



January 30, 2009
Our Ref.: 33015835

Ministry of Natural Resources
615 John Street North
Aylmer, Ontario N5H 2S8

Attention: Daraleigh Irving
District Planner

Re: Detroit River International Crossing Environmental Assessment Study

Dear Ms. Irving:

Thank you for your comments submitted in response to the Draft Environmental Assessment (EA) Report made available for public, agency and stakeholder review between Wednesday, November 12, 2008 and Friday, December 12, 2008.

Please refer to the attached table for responses to your concerns raised with respect to the draft EA Report. The responses included in the table were discussed with you at a meeting held on January 21, 2009. As per the attached table, additional information related to the comments received on the Draft EA, and changes in wording or clarification to existing text have been included in all relevant chapters of the Final EA Report.

As you are aware, the Environmental Assessment Report (the EA Report), which reflects comments received from all stakeholders during the review period noted above was filed with the Ontario Ministry of the Environment (MOE) on December 31, 2008.

A Canadian Environmental Assessment Act (CEAA) report is currently being prepared, and will be submitted to the Canadian Environmental Assessment Agency (CEAA) early in 2009. The study team will continue to work with the Ministry of Natural Resources to address natural heritage concerns and associated permit requirements during future design stages.

If you have any further comments or require additional information, please feel free to contact us through the project website at www.partnershipborderstudy.com, or by calling the Project Toll Free number at 1-800-900-2649.

Again, thank you for your participation and comments.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Murray Thompson'.

Murray Thompson, P.Eng.

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Consultant Project Manager

cc. Catherine McLennon, MOE
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Roger Ward, MTO
Joel Foster, MTO

Encl.

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Comment	Action / Response
<p>Thank you for the opportunity to review the Draft Environmental Assessment Report for the Detroit River International Crossing Study (URS, November 2008). We have reviewed this document as it relates to our ministry's mandate with a specific focus on natural heritage and natural resources. Please note that our review has been completed without receipt of the revised Natural Heritage Report. As such, the comments below reflect only our review of the Draft Environmental Assessment Report (EAR). Once the revised Natural Heritage Report is submitted, our comments may be addressed, refined or enhanced.</p>	<p>The Natural Heritage Impact Assessment – Recommended Plan (2008) has been released for review and comment. This Report provides additional information to the Draft Environmental Assessment Report (Draft EAR) and addresses many of these comments.</p>
<p>General Comments: Overall, the authors of the Draft EAR have completed a thorough review of the issues and have attempted to address them. We acknowledge that the implementation of the Endangered Species Act 2007 brings forth new challenges; as these two processes are evolving concurrently, we appreciate the ongoing dialogue that has enabled us to address new and complex questions.</p>	<p>MTO and the consulting team will continue to discuss this challenging project with MNR during later design stages.</p>
<p><i>Incomplete Data and Analysis</i> Though this large comprehensive and complex report integrates several disciplines and attempts to synthesize the extensive data collection that has occurred since 2005, it appears that there are gaps in the data and/or analysis. Specifically, field work completed in 2007 and 2008 does not appear to be included in the Draft EAR. Furthermore, we note that many of our previous comments do not appear to have been incorporated into the Draft EAR. Due to the short timelines associated with the agency review of the Draft EAR along with the delayed release of the revised Natural Heritage Report, our review should be deemed cursory in nature.</p>	<p>Data collection and analysis completed during previous planning stages are documented in the Draft EAR and in previous Natural Heritage Reports. The results of the 2008 field investigations are documented in the Natural Heritage Impact Assessment – Recommended Plan (2008). The information contained in the Draft EAR was derived from previous reports and documents the information that was available at that time.</p>
<p><i>Endangered Species</i> It is important to clarify the language regarding the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the Committee on the Status of Species-at-Risk in Ontario (COSSARO), the Species at Risk Act (SARA) and the Endangered Species Act (ESA). For greater clarity:</p> <ul style="list-style-type: none"> • COSEWIC and COSSARO are assessment bodies; specifically, they assess species and recommend 'at risk' rankings to the federal and provincial governments, respectively. Their rankings are a recommendation, not a legal listing. • Environment Canada (EC-CWS or DFO) and MNR take that recommendation and list the species under the federal Species at Risk Act (SARA) and/or the Endangered Species Act (ESA) 2007, respectively. The 'at risk' ranking assigned under SARA or the ESA 2007 is the legal listing. <p>From a biodiversity standpoint, there is value in recognizing the COSEWIC and COSSARO recommended ranking, as they may sometimes differ from the legal ranking. Also, the COSEWIC/COSSARO rankings can indicate species that will soon have a change in legal ranking. With respect to the mention of 'schedules' under the ESA 2007, it is of more value to identify the legal ranking under the ESA 2007 than the schedule it falls within. The schedules contained within the ESA 2007 were intended to identify the transition in protection for the species listed under the former Endangered Species Act (1971) to the new Endangered Species Act (2007). Furthermore, the significance of species at risk, whether listed or rare, appears to have been downplayed in this report. This is done by identifying only the SARA species and then using language such as "Several provincially, regionally or locally significant species that occur..." It should be noted that there are vast numbers of provincially, regionally or locally rare species. The listing and the rarity should be clarified in the revised Natural Heritage Report and the Final EAR.</p>	<p>The Natural Heritage Impact Assessment – Recommended Plan (2008) refers to the regulated status (i.e. endangered, threatened or special concern as identified in the Regulations to the ESA 2007 and SARA), the schedule status (i.e. Schedule 1, 2, etc. to identify the transition in protection for the species) and the designated status (i.e. endangered, threatened or special concern as identified by COSEWIC and COSSARO). There was no intention of downplaying the significance of provincially, regionally or locally rare species. The large number of provincially rare species found within the study area makes it difficult to address all of them; therefore, only regulated species (i.e. those listed as endangered, threatened or special concern under SARA or ESA 2007) are addressed specifically in the Report. The Natural Heritage Impact Assessment – Recommended Plan (2008) lists all species identified in the study area that are ranked S1-S3 by the Natural Heritage Information Centre. Many of these provincially, regionally and locally rare species occur in rare vegetation communities and designated natural areas so the emphasis was placed at the community/ecosystem level.</p>
<p><i>Use of Metric System</i> We recommend the Final EAR be written in the metric system (i.e. Canadian system). The author switches between metric and imperial systems.</p>	<p>In general, the final EA Report provided all measurements in metric. The only exception to this was the use of acres to describe the area of parkland. This unit of measurement was used to maintain consistency with materials previously printed.</p>
<p>The Draft Environmental Assessment Report The air photo figures were poorly reproduced in the Draft EAR. This should be addressed in the Final EAR.</p>	<p>All aerial photographs in the Final EA Report were updated to improve overall appearance and quality.</p>
<p><i>Section 4.5, Cultural Resources</i> There appears to some detail outlining the Euro-Canadian history; however, there is little or no reference to Aboriginal issues or pre-settlement occupation.</p>	<p>There is no detailed account of aboriginal issues/pre-contact settlement in the EA report because that information has been covered in depth in two previous reports prepared for the DRIC project: <i>Stage 1 Archaeological Assessment-Detroit River International Crossing, Existing Conditions for Archaeological Resources (ASI 2005, 2006)</i> and <i>Stage 2 Archaeological Assessment of the Detroit River International Crossing (DRIC), City of Windsor and County of Essex (Town of LaSalle and Town of Tecumseh), Ontario (ASI 2008)</i>.</p> <p>In addition, although there is archaeological information for the broader region of southwestern Ontario, lands within the City of Windsor are not well known archaeologically. Indeed, more archaeological work has been done in Windsor because of the DRIC project than all past efforts combined.</p>
<p><i>Section 4.6, Natural Environment</i> In regards to page 4-29, table 4.6, we recommend that the number of provincially listed species is included. Currently, table 4.6 mentions the number of federal SARA species and then the number of "provincially and locally significant species". The same concern applies to table 7.17 (page 7-73).</p>	<p>These tables were prepared earlier in the study before the ESA 2007 took effect. All new species lists provided in the Natural Heritage Impact Assessment – Recommended Plan (2008) include the status of regulated species under ESA 2007.</p>
<p><i>Section 4.6.1, Geology / Subsurface Environment</i> The potential impact of past solution mining activities in the area has been adequately addressed through the drilling of wells and evaluations undertaken by MTO. No further work is required. There continues to be a potential concern of locating the bridge and/or plaza close to the BP Canada Energy Windsor Storage Facility (4300 Matchette Road/ EC Row). MNR regulates the storage caverns under the Oil, Gas and Salt Resources Act and by adopting CSA Z341 Storage of Hydrocarbons in Underground Formations. BP Windsor Storage Facility is a nationally significant facility and parts of it are subject to National Energy Board approvals. This facility stores propane/</p>	<p>During the study a meeting was held with the RCMP who conducted a Threat and Risk Assessment for the Windsor area. This assessment concluded that there are no specific concerns within the Windsor area. As such, it is anticipated that no known potential safety risks exist in the vicinity of with the nearby BP Canada Energy Windsor Storage Facility.</p>

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<p>ethane/butane type of feedstocks in underground storage caverns. These feedstocks are flammable and explosive; furthermore, relatively large volumes are stored under high pressures at this facility. These stored products provide feedstocks for some of the refineries in Sarnia. If not already completed, we would recommend that the proposed route /plaza should consider the potential safety risks with the nearby storage facility and determine if any additional mitigation measures are required as a part of the Hazard Identification and Risk Assessment.</p>	
<p><i>Section 4.6.2, Aquatic Habitat and Communities</i> In regards to Detroit River, we seek clarification on the following:</p> <ul style="list-style-type: none"> Proximity of the piers to the Detroit River Is there a requirement for shoreline reinforcement near those piers? If so, we recommend that soft shoreline techniques be used instead of sheet pilings. <p>The small tributaries, especially those that may support spring fisheries and spawning have been considered separate from the Detroit River. The nearshore areas of the Detroit River and the interactions with tributary mouths (i.e, some area identified as spring pike spawning or areas with gravel substrate) should be considered at the holistic level. Along this stretch of the Detroit River, nearshore habitat is lacking and limited. Soft shoreline techniques and interaction with tributaries may mitigate against the deep transportation channel of the Detroit River. Further characterization of the substrate and spawning suitability should be considered at the proposed pier area. Fish mitigation patterns should be considered if a pier is close to the river. It appears there is a lack of information regarding potential spills oil leaks etc.; particularly as downstream of the proposed ditch includes large spawning areas for walleye, perch, whitefish, sturgeon and northern madtom (SAR). This should be considered.</p>	<p>The location of the piers in the vicinity of the Detroit River will depend on the type and design of the bridge. It is anticipated that the piers will be set back from the shoreline a sufficient distance to avoid any impacts to the Detroit River and its shoreline. Stormwater management practices will be implemented for the Windsor-Essex Parkway, inspection plaza and crossing. These measures will reduce the potential for release of deleterious substances (including petroleum, oil and lubricants, sediment and stormwater) to the Detroit River and its tributaries. Two small tributaries to the Detroit River in the vicinity of the inspection plaza (Healy Drain and Broadway Drain) provide opportunities for fish habitat compensation, which will be explored during later design stages.</p>
<p><i>Section 4.6.3, Vegetation and Vegetation Communities</i> In the last paragraph, the author states that there are 615 plant species and 133 are non-native; while in section 7.5.1, the author identifies 618 plant species and 186 are non-native. Clarify this discrepancy.</p>	<p>Information is updated at each stage of the planning process. The information presented in section 4.6.3 was derived during the illustrative alternatives stage and is based on secondary information. The information presented in section 7.5.1 was derived during the practical alternatives stage and is based on field investigations. Additional species were documented during the species at risk surveys conducted during 2008 and this information is presented in the Natural Heritage Impact Assessment – Recommended Plan (2008).</p>
<p><i>Section 4.6.4, Wildlife and Wildlife Habitat</i> We are currently working with LGL/ MTO to complete the wetland evaluation for the newly identified Ojibway Prairie Wetland Complex, which will be designated a provincially significant wetland. We will forward the wetland evaluation along with its boundaries once completed.</p>	<p>Thank you for your assistance.</p>
<p><i>Section 4.6.5, Designated Natural Areas</i> We (Ontario Parks) are willing to discuss further potential opportunities surrounding the dedication of lands for protection. Specifically, opportunities to secure additional lands adjacent to Ojibway Prairie Provincial Nature Reserve, for the purposes of adding them to the park, would contribute to the protection of provincially significant species and associated habitat. In addition, consideration could be given to improving the outdoor recreational opportunities within the nature reserve e.g., trail and viewing platform upgrades. This part of Ontario is considered to be one of the most biodiverse areas of the province; specifically for the number of species at risk. To highlight this biodiversity, we have attached a compilation of plant SAR for the Ojibway area and Walpole Island (Woodliffe 2001). While Walpole Island is the single most significant natural area in Ontario with its size, array of significant natural areas (e.g. prairie, savanna and wetland); however, Ojibway area is also phenomenal. There are approximately equal numbers of recorded plant SAR on Walpole Island and the Ojibway area. The greater Ojibway area has been noted as one of the best areas in the province for insects, especially those that are SAR. Species new to science have been found in the Ojibway area. The significance of these designated natural areas is greatly understated in the Draft EAR. <i>Lespedeza virginica</i> is also located in the Titcombe Road North ANSI (page 4-26); as an endangered species that is afforded general habitat protection under the ESA 2007, it is of significance and should be identified in this section.</p>	<p>Thank you for the list of species at risk recorded at Ojibway Prairie and Walpole Island.</p> <p>The significance of Ojibway Prairie is recognized by the study team and is evident in the documentation prepared for the Detroit River International Crossing study throughout all planning stages.</p> <p>MTO welcomes the opportunity to collaborate with Ontario Parks and other conservation organizations for the long term securement and dedication of natural heritage areas.</p> <p>The presence of <i>Lespedeza virginica</i> located in the Titcombe Road North ANSI is noted.</p>
<p><i>Section 6.3.1, Central Alternatives, Conclusions</i> According to the authors, it appears aspects of regional mobility are considered of greater importance than edges of sensitive natural heritage features. This determination should be substantiated using scientific qualitative assessment. As many of the species involved are known to be at risk of extinction, we seek clarification on whether regional mobility have been consider of greater importance than edges of sensitive natural heritage features.</p>	<p>During the Illustrative Alternatives stage the Canadian Study Team weighted seven evaluation factors as shown in Table 6.4. The factor of “improving regional mobility” was weighted more heavily than other factors including “protection of natural environment” as improving regional mobility is one of the primary purposes of the project.</p> <p>The study team recognizes that there is greater complexity of the trade-offs to be made in the evaluation of illustrative crossing, inspection plaza and connecting route alternatives are shown in Exhibit 6.13.</p> <p>Overall, it was concluded from the Illustrative Alternatives assessment that Huron Church Road/Talbot Road (Segments CC-CI-CM) was preferred for the following reasons:</p> <ul style="list-style-type: none"> Would provide greater improvement to regional mobility than the alternatives that utilize the E.C. Row Expressway by providing another freeway connection leading to the border crossings. Would be less disruptive to existing and planned land uses than the Talbot Road bypass alternative and the Todd Lane/Malden Road/Ojibway alternatives; and Would have fewer impacts to the important natural features west of Huron Church Road than the Todd Lane/Malden Road/Ojibway alternatives. <p>Although the options that would utilize all or a portion of E.C. Row Expressway would avoid the sensitive natural features west of Huron Church Road, the benefits to regional mobility associated with the Huron Church Road/Talbot Road alternative were</p>

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	<p>considered of greater importance than the impacts to the edges of these features in selecting the alternative to carry forward for further study.</p> <p>The Huron Church Road/Talbot Road alternative would avoid altogether the natural heritage areas designated as Provincial Nature Reserve, ANSI and ESA with one possible minor exception on the west side of Huron Church Road. The population and distribution of species at risk for this alternative was not known at the time of the evaluation because the evaluation was based on secondary source information and the only information available for species at risk came from inventories conducted within the ANSIs, ESAs, PSWs and CNHS. It was not until the practical alternatives stage that the population and distribution of species at risk became known through detailed field investigations. Several reasonable assumptions were made: 1) that the majority of species at risk were located in the designated natural areas and that by remaining outside of the designated natural areas, the majority of the species at risk could be avoided; 2) that all alternatives had to be compared using the same level of detail to ensure a fair comparison and 3) that the level of detail was reasonable and practical to facilitate the evaluation and selection of practical alternatives. It was not possible to know the quality of the edge communities at the time of the evaluation and detailed field investigations for most of the illustrative alternatives that were not carried forward may reveal similar conditions.</p> <p>The results of the assessment and evaluation can be found in Table 6.9 <i>Summary of Assessment of Central Connecting Route Segments</i>.</p>
<p><i>Section 6.3.2, Crossing / Plaza Alternatives, Tables 6.10 to 6.12</i> In these tables, there is a criterion specific to the quantity of endangered or threatened species (ETS) and/or their habitat. We are seeking clarity on the criteria used to identify and measure habitat for endangered species and threatened species. There are a significant number of endangered species and threatened species that will be impacted as a result of the project. For example, in Table 6.11, the Eastern Foxsnake has a fairly large home range, and only 13 or 14 hectares have been identified to be impacted. The Plaza area for the TEPA is at least 55 hectares. We suggest that the authors consider whether more of the Plaza could be habitat for the Eastern Foxsnake as well as other endangered species and threatened species. The quantity identified in the table does not appear to align with our understanding of the impact of the project on the habitat of endangered species or threatened species. We have not received mapping for the habitat of endangered species and threatened species; as such we seek to review the mapping and analysis. We understand that surveys are ongoing for certain species at risk. As we are uncertain in the methodology for identifying the quantity of ETS / habitat and consequently the impacts from a particular alternative on the identified ETS / habitat, we are unclear whether a stringent/ effective comparative analysis has occurred. Also, we request additional information on how the low-moderate-high impact assessments in the tables were determined. Some low or moderate impacts, if only compared spatially, can represent high impacts to individual species or ecological functions, depending on the actual location and nature of the disturbance. More details on the arithmetic evaluation should be provided to discern the differences in why X10 was selected as a preferred option over X1, which scored the same, with specific reference to species and natural areas impacted between the two.</p>	<p>Information used in the analysis of illustrative alternatives was based on secondary data sources. The area of designated natural areas known to support species at risk was used for the purposes of the evaluation. The presence/absence of species at risk was confirmed during field investigations conducted during the practical alternatives stage.</p> <p>Table 6.13 – <i>Results of Arithmetic Evaluation</i> was added to the Final EA Report. This table provides additional information regarding the arithmetic evaluation including the results of each of the project team, public and community consultation group weighting scenarios.</p>
<p><i>Section 6.3.2, Crossing / Plaza Alternatives – Table 6.11</i> In Table 6.11, Plaza CC2 is not presented. Clarify whether Plaza CC2 and Plaza CC3 are separate or combined. According to Exhibit 6.3B, the size of CC2 is 214 acres and CC3 is 80 acres and therefore results in a combined footprint of 294 acres or ~119 hectares. Consequently, it appears that a quantity of 13 or 14 ha of ETS habitat would be impacted may be low. Furthermore, based on our understanding of the plazas and crossings, CC7 (as should on exhibit 8.3) should have a much lower impact on the natural environment than CC2 and /or CC3.</p>	<p>Plaza CC2 was considered separately. An assessment of CC2 is evaluated in the <i>Draft Generation and Assessment of Illustrative Alternatives Report (November 2005)</i> in Table 3.6.</p> <p>We acknowledge your comment on plaza sites CC7 as shown in Exhibit 8.3. Early in the Illustrative Alternatives stage Plaza CC7 was evaluated as being located on the east side of Sandwich Street and the subsequent evaluation for natural environment was done for this location as illustrated in Table 6.11. However, during the Practical Alternatives stage Plaza CC7 was located to the west side of Sandwich Street.</p> <p>The rationale for moving the Plaza to the west side instead of the east is that the site to the east is generally bounded by the Detroit River, Prince Road, Essex Terminal Railway and the City of Windsor Lou Romano Water Reclamation Plant. The site is on the south end of Sandwich Towne. It is currently occupied by residential, commercial and industrial uses, including an emergency services training facility. The site is adjacent to a dense residential area. Mic Mac Park is located east of the Essex Terminal Railway, which borders the east limit of the site.</p> <p>Given the nature of the area above and through consultation with residents residing on the east side of Sandwich Street, the decision was made to move Plaza CC7 to west of Sandwich Street. Additionally, Plaza CC7 was one of the plazas to provide direct connections to one or more crossings.</p>

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	Alternatively, Plaza CC7 was later referred to as Plaza C during the Generation and Assessment of Practical Crossing and Plaza Alternatives.
<p><i>Section 7.5, Natural Environment</i> In the subsections (e.g. vegetation, fish, wildlife), the report provides dates in 2006 and/or 2007 when field work was conducted. Specifically, in the draft EAR, vegetative data collection occurred only in 2006. We note that field staff were on site frequently in 2007 and 2008; yet there is no representative data. It does not appear that the data from 2007 and 2008 has been considered in the draft EAR; please ensure that the data and the analysis from 2007 and 2008 be reflected in the final EAR.</p> <p>Detailed location information on species at risk and other natural heritage values, from the Natural Heritage Report, is needed for comparative overlay with the suggested and alternate route locations. At this time, it is not possible for MNR to confirm either the assessment of individual impacts or to compare impact severity among the different proposed routes.</p> <p>Furthermore, we are unable to prescribe appropriate mitigation measures for the preferred route and plaza location or determine that the recommendations provided will result in benefits to species or areas as described. Specific impact assessments and comparison of mitigation measure effectiveness and feasibility need to be demonstrated in either the revised Natural Heritage Report or the Final EAR.</p>	<p>Field investigations conducted during 2006 and 2007 are documented in the Draft Practical Alternatives Evaluation Working Paper – Natural Heritage (2008). Field investigations conducted during 2008 are documented in the Natural Heritage Impact Assessment – Recommended Plan (2008).</p> <p>The botanical investigations conducted in 2008 were focussed on species at risk surveys. The results of these surveys are considered confidential and are not presented in the report.</p> <p>The population and distribution of species at risk located in the study area has been provided to MNR. Detailed mitigation strategies will be identified during the ESA 2007 permit application in consultation with MNR, CWS and WIFN.</p>
<p><i>Section 7.5.1, Vegetation and Vegetation Communities</i> It is important to note that many 'cultural' savannas and meadows identified in the study area still support indicators of natural savannas and prairies. Although these overall communities may exist in a degraded or cultural state, they often represent important functional habitats for plants and animals at risk. Some types of cultural disturbances such as mowing are not necessarily detrimental to the overall function of these communities, and may actually benefit the persistence of open meadow and remnant prairie habitats. Significance of vegetation communities must be evaluated on the basis of functionality as well as condition.</p> <p>In the last paragraph of the Tallgrass Prairie section, page 7-44, there is discussion regarding the value of groundwater and its benefits to the survival of tallgrass prairie communities. Our understanding of this discussion is that the groundwater in the surficial aquifer is important for the survival of tallgrass communities. We do not agree – most tallgrass prairie plant species are well adapted to drought prone situations.</p> <p>On page 7-47, Species at Risk, we recommend the following changes:</p> <ul style="list-style-type: none"> • Summer snowflake, a G2 species, is not native to Ontario and should not be included as a SAR. • Butternut is mentioned twice in this paragraph – once identifying it as listed under the ESA 2007, and once as only "provincially significant". Suggest removing mention under "provincially significant". • Spiked / dense blazing star: For consistency, choose either spiked or dense as reference made to both common names throughout the EAR (e.g. p.10-16). 	<p>Cultural meadows located within the area of investigation support indicators of natural savannas and prairies. Floristic Quality Assessment was used during the TEPA stage to take account for cultural meadows with strong prairie indicators.</p> <p>We agree that tallgrass prairies are tolerant of drought conditions on a seasonal basis; however, prolonged drought conditions, such as those that may occur from dewatering activities carried out over several years may result in changes to the composition, structure and function of tallgrass prairie communities.</p> <p>Summer snowflake will be removed from the species list. Butternut is regulated as Endangered under the ESA 2007 and is presented as such in the Natural Heritage Impact Assessment – Recommended Plan (2008). The Natural Heritage Impact Assessment – Recommended Plan (2008) refers to <i>Liatris spicata</i> as dense blazing star.</p>
<p><i>Section 7.5.2, Molluscs and Insects</i> In the Data Collection section, we would like to note that the Karner Blue Recovery Team is not a division of Environment Canada.</p>	Comment noted.
<p><i>Section 7.5.4, Wildlife Data Collection</i> From a statistical perspective, the point counts for birds will be useful to determine the relative abundance level of many species; however, point counts record the most abundant species and have a tendency to miss the less common species. The nest surveys will allow breeding species to be identified later in the season as the adults are feeding young.</p> <p>We note that the Visual Encounter Surveys (VES) were not completed for birds; VES were completed for other groups of fauna and provided the opportunity to spend quality time in various habitats targeted to ensure a greater number of species will be recorded. Specifically, provincially and locally SAR are more likely to be accounted for. It should be noted that the 5 or 10 minute point count relies mostly on hearing and is likely not to capture many of the less common species.</p> <p>On page 7-62, the author references the extirpation of Butler's Gartersnake from Malden Park after construction of the E. C. Row Expressway. This is a strong indication of what may occur to the current population of Butler's Gartersnake after construction of this project.</p> <p>FWCA is the Fish and Wildlife Conservation Act not the Fish & Wildlife Coordination Act.</p>	<p>Point count surveys account for all species of birds, whether they are rare or common. The point counts conducted during this investigation were targeted at the highest quality habitat, which have the highest potential to support rare species. Point count surveys by sound typically identify more birds than visual observation. A nest survey was also used to inventory birds and helped to verify the point-counts. Incidental observations were also recorded to ensure full coverage..</p> <p>Management of the Butler's gartersnake population located in the vicinity of the Windsor-Essex Parkway including habitat creation, snake translocation, frequent monitoring, vegetation management, restricting public access, prohibiting snake access to the freeway, adaptive management, etc. , will ensure the continued viability of this population.</p> <p>The reference to the <i>Fish and Wildlife Conservation Act</i> has been corrected.</p>
<p><i>Section 7.5.5, Designated Natural Areas</i> Exhibit 7.30: the ANSI boundary for Spring Garden is incorrect. For ANSI identification purposes, the ANSI should be delineated using the red line (ESA) as determined and approved by MNR.</p>	The boundaries shown for the Spring Garden Forest ANSI, ESA and CNHS were provided by MNR and the study team has chosen to remain true to the source. It is recognized that the boundaries for the Spring Garden Forest ANSI/ESA/ANSI were reconciled during the preparation of the Spring Garden Planning Area Secondary Plan. The reconciled boundary shown in the Spring Garden Planning Area Secondary Plan corresponds with the original ANSI boundary, not the ESA boundary. Revisions to the boundaries of this designated area are described in the Natural Heritage Impact Assessment – Recommended Plan (2008).
<p><i>Section 8.1.1, General Criteria – Crossings</i> Under environmental issues, consideration should be given to all natural heritage features including woodlands, provincially/regionally rare species, and not only "wetlands and/or endangered species".</p>	Agreed. The evaluation of Practical Alternatives considered all natural heritage features including these noted by MNR. The discussion on page 8-2 provides a brief summary of the environmental features considered.
<p><i>Section 8.1.2, Description of Practical Plaza and Crossing Alternatives</i> If possible, the footprint for Plaza B/B-1 or related components should be shifted slightly north to better avoid encroaching into identified significant natural areas. Additional route adjustments should be considered to further reduce impacts to identified sites for Butler's Gartersnake and Eastern Foxsnake along the south side of the EC Row Expressway. Any MNR authorization under the ESA 2007 to disturb regulated species or habitats will require a comprehensive assessment of all potential alternatives, including avoidance alternatives to the species, which could reduce the impact to existing species at risk values.</p>	The boundary for Plaza B1 is based on property ownership and the layout of inspection plaza facilities. A larger property would be required to avoid encroachment into the Black Oak Woods. The Windsor-Essex Parkway was realigned in the vicinity of known Butler's gartersnake habitat to avoid this habitat to the extent possible. Additional information on species at risk is provided in the Natural Heritage Impact Assessment – Recommended Plan (2008). The detailed information requested for Table 8.3 is contained in the Draft Practical Alternatives Evaluation Working Paper – Natural Heritage (2008).

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<p>We request that more information on the nature of species at risk should be provided in table 8.3 (page 8-12); specifically, number of endangered species, threatened species, species of special concern, and provincially/nationally rare species. This will help to discern the weight of the specific species at risk impacted by individual crossing alternatives, as compared to lumping all species together.</p> <p><i>Section 8.1.3, Analysis and Evaluation</i> It is our understanding that the additive weighting method is a good technique when alternatives differ from each other in significant ways (i.e the differences are large). For example, it may be considered an appropriate method to use when comparing the larger set of alternative crossings and routes and by applying adequate weighing factors to indicators and criteria at all disciplines levels (built heritage, storm-water management, natural heritage etc.). Clarification is sought on the use of "Simple Additive Weighting" in the impact assessment at the Area of Continued Analysis level as the method does not adequately differentiate between the various scenarios. Specifically, it does not give a representative weighing once the score is summarized along with the scores of other disciplines. One example is found in table 8.3 (page 8-13) where it appears that Plaza B is advanced for further consideration over other plazas due to the cost and time associated with the re-location of the Keith Transformer Station which is considered to be of "greater importance than the increased impact to the natural features". Furthermore, in table 8.3, when reading the "protect the Natural Environment" features impacts under each scenario, it is difficult to say that one plaza differs significantly in impacts to natural heritage features from another plaza because the summaries are too general. Following the logic through, with the scoring provided in tables 8.5, 8.6 and 8.7 is impossible. The detailed information needed to review the scoring in tables 8.5, 8.6 and 8.7 is provided in a document that is not yet available; as such, we cannot trace the logic in these tables or the decisions based on them. We returned to the Draft Practical Alternative Evaluation Working Paper-Natural Heritage to review the "Simple Additive Weighting". Generally, in additive weighting, results can be seriously skewed depending on the significance assigned to each factor and this is particularly true if "size" is used as a multiplier within the computation; size then tends to outweigh most other factors. The scoring system appears largely based on size of a unit (i.e. size is used as a multiplier), which means a "highly significant" corridor of "small size" can result in a score or weight that does not reflect its ecological importance or the impact of its removal or disturbance. Similarly, if a very large vegetative unit of low quality (from a vegetation perspective) that has high number of other species (animals, amphibians etc.) the score may not necessarily reflect its importance from a habitat perspective. It should be noted, that this is a weakness of the additive weighting method of assessment. To clarify, the assignments of weights to indicators and criteria are critical in the development of this method. It is unclear whether these have yet been sufficiently refined to provide a true reflection of difference between alternatives at the Area of Continued Analysis level. We are unclear whether appropriate weights have been given to the natural heritage feature as they it appears that they are largely based on the size of the unit. The authors indicate that the assignment of significance was assessed based on professional judgment and application of the principles of Landscape Ecology. These assignments should be provided to review. Specifically, we hope to see a more detailed / stronger summary of the data presented in Appendix J of the working paper as it would allow reviewers to comment on the methodology as applied; as well more clarity is sought for section 2.4.2. For example, in section 2.4.2.1 of the Draft Working Paper, three types of landscapes units were described/ recognized: patch, corridor and matrix, further in the same section "significance" were assigned based on criteria defined. However, the matrix, corridors and patches are not identified anywhere in the report so that they can be reviewed and the assignment of "significance" factors based on landscape ecology judged.</p>	<p>We note MNR's concerns with the application of the arithmetic method (i.e. Simple Additive Weighting) in evaluating the practical crossing, plaza and access road alternatives. Please note that the arithmetic method was not the primary evaluation tool. The reasoned argument method was used as the primary evaluation tool and the arithmetic method was used to confirm the results of the reasoned argument evaluation.</p> <p>As indicated on page 8-7 of the EA Report, the approved EA TOR for the Detroit International Crossing study identified two evaluation methods to be employed in the evaluation process: reasoned argument method and arithmetic method. The assessment and evaluation of these alternatives was undertaken following both a reasoned argument method, and an arithmetic method (weighted scoring). The reasoned argument method was the primary method, while the arithmetic method was the secondary method, which served as a basis of comparison for the evaluation findings.</p> <p><i>The Generation and Assessment of Practical Alternatives and Selection of the Technically and Environmentally Preferred Alternative -Plaza and Crossing (December 2008).</i></p> <p>The analysis of ecological landscapes was not included in the Draft Practical Alternatives Evaluation Working Paper – Natural Heritage (2008). This analysis is appended to these responses.</p>
<p><i>Section 8, Exhibit 8.3</i> On this Exhibit, Plaza CC7 is located on the west side of Sandwich Street; while on Exhibit 6.3B, Plaza CC7 is shown on the east side of Sandwich Street.</p>	<p>In the early process of Illustrative Alternatives, Plaza CC7 was located on the east side of Sandwich Street. Later during the Practical Alternatives stage Plaza CC7 was moved to be located on the west side of Sandwich Street.</p> <p>The rationale for moving the Plaza to the west side instead of the east is that the site to the east is generally bounded by the Detroit River, Prince Road, Essex Terminal Railway and the City of Windsor Lou Romano Water Reclamation Plant. The site is on the south end of Sandwich Towne. It is currently occupied by residential, commercial and industrial uses, including an emergency services training facility. The site is adjacent to a dense residential area. Mic Mac Park is located east of the Essex Terminal Railway, which borders the east limit of the site.</p> <p>Given the nature of the area above and through consultation with residents residing on the east side of Sandwich Street, the decision was made to move Plaza CC7 to west of Sandwich Street. Additionally, Plaza CC7 was one of the plazas to provide direct connections to one or more crossings.</p> <p>Plaza CC7 was later referred to as Plaza C during the Generation and Assessment of Practical Crossing and Plaza Alternatives.</p>
<p><i>Section 10.4.2 – Wildlife and Wildlife Habitat</i> Clarification is sought as to whether impacts to Golden-winged Warbler and Red-Headed Woodpecker or their habitat are anticipated. Although these species were not observed during surveys in the last season, suitable and recently used habitats should be identified, protected and mitigated. We recommend the following change: a significant quantity of SAR habitat will be lost, not may be lost. Prior to the identification of any mitigation measures, it should be clarified whether the Butler's Gartersnake and Eastern Foxsnake populations in these</p>	<p>Golden-winged Warbler is considered transient in this area and no breeding evidence was observed. Red-headed Woodpecker was observed in Black Oak Woods in 2006 and Ojibway Park in 2008. Both of these observations are considered beyond the area of influence of this project.</p> <p>Additional studies for species at risk will be carried out during later design stages. Wildlife salvage approaches will be identified at</p>

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<p>localized pockets will remain stable. It is noted that since faunal surveys are still ongoing, impact assessments and mitigation measures will need to incorporate future findings as well as better address existing information.</p> <p>The proposed relocation of snakes and other fauna from the project area should not be referred to as protection or mitigation measures since they do not avoid or alleviate impacts.</p> <p>The final EAR should provide more detail on the methodology of any “wildlife salvage” approach, since some species are legally protected and/or subject to animal care protocols.</p> <p>Mitigation statements such as “where feasible” or “where practical” do not provide support that a reasonably comprehensive analysis of project needs and environmental needs has been conducted. Detailed mitigation measures should be a requirement of this report as it has direct bearing the selection of the TEPA.</p> <p>We look forward to seeing detailed mitigation plans and species-specific management plans as they are developed and in preparation of the ESA 2007 permit application. When developing these detailed plans, we recommend the following be considered:</p> <ul style="list-style-type: none"> • Additional documentation as to why natural heritage values cannot be avoided. • Faunal mitigation measures, such as strategies to avoid/reduce snake and bird mortality, need to be identified in the final EAR so that design, construction and mitigation options can be considered that may influence the preferred and approved locations of the project features. Specifically: <ul style="list-style-type: none"> • Restoration efforts will need to include specific barrier designs to reduce road mortality of local reptile populations. • Additional information should be provided to substantiate that impacts to snakes can be mitigated through fencing, berming or light shielding. • To maximize the chance of survival of faunal populations, habitats proposed to be restored must be created and in a functional state prior to the alteration of existing features. • If suitable vegetation communities are restored, further clarity / analysis is needed to determine if other impacts such as road mortality, habitat fragmentation and trail creation will hinder the success of enhancement or replacement efforts. • The high number of species at risk and other natural heritage values within the project area combined with the complexity of the site warrant completion of related surveys and development of additional mitigation measures. <p>The term ‘compensate’ is used in the report in regard to anticipated habitat losses. It should be noted that <i>compensation</i> does not necessarily equal <i>mitigation</i> nor <i>overall benefit</i> with respect to impacts, and that sufficient information on the location, type and amount of habitat needed to adequately compensate for potential losses has not been provided.</p> <p>It is our understanding that the recommended plaza area has not been examined to determine the presence of habitat for Eastern Foxsnake although the species is known to occur in the AOI. We recommend that further analysis be undertaken to identify its habitat needs, including identification of landscape connectivity. For example, we believe that area of Plaza B may be very good habitat to supply many of the Eastern Foxsnake’s ecological needs.</p> <p>For the Plaza Area, we seek clarification on the nature of the landscaping and setbacks to be implemented for mitigation; specifically, more detail is needed to demonstrate these activities will adequately protect the original functions of the site.</p>	<p>that time.</p> <p>Detailed mitigation plans will be developed in preparation of the ESA 2007 permit application in consultation with MNR, CWS and WIFN. The detailed landscape plan to be prepared during later design stages will identify areas for protection, enhancement and restoration. The goal of the landscape plan is to offset the loss of species/habitat resulting from development of the Recommended Plan.</p> <p>The inspection plaza has been investigated thoroughly using the Visual Encounter Survey method. While an intensive snake survey using drift fence, basking boards, pit traps, etc. has not been conducted, eastern foxsnake was not recorded at the inspection plaza, even though the habitat in this area would be considered suitable. We would appreciate receiving any information that MNR has on the occurrence of eastern foxsnake at the inspection plaza, be it verified or anecdotal evidence.</p> <p>The site plan for the inspection plaza will be developed in greater detail during later design stages. The nature of landscaping and setbacks will be determined at that time in consultation with MNR, ERCA, CWS and WIFN.</p>
<p><i>Section 10.4.3, Vegetation and Vegetation Communities</i></p> <p>On page10-15, we suggest that the word “planted” in front of Common Hoptree and Dwarf Hackberry be removed.</p> <p>We appreciate that the Floristic Quality Assessment (FQA) approach has been used to further refine the significance of vegetation communities. It is unclear, however, how the information from the FQA were incorporated in the determination of low, medium and high values of the vegetation community. Please consider an additional analysis where the author overlay the faunal values, including an appropriate evaluation of habitat for the SAR ecological function, to come up with an overall value based on all SAR.</p> <p>Clarification is sought regarding the statement that there are no rare vascular plants in the right of way; also clarify the term rare in this section.</p> <p>It is already known that construction <i>will</i> result in loss of vegetation communities, as such replace <i>may</i> with <i>will</i>. Specific impacts should be sighted consistently throughout this section since the conclusion states “a total of approximately 100 ha of vegetation communities will be removed...” On page 10-16, clarify compensation for the 100 hectares.</p> <p>The test of overall net benefit to vegetation communities and SAR populations has not been supported in this Draft EAR. Instead, we recommend that the author state that the goal is to achieve a net overall benefit or provide additional supporting information.</p> <p>Please consider the following in the development of the detailed mitigation plans:</p> <ul style="list-style-type: none"> • Consideration of avoidance alternatives. Avoidance, in this context, is to the species. • Related plans and feasibility assessments for restoration/mitigation activities must be completed. These plans must be scientifically defensible and include criteria to determine effectiveness. • Further avoidance through adjustments to design and site plans should be considered. • Transplanting or transporting of species at risk, particularly regulated species, can not be considered an option until detailed translocation and/or habitat restoration plans are in place to ensure individuals are moved to areas with appropriate site conditions. • Information is reflected appropriately in the landscape plan. <p>The term “minimized to the extent possible” is used, see previous comments in wildlife section.</p> <p>The prairie communities will require regular fire to remain functional. Confirm whether the use of fire in proximity to the proposed TEPA is a viable alternative to maintain these vegetation communities. Prescribed burning should occur as ecologically appropriate for the site and related vegetation community, not necessarily “as frequently as possible”. Criteria should be established to monitor the natural areas.</p>	<p>The word “planted” has been removed for common hop-tree and dwarf hackberry.</p> <p>Additional details on the use of Floristic Quality Assessment (FQA) are provided in the Natural Heritage Impact Assessment – Recommended Plan (2008). The vegetation communities identified as “high quality” using FQA also support habitat for fauna species at risk, in particular, Butler’s gartersnake.</p> <p>There are no species at risk or high quality vegetation communities located within the right-of-way for the crossing, just the inspection plaza and Windsor-Essex Parkway. Impacts associated with displacement are described as “will”, while impacts associated with disturbance are described as “may.” The use of the term “will” is not entirely accurate, as the footprint of the Recommended Plan used in the analysis represents a reasonable worst case scenario while the actual footprint may be reduced through site-specific environmental protection measures.</p> <p>The term “achieve net overall benefit” has been removed and replaced with the term “offset the loss.” While it is MTO’s goal to achieve a net gain in the quality and quantity of vegetation communities through this project, this may not be attainable.</p> <p>Detailed mitigation plans will be developed in preparation of the ESA 2007 permit application in consultation with MNR, CWS and WIFN. The detailed landscape plan to be prepared during later design stages will identify areas for protection, enhancement and restoration. The goal of the landscape plan is to offset the loss of species/habitat resulting from development of the Recommended Plan.</p> <p>The Natural Heritage Impact Assessment – Recommended Plan (2008) goes into considerable detail on management approaches for several vegetation community types, particularly tallgrass prairies.</p>
<p><i>Section 10.4.4, Molluscs and Insects</i></p>	<p>The importance of tallgrass and oak savannah communities for insects is recognized. The protection, enhancement and restoration</p>

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<p>Tallgrass and oak savanna communities are generally known to support a significant diversity of insects, including provincially rare species. There is not sufficient information provided to demonstrate no significant adverse effects to Monarchs or other significant species that may be present.</p>	<p>of these types of vegetation communities will sustain the species that depend on these types of vegetation communities for survival, including insects.</p>
<p><i>Section 10.4.5, Fish and Fish Habitat</i> We note that fish locks have been introduced to mitigate the potential effects to fisheries at both Cahill Drain and Lennon Drain. Please confirm which DFO/MTO/MNR fisheries protocol is being applied to this project. Based on the response, we may request further discussion on fish locks and their effectiveness; as well as ensuring adequate information is provided within the final EAR. We note that Cahill Drain passage under highway 3 has been identified as a wildlife corridor of “note”. This wildlife corridor is proposed to be eliminate; please confirm whether further mitigation is anticipated.</p>	<p>Mechanical or manual lifts at Cahill and Lennon Drain will be investigated in greater detail during later design stages to maintain fish passage across the Windsor-Essex Parkway. The DFO/MTO/MNR Fisheries Protocol (2006) will apply to this project. The wildlife passage currently afforded by the structure at Cahill Drain will be lost. To offset this loss, the land bridges located between the St. Clair College Prairie and Spring Garden Forest will be naturalized to re-establish a connecting link between these two important designated natural areas.</p>
<p><i>Section 10.4.6, Designated Natural Areas</i> The stormwater management ponds along the south boundary of the proposed B-1 plaza location should be redesigned or repositioned to prevent encroachment in the Black Oak Woods feature.</p>	<p>The layout of the inspection plaza is limited by its size and functional requirements. An encroachment into the Black Oak Woods is required to meet the configuration requirements. Stormwater detention ponds were considered to be more benign in this area than other inspection plaza facilities.</p>
<p><i>Section 10.4.7, Landscape Plan</i> Please consider incorporating additional details regarding the landscape plan. Specifically, we are seeking clarity that the landscape plan will incorporate protection and / or mitigation measures determined to benefit ecological and species at risk benefits.</p>	<p>The detailed landscape plan will be developed during later design stages through consultation with MNR, ERCA, CWS and WIFN. The Natural Heritage Impact Assessment – Recommended Plan (2008) identifies a number of management strategies/approaches to be incorporated into the detailed landscape plan.</p>
<p><i>Section 10.5, Summary of Environmental Effects and Mitigation</i> We have the similar concerns as above for specific feature types and related recommendations. Generally, there is not sufficient information provided to demonstrate recommended activities represent adequate mitigation.</p>	<p>More specific details are needed to formulate a response.</p>
<p><i>Section 10.6.3 Natural Environment</i> There are several information gaps in the data, impact analysis and specific mitigation recommendations in the environmental assessment.</p>	<p>More specific details are needed to formulate a response.</p>
<p><i>Section 11, Commitment to Consultation, Compliance Monitoring and Permits/ Approvals</i> Page 11-1: To be accurate, please reference section 17 of the ESA 2007, not the permit class. A permit under s.17 of the ESA 2007 is required for this project to move ahead. A 17(2)d permit is not required - applying for a 17(2)d permit is the Ministry of Transportation’s decision.</p>	<p>While the Final EA Report discusses references to the class of the permit as noted on page 11.1, the Natural Heritage Impact Assessment – Recommended Plan (2008) identifies that an ESA 2007 permit will be secured prior to construction. The Report does not indicate the type of permit to be obtained.</p>
<p><i>Comments on Draft Natural Heritage Work Plan</i> We also took the opportunity to review the Draft Natural Heritage Work Plan and we would like to offer the following comments:</p> <ul style="list-style-type: none"> • Section 2.4: The strategy of avoiding areas of species at risk “where feasible” may not be considered an appropriate approach considering there are species regulated under provincial legislation in the project area. • Section 5.5: We suggest that consideration be given to include a review of potential <i>indirect</i> impacts in addition to direct impacts. Indirect impacts (e.g. trail development) are likely to occur in this type of project environment and in relation to the types of restoration work being proposed. It is important that other uses within restored and linkage areas are compatible with the natural heritage mitigation functions for which these areas have been identified. Impacts should be broken down to site design/footprint overlaps, construction phase impacts and operation phase impacts. <p>Thanks for the opportunity to provide comments.</p>	<p>Avoiding areas of species at risk is considered an appropriate approach, although it is not always achievable.</p> <p>We agree that “indirect” impacts are likely to occur. For example, the continuous recreational trail that was originally proposed along the Windsor-Essex Parkway was realigned to avoid significant wildlife habitat. Site-specific impacts, either direct or indirect, will be investigated in greater detail during preparation of the landscape plan during later design stages.</p>