and will require realignment of the tributaries. The flood plain is broad through this area and re-grading is anticipated. Near the intersection of Albion-Vaughan Road and Nashville Road, several crossings will be impacted through the freeway-to-freeway interchange. Moving easterly away from the interchange, the first crossing will be challenging as the crossing is located overtop of a confluence with large meanders. Total proposed impervious area: 60ha</p> <p>c) Section S8-3: This crossing of the Humber River, south of Kirby Road, east of Huntington Road, appears to be located in a narrower portion of valley, within a relatively straight section and over approximately 140 to 150 m top-width of flood plain. Engineered flood plain mapping is available at this location. Moving easterly, minor channel crossings appear to be somewhat perpendicular to crossings of the Humber River. The Highway 27 interchange is located over two confluences, over a short reach in the immediate area of the interchange. All reaches have either Engineered or estimated floodplain. East of Highway 27, the route runs parallel to a watercourse with estimated flood plain mapping, where most likely a long reach of the watercourse will require realignment. Moving easterly, a crossing of the Humber River east of Highway 27 is located in a narrow valley section with some meander associated with the watercourse. Moving easterly to the terminus, several minor drainage crossings are required. Total proposed impervious area: 46 ha.</p> <p>Routes S7-13/S8-4:</p> <p>d) Section S7-13: Comments related to the south portion of the freeway are the same as Section S7-3 above. Moving easterly from the freeway-to-freeway interchange, the first crossing west of Huntington Road is moderately better than S7-3, given that it is upstream of the confluence. However, the location of the highway is overtop of sharp meanders requiring either very large spans or channel realignments. Moving easterly, the route follows smaller features. Total proposed impervious area: 68 ha.</p> <p>e) Section S8-4: The first crossing east of Section 7, east of the Huntington Road and Kirby Road intersection is located over a wider section of flood plain, large meanders, will cover a large portion of the Humber River and valley and cross approximately 300 m top-width of flood plain. Grading impacts could threaten approximately 450 m of channel running parallel to route to the south and over 100 m of channel north of the roadway. Grading impacts to the valley could also be very significant. Moving easterly, there are similar issues at the Highway 27 interchange as noted for S8-3. Total proposed impervious area: 52 ha.</p> <p>Route S7-14/S8-5:</p> <p>f) Section S7-14: Comments related to the south portion of the freeway are the same as Section S7-3 above. Moving easterly from the freeway-to-freeway interchange, the first crossing east of Huntington Road will face similar challenges as S7-13. Differences are seen in S8-5 as noted below. Total proposed impervious area: 64 ha.</p> <p>g) Section S8-5: The first crossing east of Section 7, east of the Huntington Road and Kirby Road intersection is located over the widest section of flood plain for any of the proposed options (approximately 350 to 500 m top-width of flood plain), resulting in the need for either a very large span or significant impacts to</p>	

#	TRCA COMMENTS – SEGMENTS 7 AND 8 (July 3, 2020)	MTO/CONSULTANT RESPONSE (INSERT DATE)
	<p>the valley and flood plain. Similar to S8-4, the grading requirements for the roadway could threaten several sections of watercourse and impact a large area of flood plain and valley. Moving easterly, the route will experience the same issues at Highway 27 as previous routes. Total proposed impervious area: 50 ha.</p> <p>Sectional comparison</p> <ul style="list-style-type: none"> h) Section 7: All of the north-south Segment 7 alignments run parallel to and over long reaches of permanent watercourse, including approximately 2.1 km of Robinson Creek. Infrastructure that runs parallel to existing features (watercourses, valley systems) should be avoided. It is recommended that this interchange, particularly the north-south connections, be shifted to avoid permanent losses to entire sections of watercourse. i) For the Section 7 options, Routes S7-13 and S7-14 offer a marginally better crossing location of the tributaries immediately east of the freeway-to-freeway interchange by being located upstream of the confluence. However, both options are located on meander bends in the watercourse, so the benefit is minor. As Section S7-3 has the smallest impervious area footprint, this will provide the least impact of the three options from a runoff quality and quantity perspective and to the downstream riverine system. j) Section 8: For the Section 8 options, Route S8-3 provides the least impact to the watercourse crossings and valley impacts by crossing at the narrowest and straightest point. From a water recourse engineering perspective, S8-4 is least preferred, given the approximate 500 m of watercourse impacted by the highway location and large flood plain with meanders. S8-5 is only slightly better even though it is located in the largest flood plain and across the largest valley crossing. Finally, as Section S8-3 has the smallest impervious area footprint, this will provide the least impact of the three options from a runoff quality and quantity perspective and to the downstream riverine system. <p>Overall Preference: S7-3/S8-3: Given the information above, the marginal benefits provided east of the freeway-to-freeway interchange in Sections S7-13 and S7-14 are far outweighed by the Sections S8-4 and S8-5 impacts to the valley lands, required watercourse realignment impacts, water quality and runoff quantity impacts.</p>	
Natural Heritage System		
2	<p>This analysis is based on available TRCA data which has been collected at the watershed and regional scale. Some of the data on species points is older than 10 years and may not fully represent existing conditions. However, additional species level data is being collected by TRCA in 2020 and will be available for future work.</p> <p>Stream Crossings:</p> <ul style="list-style-type: none"> a) TRCA data shows that Route S8-3 appears to impact the fewest number of watercourses (although the MTO evaluation chart shows a similar number of watercourse crossings for routes S8-3 and S8-5). It is suggested that further analysis be completed, and that the EA clearly identify in a table and on mapping all watercourse crossings that will be impacted, including headwater drainage features. <p>Flora and Fauna:</p> <ul style="list-style-type: none"> b) Route S8-3 appears to impact the smallest amount of natural cover directly and indirectly (273 ha) compared to route 8-4 (320 ha) and 8-5 (308 ha). However, this includes impacts to about 150 ha of forest (versus 149 ha for S8-4 and 149 ha for S8-5), 83 ha of meadow (versus 126 ha for S8-4 and 118 ha for S8-5), 30 ha of wetlands (versus 33 ha for S8-4 and 31 ha for S8-5) and about 160 ha of high-quality habitat patches (versus 190 ha for S8-4 and 185 ha for S8-5). 	

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	<p>c) Route S8-3 appears to impact the fewest TRCA regional fauna Species of Concern (L1-L3) (123 observations including 26 different species) compared to S8-4 (172 observations including 32 different species) and S8-5 (155 observations including 29 different species). Likewise, flora Species of Concern impacted in the study area were also lowest for S8-3 (146 observations) versus 147 for both S8-4 and S8-5.</p> <p>d) Route S8-3 has the lowest number of climate vulnerable native vegetation, wetlands, and habitat patches in the study area compared to the other two options suggesting that this route may have lower levels of impact in terms of exacerbating climate change impacts on ecosystem in the study area.</p> <p>Habitat Connectivity:</p> <p>e) All three proposed routes intersect an area of the TRCA jurisdiction identified as important for regional connectivity of habitat and wildlife movement thereby compromising the long-term ecological health of the habitat patches and wildlife. However, in terms of local connectivity between forests patches route S8-3 has the lowest amount of priority area impacted (440 ha) compared to S8-4 (461 ha) and S8-5 (452 ha).</p> <p>f) In terms of connectivity between forest and wetland patches Route S8-4 seems to have lowest amount of area impacted (137 ha) compared to S8-3 (153 ha) and S8-5 (139).</p> <p>Species at Risk:</p> <p>g) Route S8-3 has the lowest number of Species at Risk within the study area (24 SAR data points including 4 different species) compared to S8-4 (51 SAR data points; 6 species) and S8-5 (45 SAR data points; 5 species).</p> <p>h) All the proposed routes cross Redside Dace habitat, a provincially/federally listed species-at-risk, in the Humber River twice. Redside Dace populations and habitat are found within the area of the proposed routes. Detailed, on-the-ground, habitat assessments are recommended to identify refined Redside Dace habitat. In addition, Rapids Clubtail, a provincially listed species-at-risk, populations and habitat are also found within the area of all route options. The exact location of the species within the river could not be determined. For this species, the furthest downstream route (route S8-3) is suggested to minimize water quality impacts.</p> <p>Overall Preference: S8-3: Route S8-3 has a lower overall impact (according to TRCA data) as it appears to cross the fewest number of watercourses, appears to impact the smallest amount of natural cover directly and indirectly, impacts almost the same amount of forest habitat as other options, impacts a smaller amount of meadow and wetland habitat and a smaller amount of high quality habitat patches. S8-3 also impacts the fewest TRCA regional flora and fauna Species of Concern and appears to impact the lowest number of Species at Risk. Connectivity between forest to forest and forest to wetland will be important for all 3 routes.</p>	
TRCA Owned Lands		
3	<p>Alternative S8-3 (Estimated 5 ha impacted) – Nashville Conservation Reserve:</p> <p>a) This route affects the corners of two parcels where the southeast corner of one parcel touches the northwest corner of the other. This will impact approximately 5 ha of the NCR. Of the options presented, this route crosses at the narrowest point of TRCA-owned lands in the area and represents the least fragmentation impact on the current landholdings for the NCR. However, this route has the potential to impact future potential conservation land connectivity.</p> <p>Alternative Route S7-13/S8-4 (Estimated 34 ha impacted) - Nashville Conservation Reserve:</p> <p>b) Segment S8-4 fragments a portion of the conservation reserve, leaving two smaller parcels and separating the parcels south of the corridor from the remainder of the conservation reserve. It bisects a large parcel (81 ha) in the NCR, impacting 32 ha. The remaining northern parcel would be approximately</p>	

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	<p>32 ha, and the remaining southern parcel would be 17 ha. In addition, this route crosses the corners of two parcels where Kirby Road and Huntington Road connect, impacting an additional 1.5 ha of the NCR.</p> <ul style="list-style-type: none"> c) Fragmentation of this land has the potential to negatively impact tax exemptions. d) A rental residence is located just north of the proposed alignment and this route has the potential to impact access to the residence. e) The parcels impacted by this route are subject to an easement for a pipeline. <p>Alternative Route S7-14/S8-5 (Estimated 35 ha impacted) - Nashville Conservation Reserve:</p> <ul style="list-style-type: none"> f) Like S8-4, S8-5 bisects parcels in the Nashville Resource Management area. This route is slightly south of S8-4 and, although it leaves more of the 81-ha parcel intact, it impacts smaller parcels further south. Route S8-5 affects 22 ha of the 81-ha parcel and leaves 55 ha intact and 4 ha on the southeast corner orphaned. In addition, a 3.7 ha TRCA-owned parcel just south is impacted, affecting 2.4 ha and leaving an orphaned 1.3 ha. South of the unopened portion of Kirby Road, 11 ha of a 32 ha parcel is impacted by this route, removing the western third of this parcel and leaving 0.5 ha on the northwest corner orphaned. g) Fragmentation of this land has the potential to negatively impact tax exemptions. <p>Segments S8-3, S8-4 and S8-5 – Kirby Lands:</p> <ul style="list-style-type: none"> h) All three of the proposed routes have the same impact to the Kirby lands. i) Access to a TRCA-owned parcel at the south side of the future interchange at Kirby Road and Highway 27 has the potential to be impacted. j) A TRCA-owned parcel north of Kirby Road and West of Kipling Avenue (north of Orico Court) will be impacted along the northern boundary of Concession 8. The transportation corridor through this area could also impact conservation land connectivity opportunities if not mitigated. <p>Overall Preference: S8-3: From a property ownership perspective, Route S8-3 is the preferred option because it has the least impact on the lands that currently make up the NCR; however, this route does have the potential to impact future land acquisitions along the Humber River that surround the NCR, which are essential to the overall ecological health and integrity of the Humber River watershed. For this reason, it is requested that future connectivity of conservation lands be taken into consideration when planning this route.</p>	
4	The MTO Comparative Evaluation table does not appear to consider impacts to TRCA owned lands. While other land holdings such as residential and commercial have been identified, conservation lands should also be considered within the matrix. Please update.	
Restoration and Active Uses Within the Nashville Conservation Reserve		
5	<p>Alternative S8-3:</p> <ul style="list-style-type: none"> a) This alignment appears to have the least impact to the existing NHS, moderate impacts to interior forest, and no impact to previous restoration activities. b) TRCA is actively planning and building an active transportation trail along the Kirby Road allowance with the goal of connecting Highway 27 to Huntington Road. In addition, the end of Kirby Road currently operates as a parking area and secondary trail entrance to the NCR. The trail is identified in the NCR Management Plan, Vaughan's Pedestrian and Bicycle Master Plan and York Region's Pedestrian and Cycling Master Plan. Staff are concerned that an important east-west active-transportation trail along Kirby Road will be blocked during construction and could permanently be closed as a result of the highway project. However, as noted in the MTO evaluation table (2.2.5) Route S8-3 will impact only a small portion of the Humber Valley Heritage Trail and impacts can be mitigated. 	

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	<p>Alternative S8-4:</p> <ul style="list-style-type: none"> c) This alignment has the most impact to interior forest and NHS and will impact 12.8 ha of completed restoration. d) As noted in the MTO evaluation table (2.2.5) this route will cross the west trailhead access and a northerly portion of the Humber Valley Heritage Trail and may reduce the natural heritage/urban wilderness values associated with the trail. <p>Alternative S8-5:</p> <ul style="list-style-type: none"> e) This alignment has the least impact to interior forest and second lowest impact to the existing NHS. It also has the highest impact to completed restoration activities within the NCR (18.54 ha completed restoration). f) As noted in the evaluation table (2.2.5) this route will cross the central portion of the Humber Valley Heritage Trail and may reduce the natural heritage/urban wilderness values of that portion of the trail. <p>General Restoration Comment:</p> <ul style="list-style-type: none"> g) It should also be noted that many of the completed restoration projects, including trail construction within the NCR, were funded through compensation agreements with external partners associated with the pipeline construction and through Memorandums of Understanding as negotiated through development agreements. This includes millions of dollars in funding to TRCA for enhancement, restoration, planting and rehabilitation projects within this area. <p>Overall Preference: S8-3: This alignment appears to have the least impact to the existing NHS, a moderate impact to interior forest, and no impact to previous restoration activities within the NCR. Route S8-3 also has the highest protection value meaning that natural features in this area are in good condition and have a high level of ecological integrity. This however is outweighed by the smaller total impact area versus the other routes. This alignment also seems to have the least impact to the trail network, and it is our understanding that potential impacts can be mitigated within this alignment</p>	
Geotechnical General Comments		
6	<ul style="list-style-type: none"> a) A number of significant watercourses and valleys run along the proposed routes. Crossings with wide spans will be required through significant valleys. Additionally, in many locations, watercourses appear to meander towards the toe of the valley walls, where the risk of toe erosion and undercutting exist which can result in future slope hazards. Abutments and piers cannot be left vulnerable to erosion hazards and slope instability. Additionally, crossing locations should be selected such that the risk of watercourse meandering is reduced. b) At the crossings (particularly the main Humber River), please have a geotechnical engineer conduct a slope stability review to select a crossing point with the least chance of future slope hazards. The ideal location for the crossing is where the slope is 2H:1V to 3H:1V (based on the general area geology and where the watercourse is located 15 m away from the toe of slope). This analysis should be conducted to inform the selection of the crossing location within the corridor at a preliminary stage. Once the approximate crossing location is determined, the stability assessment will need to be refined by further field investigations and detailed assessments at the later stages of the design. c) The proposed crossings for various options are very wide. Piers will need to be built in the valley, and access to the construction area can be challenging resulting in alterations to the entire valley to facilitate the temporary construction access, pads and other provisions for the construction of a crossing. Restoration of the valley could also be problematic post-construction. These challenges should be considered within the constructability criteria to evaluate various options. It is unknown if such constraints have been considered for the location of the crossings. Please clarify. It is also strongly recommended that 	

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	<p>a geotechnical engineer demonstrate on a site plan, including longitudinal profile and cross-sections, how such constraints have been taken into account to select the preferred option. Input from a construction engineer is also recommended to inform the decision.</p> <p>d) Depending on the condition of the crossing area, some channel works may be needed. This should be identified at this stage, as the need for the channel work to provide toe erosion protection for future crossings may result in significant alterations to the slope, which will be a constraint in the selection of the preferred option. It is unknown based on the submitted materials if this criterion has been considered for these options.</p>	
7	<p>TRCA staff previously noted concerns regarding cross-section S8-5 which shows a proposed cut in profile from Huntington Road east towards the Humber River valley as the cross-section for S8-4 seems to preserve the slope and does not require a cut into the valley. It is recommended that proposed designs avoid impacts to vegetated slopes to the extent possible to avoid slope failure and preserve the existing NHS.</p>	
Potential Mitigation Measures		
8	<p>The following are potential mitigation measures that TRCA staff are recommending based on our experience with these types of projects within or near large valley systems and sensitive habitats. Please note that this list is not all-inclusive as additional mitigation measures will be required for other segments of highway. This list may also change based on the final preferred route.</p> <p>Valley and Streams:</p> <p>a) It will be imperative that the preferred route not alter the natural hydrological and hydraulic regimes within each of the watersheds or increase risks to flood and erosion hazards at any of the crossing locations. It is recommended that structures be provided that:</p> <ul style="list-style-type: none"> • Span significant valley systems taking into consideration erosion scars which may be present, natural channel migration, active toe erosion, undercutting and other slope hazards. • Avoid the need for fill within the flood plain. • Provide required access for active uses (trails, parking lots, etc.) where needed. • Consider provincially listed aquatic species at risk. • Avoid impacts to vegetated slopes (designed such that footings and approaches are setback from slopes to avoid the need for cuts, disturbance to valley slopes and the need to harden naturalized areas, including channels). • Avoid losses to stream length as a result of enclosures or realignments. • Consider TRCA's 2015 Crossings Guideline for Valley and Stream Corridors to ensure crossings are designed to prevent further risks associated with flood and erosion hazards, and ensure natural heritage and ecological impacts are addressed at the crossings. <p>b) Technical justification (including but not limited to geomorphology, erosion analysis, hydraulic modeling, vegetation impacts, wildlife movement, eco-passages, corridor connectivity, groundwater impacts, geotechnical) should be provided within the EA to justify sizing of all new culverts and bridges. Crossings will need to be designed based on field survey data, evaluated based on a comprehensive list of criterion (including but not limited to the locations of watercourses and topography) and will need to maintain wildlife connections through the NHS. It is anticipated that crossings will be recommended within the EA that not only provide dual functions to convey flows and allow for wildlife passage, but will also identify areas where wildlife passage alone may be required in key migration areas. The EA should also identify preliminary costing for all structures, and acknowledge that budget estimates developed from the EA will be very preliminary, potentially subject to significant change and that further detail regarding migration hot spots, watercourse crossings and accommodation for wetlands is required.</p>	

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	<p>c) Access roads into valleys to construct piers for example should choose the least intrusive path and avoid impacts to well vegetated slopes which often result in future erosion issues. All accesses should be removed and restored once construction is completed. Valley access points should also be coordinated with the existing and planned trail network. Costs involved with construction access routes and valley restoration should be included.</p> <p>Connectivity and Impacts to the NHS</p> <p>d) It will be important to design habitat connectivity and wildlife passages for provincially listed and TRCA’s regional species of concern, including installing appropriate wildlife passages, fencing and on-going maintenance. Several crossings locations were identified that intersect priority areas for habitat connectivity within TRCA’s jurisdiction. These crossing locations should be identified at the early planning and design stages to identify wildlife crossing requirements and to allow for incorporation of species sensitivities such as noise and light pollutants, invasive species, habitat and groundwater changes. It is also anticipated that those key migration areas will be identified, though field monitoring for instance, to inform appropriate wildlife crossing locations.</p> <p>e) Minimizing the amount of area affected by the road is critical to natural heritage form and functions. Several sensitive habitats and species will be impacted within the road effect zone, unless appropriate mitigation and/or ecological compensation measures are put in place. It is recommended that impacts as a result of grading for instance are minimized, particularly in sensitive habitats (suggest the use of walls where appropriate).</p> <p>f) Feature based water balance will be required where wetlands for instance are impacted as a result of hydrological connections due to highway construction. Equalization culverts should also be considered where the highway may fragment a feature.</p> <p>g) Comprehensive erosion and sediment control plans will be required, including phasing of ESC’s and implementing a multi-barrier approach as outlined in our Erosion and Sediment Control Guideline for Urban Construction</p> <p>h) Shifting highway alignments to avoid permanent impacts to entire watercourse systems, such as Robinson Creek.</p> <p>i) Piers should not be located within watercourses or wetlands.</p> <p>j) Consideration will need to be given to minimizing/mitigating ecological impacts associated with noise and lighting. This is particularly relevant in areas where the road crosses the NHS or is adjacent to natural features and/or the NHS. Please consider design elements such as strategic placement away from natural features, reduced intensity near natural features and ensuring that lighting for instance is directed away from natural features where possible.</p> <p>Restoration and Compensation</p> <p>k) Compensation in addition to restoration efforts should be committed to within the EA to ensure the long-term health of the NHS and watershed. Ideally compensation efforts for loss of natural features should be directed to another site within the same watershed to balance the losses. Alternately, cash-in-lieu for natural feature losses can be identified using TRCA’s Guideline for Determining Ecosystem Compensation (June 2018) and an agreement arranged with TRCA restoration staff to implement restoration within TRCA’s jurisdiction. These costs should be factored into the evaluation table.</p> <p>l) Should a route other than S8-3 be chosen, previously funded restoration efforts within the NCR will be lost. As such it is expected that those losses will be directly compensated to TRCA. These costs should also be factored into the evaluation table.</p> <p>m) The EA should commit to edge management plantings.</p> <p>n) Should a proposed alignment impact existing trail networks, future designs for a crossing of the Humber River through the NCR will need to include provisions for multi-use recreational trail connectivity, parking and maintenance vehicles. Active uses may also need to be accommodated within flatter sections of the future highway. Design considerations should be noted in the EA.</p>	

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	<p>TRCA Owned Property</p> <ul style="list-style-type: none"> o) There is the potential that access to a TRCA-owned parcel on the south side of the future interchange at Kirby Road and Highway 27, as well as access to a rental residence could be negatively impacted. It is requested that access to properties be taken into consideration when planning the route and that a strategy be proposed to mitigate those impacts. p) For all routes, it is requested that connectivity of conservation lands, both for existing conservation land holdings and for future connectivity opportunities, be considered and that the cumulative benefit of conservation land contiguity be taken into consideration. q) Negotiations will need to take place regarding land base compensation once a preferred route has been finalized. Future land acquisition costs should be included in the costing analysis. <p>A copy of the 32 recommendations identified in the January 24, 2020 Board report is also included as an attachment for your reference as additional mitigation measures were noted in that report for other various segments which could also apply to Segments 7 and 8.</p>	

June 8, 2020

BY EMAIL ONLY (kirby.dier@ontario.ca)

Ms. Kirby Dier
Network and Microgrid Policy
Ministry of Energy, Northern Development and Mines
77 Grenville St, 6th Floor
Toronto, ON M7A 2C1

Dear Ms. Dier:

Re: Proposal to identify and protect a corridor of land for future electricity infrastructure in the Greater Toronto Area (ERO #019-1503)

Thank you for the opportunity to comment on the Ministry of Energy, Northern Development and Mines' (ENDM) Environmental Registry (ERO) posting on the proposal to identify and protect a corridor of land for future electricity infrastructure in the Greater Toronto Area (GTA), in support of future growth in Halton, Peel and York regions.

The Toronto and Region Conservation Authority (TRCA) conducts itself in accordance with the objects, powers, roles and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting activities, as follows:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement;
- A regulatory authority under section 28 of the *Conservation Authorities Act*;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, TRCA works in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources.

Government Proposal

The Independent Electricity Systems Operator (IESO), Ontario's electricity planner, has identified a long-term need for electricity transmission infrastructure in Halton, Peel and York regions, but the technical scope of transmission infrastructure required, and the timing of its need may not be certain for many years. In June 2019, ENDM and the IESO initiated the Northwest GTA Transmission Corridor Identification Study (the study) to identify an appropriate corridor of land for use by future linear transmission infrastructure when the need arises. TRCA understands that the government is currently seeking feedback on the proposed narrowed study area, shown in the Proposed Transmission Narrowed Area of Interest figure included in the ERO posting, as well as input on the guiding principles the government will consider in conducting the study. The outcome of the study will be a recommendation on land to be preserved for future transmission infrastructure and protected from development for other purposes.

ENDM has noted that any future electricity transmission development in the study area would be subject to *Environmental Assessment Act* requirements and other applicable regulatory approvals, including through the Ontario Energy Board.

General Comments

TRCA understands that the currently proposed narrowed area of interest for the transmission corridor largely corresponds to the Ministry of Transportation's (MTO) 2019 Focused Area Analysis for the GTA West Highway Environmental Assessment (EA). TRCA is a commenting agency involved in the review of the GTA West Highway EA. At this time, TRCA understands that the exact alignment of the highway has not been confirmed, nor is it clear where the electricity transmission corridor will be located relative to the highway (north of or south of the highway). Via a presentation to TRCA's Board of Directors on January 24, 2020, and through multi-agency working groups for the EA, MTO indicated that they anticipated sharing the preferred multimodal transportation corridor route publicly before the end of Spring 2020, with the exception of Sections 7 and 8 where further work is required to confirm the route in those areas.

A resolution from TRCA's Board of Directors meeting of January 24, 2020, was that MTO and ENDM/IESO confirm efforts to coordinate their independent studies and ensure negative impacts are fully assessed and minimized wherever practicable. Staff's report and recommendations to the Board recognized the substantial environmental impact the infrastructure projects can have, often crossing or running parallel to natural systems, requiring vast areas of natural feature removals, major grade and drainage alterations, and installation of hardened surfaces or underground components affecting groundwater and surface water receptors, e.g., watercourses, wetlands, woodlands.

The transmission corridor study area traverses TRCA's jurisdiction through the Etobicoke Creek, Mimico Creek and Humber River watersheds, including several hectares of TRCA-owned lands known as the Nashville Conservation Reserve. TRCA concerns are related to how the two infrastructure corridors would affect:

- flood and erosion hazards;
- watercourse and wildlife crossings;
- stormwater management;
- natural feature removals and corresponding ecosystem compensation;
- land use and/or acquisition of TRCA-owned lands as it may affect natural heritage and archaeological resources and recreation master planning, including trails and trail connections, and ultimately,
- climate resilience.

The Provincial Policy Statement's section 1.6 requires infrastructure and public service facilities to be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs. It is TRCA's assertion that the transmission corridor study's attention to many of the above noted concerns will help demonstrate how such preparation can be addressed.

Detailed comments

TRCA's comments are organized according to the five guiding study principles and the questions posed in the ERO posting. We understand that provincial legislation, policies and technical planning documents have informed the principles and that "balance among the principles will be required in implementing the study."

Principle 1: Co-locate with other linear infrastructure

Corridor routing should maximize the use of existing linear infrastructure corridors wherever feasible (e.g., GTA West Transportation Corridor, 400 series highways, other infrastructure corridors).

TRCA understands ENDM is recognizing the opportunity to co-locate a transmission corridor with the Ministry of Transportation's (MTO) proposed GTA West Transportation Corridor, and so are proposing to align the timing of the study with milestones related to MTO's Environmental Assessment. TRCA supports the co-location of linear infrastructure in accordance with the Provincial Policy Statement (PPS), the Growth Plan and the TRCA's own policy document, The Living City Policies. By avoiding fragmenting large swaths of land in multiple locations, co-location of linear infrastructure can help minimize impacts to natural hazards, natural features and water resources.

Also aligned with provincial policies, is The Living City Policies' recommendation for coordinated processes (e.g., *Planning Act* and *Environmental Assessment Act*) to facilitate strategic infrastructure placement and design that avoids cumulative impacts and seeks opportunities for improvements to natural systems. In addition, the Growth Plan and the recently updated PPS both contain policies for greater integration of infrastructure planning with development planning with an aim to limiting land consumption and resource use.

While we understand that the transmission study is independent of the GTA West Highway Environmental Assessment, these studies should be coordinated to optimize opportunities for avoiding or reducing risk associated with natural hazards, for minimizing, mitigating and compensating for impacts to the natural heritage system, and for seeking opportunities for remediation and restoration enhancements.

Principle 2: Plan for the most cost-effective outcome

Corridor routing should protect least cost routing where feasible, which could include identifying the shortest geographic route and reducing crossings of other infrastructure such as highways, railways, pipelines and other transmission lines.

TRCA staff are supportive of corridor route planning that minimizes costs, contingent on all of the study principles being weighted fairly so that major environmental impacts will not be accepted in favour of least-cost alignments. We note that the principle's examples of identifying the shortest geographic route and reducing crossings of other infrastructure may be ambitious given the need for connections at specific locations and that realignments may be required to avoid existing infrastructure.

TRCA recognizes the need to minimize costs in the siting and alignment of the transmission corridor, but the assessment should also take a long-term view regarding the later stages of planning, design and construction of the electricity infrastructure. A short, direct route alignment may result in having to cross through difficult to construct areas due to natural hazards or groundwater conditions. The long-term costs of maintenance or repair from damage due to erosion or groundwater issues, for example, need to be considered, as well as the potential for exacerbation of these issues due to the surrounding urbanizing landscape and climate change. In this regard, other least-cost routing measures, which would also align with Principle 3, would be to minimize the number of crossings of valley and stream corridors.

Unavoidable impacts to the natural heritage system and the need for ecosystem compensation should also be factored into costing analyses. TRCA will recommend ecosystem compensation for loss of natural features at the EA stage of the project and at detailed design under TRCA's permitting process. This is especially important to assess early in the process, since infrastructure maintenance requirements may limit opportunities for placement of restoration plantings within the infrastructure footprint. Similarly, restoration locations outside the transmission corridor may be limited due to the GTA West Highway footprint and development pressures in proximity to the proposed study area. Comprehensive, upfront planning for the corridor will help streamline the approach to finalizing compensation at later planning stages and provide an estimate of the associated cost to better inform the preferred alignment.

Further, given that several hectares of TRCA-owned property will be traversed by the transmission corridor, TRCA Property staff request that future TRCA land acquisition costs be included within the costing analysis of

the study and, once the design has been finalized, that negotiations be undertaken regarding land base compensation for any lands impacted.

A comprehensive analysis that considers all of the study principles equally, and the impacts of a changing climate, should determine the most cost-effective outcome in the short and long term.

In order to plan for the most effective outcome, TRCA recommends that the criteria for selecting a recommended transmission corridor include factors in addition to cost, and that these criteria be evaluated and weighted such that the process to determine the preferred route alternative is clear and transparent.

Principle 3: Minimize impacts to natural heritage, agricultural and hydrological features consistent with provincial policies

Minimize corridor impacts on the natural heritage system, agricultural lands and hydrologic features consistent with provincial policies and plans (e.g., Provincial Policy Statement, Growth Plan, Greenbelt Plan).

TRCA supports this principle as The Living City Policies align with provincial and municipal policies for protection of natural heritage and water resources systems as well as agricultural lands. In order to meet this principle, the study criteria should include evaluation of impacts to watercourses, wetlands, and valley and stream corridors. TRCA recommends that this principle also incorporate the provincial requirements of reducing the risks associated with natural hazards of flooding and erosion. The PPS directs that infrastructure should be strategically located to support the effective and efficient delivery of services, and to ensure the protection of public health and safety in accordance with the natural hazard policies in Section 3.0. As well, the Growth Plan states that infrastructure must be adapted to be more resilient.

Siting of infrastructure during the next planning phases will be important to achieving resilience and to avoiding and minimizing impacts to natural heritage, and to avoiding and mitigating risks associated with natural hazards. Construction technologies for installing underground infrastructure to avoid natural feature removals may be preferred to above-ground, although studies need to determine which options will best minimize impacts. It is TRCA's understanding that an EA will be completed to further assess the preferred alignment as determined by the corridor study, followed by design and permitting. We look forward to further involvement as the analysis supporting the various alignments within the recommended corridor takes place.

Should the transmission corridor study reveal limited opportunities for restoration plantings within the corridor due to maintenance access needed for infrastructure components, there may still be opportunity for meadow habitat restoration. TRCA's [Meadowway](#) project is a unique approach to integrating and naturalizing linear public open space into urban landscapes. The existing infrastructure corridor spanning TRCA watersheds is undergoing enhanced naturalization with meadow habitat and trail construction, subject to restrictions on uses within the corridor. It is recommended that future transmission corridor design alternatives for the current transmission study consider opportunities to enhance biodiversity in this way, thereby meeting shared public agency objectives and provincial policies for active transportation and climate resilience.

Principle 4: Minimize impacts on built up areas

Corridor routing should minimize impacts on existing municipal plans in the study area, including impacts on existing built up areas, cultural heritage, planned developments and airports.

TRCA staff have worked closely with municipalities and the development industry to plan for the development, redevelopment and intensification of the areas in proximity to the corridor while protecting and enhancing the natural heritage system and avoiding and mitigating the risk associated with flood and erosion hazards. Natural heritage lands, including hazardous lands, have been conveyed into public ownership through municipal planning processes. TRCA supports the principle that impacts to municipal plans and built up areas be

minimized, especially given the significant efforts invested in negotiating for the protection, management and public conveyance of natural system lands.

Principle 5: Provide flexibility for the future

- *Corridor routing should take a long-term view and should not preclude reasonably anticipated future infrastructure requirements.*
- *Corridor routing should allow for connections to existing electrical infrastructure.*
- *Corridor routing should not preclude specific technology types, which will be determined by a future transmitter (i.e., overhead lattice, overhead monopole, underground).*
- *Corridor routing should preserve sufficient flexibility for future environmental study.*

TRCA agrees and supports the statements regarding flexibility for the future as listed in this principle. Indeed, as indicated in our comments above, TRCA recommends that routing should take a long-term view in order to consider future costs and to prepare for the impacts of a changing climate.

We recommend that in terms of future infrastructure requirements that recreational / trail considerations should also be considered. The Parkway Belt West Plan included conceptual trail alignments for a similar scale hydro transmission and utility corridor. You may wish to reference the September 2019 [TRCA Trail Strategy](#) in your study and the future EA and design work should be viewed as an opportunity to implement TRCA Trail Strategy through an approach similar to TRCA's work with Hydro One and the City of Toronto with the Meadoway on the Gatineau corridor in Toronto.

With regard to specific technology types, TRCA appreciates this flexibility given that a future transmitter's ability to choose between above ground versus below ground infrastructure or a mix of both is important for exercising the best option for minimizing, mitigating and compensating for environmental impacts.

Also noted above, we understand that an EA will be completed at a later stage to further narrow the transmission route within the broader protected corridor. TRCA appreciates that there will be some level of flexibility within the corridor to adjust the location of the transmission infrastructure, once data become available to further inform exact alignments.

Question 1: Are you aware of potential barriers or issues that may be associated with the proposed narrowed area of interest?

In January 2020, TRCA staff reviewed the potential impact of the various proposed MTO transportation alignments for the GTA West Highway on TRCA-owned property. At that time, the potential impact to TRCA-owned property from the transportation corridor ranged from 8 to 73 hectares (ha), depending on the route. In TRCA's report of January 24, 2020 entitled "GTA West Transportation Corridor Individual Environmental Assessment," submitted to MTO, TRCA identified several areas of concern including possible impacts to TRCA-owned lands.

The 2019 Focused Analysis Area for the GTA West Highway Environmental Assessment and the Proposed Transmission Narrowed Area of Interest represent a broader area of study than the specific transportation routes evaluated in January 2020. The total potentially affected TRCA-owned land in the Proposed Transmission Narrowed Area of Interest is approximately 130 hectares.

The majority of the potentially impacted TRCA lands are in the Nashville Conservation Reserve (NCR) in Vaughan. The NCR is a 900+ hectare TRCA property that supports a variety of wildlife, provides significant deer wintering yards and is an important migratory corridor. It is a diverse site containing many different habitat types such as forests, wetlands, meadows, former agricultural fields and small tributaries that feed into the main branch of the upper Humber River. Phase 2 of the Nashville Multi-Use Trail Project, undertaken by TRCA in partnership with York Region and the City of Vaughan, is currently ongoing and will build a 400-metre

section of compacted granular trail to improve trail quality, accessibility and inter-regional trail connections in the vicinity of the GTA West Highway preferred technical route. The NCR's large size and current and future ecological value make it an integral part of our city-region's natural heritage system.

TRCA appreciates that a protected corridor for electrical transmission is required to accommodate projected energy needs for rapidly growing communities. Rather than being a barrier, the protected ecosystems and nature-based recreation opportunities currently being enhanced and established in the NCR also represent an important public service that should be able to persist in tandem with the highway and the transmission corridor. Therefore, TRCA recommends that the transmission study direct the future transmitter to mitigate the impacts that construction and installation will have on the NCR, and where this is not possible, to integrate natural system and trail connectivity into the different infrastructure components to maintain connectivity for both wildlife and public use.

Question 2: Are there other principles we should consider in conducting the study?

As mentioned in the comments on Principle 2, TRCA recommends that avoiding or reducing the risk associated with natural hazards of flooding and erosion also be included as a guiding principle of the study. TRCA is an agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the PPS. Consideration of natural hazards should be incorporated as early as possible in the infrastructure planning process of the transmission corridor location and is an appropriate consideration to include in the study as it relates to climate resiliency. In TRCA's experience, placement of hydroelectric corridors adjacent to and crossing valley systems results in increased erosion risk, as regular maintenance within the corridor often creates a need for access routes through sensitive areas, over watercourses, down valley slopes and through wetlands. It will be essential once this project moves into the EA phase, that the type of infrastructure technology and location for a route to be identified and recommended that avoids sensitive and hazardous areas to the extent possible.

TRCA Property staff request that there be coordination with TRCA throughout the transmission corridor planning and design process to further review and provide input on options to avoid and mitigate impacts to TRCA-owned lands, and to determine an alignment that will minimize and/or mitigate impacts through the Nashville Conservation Reserve.

Question 3: Do you have any other outstanding questions or concerns?

Based on the review of information on the transmission corridor and the GTA West Highway provided to date, TRCA staff raised several issues that have yet to be addressed. Many of these issues are also relevant to both projects, such as:

- What will be the cumulative impacts of two infrastructure corridors on the surrounding NHS?
- Will there be further updates provided by ENDM regarding background information to inform a preferred corridor?
- How and where will this be documented? Will this be documented through the IESO's Integrated Regional Resource Plan update or through another process?
- The geographic scale of the protected transmission corridor is not clear. TRCA requests that ENDM clarify the proposed protected corridor width in order to inform further TRCA feedback.
- The potential orientation of the transmission corridor relative to the GTA West Highway project is not clear (i.e., will the transmission corridor alignment be located to the north or south of the highway?) TRCA requests clarification on this matter, noting that significant potential impacts to sensitive lands, including TRCA-owned lands, may occur depending on the selected approach.

In addition to providing responses to the above questions, TRCA also requests ENDM to consider a number of recommendations as described below.

TRCA Recommendations

In order to support the government's proposal to identify a corridor for electricity transmission in support of regional growth in Halton, Peel and York regions, and continue to ensure the protection of people and property from natural hazards and the conservation of natural resources, TRCA recommends the following:

- 1) That in the interest of conforming to the Provincial Policy Statement, which requires infrastructure and public service facilities to be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs, the transmission corridor study address TRCA comments regarding:
 - flood and erosion hazards;
 - watercourse and wildlife crossings;
 - stormwater management;
 - natural feature removals and corresponding ecosystem compensation;
 - land use and/or acquisition of TRCA-owned conservation lands;
 - climate resilience.
- 2) That in addition to co-locating the transmission corridor with the GTA West Transportation Corridor, that the planning processes for these two major projects be coordinated in order to optimize opportunities to avoid, minimize, mitigate and compensate for environmental impacts.
- 3) Regarding projected costs:
 - a. That the study principles be fairly weighted so that major environmental impacts will not be accepted in favour of least-cost alignments.
 - b. In order to plan for the most effective outcome, that the criteria for selecting a recommended transmission corridor include factors in addition to cost, (e.g., all study principles and the impacts of a changing climate), and that these criteria be evaluated and weighted such that the process to determine the preferred route alternative is clear and transparent.
 - c. To streamline the approach to finalizing required compensation at later planning stages and inform cost estimates, that requirements for ecosystem compensation (to compensate for unavoidable impacts to the natural heritage system) and associated costs be considered in the study.
 - d. That future TRCA land acquisition costs be included within the costing analysis of the study and, once the design has been finalized, that negotiations be undertaken with TRCA Property staff regarding land base compensation for any lands impacted.
- 4) That the transmission corridor study criteria include evaluation of impacts to watercourses, wetlands, and valley and stream corridors.
- 5) That the provincial requirements of reducing the risks associated with natural hazards, be added to Principle 3 on provincial policies.
- 6) That future transmission corridor design alternatives consider opportunities to enhance biodiversity, incorporate active uses and fully maximize restoration opportunities within the corridor, subject to restrictions on uses within the corridor, using [The Meadoway](#) project as a model.

- 7) That the environmental impacts of above- versus below-ground technologies be considered in future decisions on technology and alignment alternatives, noting TRCA's preference for the option that will minimize environmental impacts.
- 8) That the transmission study direct the future transmitter to mitigate the impacts that construction and installation will have on the Nashville Conservation Reserve, and where this is not possible, to integrate natural system and trail connectivity into the different infrastructure components to maintain connectivity for both wildlife and public use.
- 9) That there be coordination with TRCA throughout the transmission corridor planning and design process to further review and provide input on alignment options to avoid, minimize and mitigate impacts to TRCA-owned lands, including the Nashville Conservation Reserve.

Thank you once again for the opportunity to provide comments on the proposal to identify and protect a corridor of land for future electricity infrastructure in the GTA. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6290 or at john.mackenzie@trca.ca.

Sincerely,

<Original signed by>

John MacKenzie, M.Sc. (PI) MCIP, RPP
Chief Executive Officer

BY-E-MAIL

Cc: Lukasz Grobel, Project Manager, Ministry of Transportation

TRCA: Laurie Nelson, Director, Policy Planning
Sameer Dhalla, Director, Development and Engineering Services
Moranne McDonnell, Director, Restoration and Infrastructure
Beth Williston, Associate Director, Infrastructure Planning and Permits
Daniel Byskal, Associate Director, Property and Risk Management