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1	9-Feb-09	Karla Barboza, Ontario Ministry of Culture	1) MCL is interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process. 2) The Glossary of Terms in the EA Report should include the definitions of the following terms from the Provincial Policy Statement, 2005: *Archaeological resources, Archaeological sites, Areas of archaeological potential, Built heritage resources, Conserved, Cultural heritage landscape,* and *Cultural heritage resources.* 3) Wording should be revised to Cultural Heritage (Built Heritage Resources and Cultural Heritage landscapes) and Archaeology throughout the report to be consistent with the Provincial Statement, 2005. 4) The Detroit River has not been identified in Table 7.14 [Identified Cultural Heritage Resources in the area of continued analysis - cultural landscape units] nor in section 10.3.2. The selection of a bridge crossing location must take into account any direct or indirect impacts on a cultural heritage landscape. 5) Under Section 10.3.2 Cultural *Heritage,* there is no reference about other cultural heritage landscapes such as Brighton Beach. These should be referenced in the EA report. 6) During the Construction stage compliance monitoring is necessary to monitor the condition of the remaining cultural heritage resources to make sure that they are protected from construction activities and that they are secured and maintained. <u>Comments on TEPA Report and Technical Memo</u> 7) Recommend that text be added to Executive Summary to define heritage impact assessment. 8) Suggest that report and memo be updated to reflect that there is no definition of *built heritage features* under the Provincial Policy Statement, 2005. 9) Where is documentary research of cultural resources documented? 10) Why has the Detroit River not been identified as a cultural heritage landscape in these documents? 11) Request that mapping be provided to show the TEPA and all identified cultural heritage resources 12) Under the *Recommendations* section it should be clarified how and when a relocation plan is recommended and what the process is. 13) The report requires clarification of why a detailed Cultural Heritage Evaluation Report need only be prepared for 3 of 6 Built Heritage Resources, and when the reporting will be prepared. 14) Recommend that where adaptive reuse or relocation of BHRs cannot be found within a reasonable period of time before construction begins, MTO take timely steps to "mothball" the resource.	1) URS will continue to include the Ministry of Culture on the circulation list, as well as keep them apprised of the project. 2) All suggested terms are to be applied to the Glossary of Terms in the *Detroit River International Crossing Environmental Assessment Report (EA Report)* (December 2008). 3) Where appropriate, suggested wording revisions are to be applied to the Executive Summary, and Chapters 4, 7 and 10 of the EA Report. 4) We agree that the Detroit River is a cultural landscape, and it would have been appropriate to note this information in Table 7.14. In Section 10.3.2 the same notation should have been included, stating that the Detroit River is a cultural landscape. However, while the Detroit River is recognized as a Heritage River within the Canadian Heritage Rivers System (2001) and as an American Heritage River (1998), it lies in a largely urbanized and industrial area, and as such, aspects of its Natural Heritage were not considered for designation. The proposed crossing does not encroach on any Cultural Heritage Resources (CHRs) that are contributing elements to the heritage significance of the Detroit River. Construction of the crossing is generally sympathetic with the dominant character of the area as urbanized and industrialized, and as such it does not conflict with the reasons for designation. In addition, the piers will not be located in the river. 5) Cultural heritage landscapes not impacted by the Recommended Plan should not be included in the EA Report. For example, Brighton Beach was determined to be a significantly altered landscape, and further analysis was not conducted, thus it was not appropriate to document it in Chapter 10. Only the cultural heritage landscapes that are impacted by the Recommended Plan have been included in the EA Report. Resources that were found not to meet the Criteria for determining Cultural Heritage value or interest are included in Section 3.1 of the *Built Heritage Impact Assessment TEPA Report* (December 2008). 6) No compliance monitoring is required at the construction stage as all six BHUs identified in EA Report will either be removed or relocated prior to construction. 7) to 15) The study team has noted the comments provided on the technical reports. These will be carried forward for consideration in future design stages.

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			15) Under *Recommended Plan Analysis*, clarification is required as to which cultural heritage landscape is referred to and it is suggested that this landscape be included and described in the impact assessment.	
2	18-Feb-09	David McGregor (Facility Manager), Brighton Beach Power L.P.	16) There is no analysis or discussion on the quantity and effect of particulates and other vehicle related emissions from the plaza and the bridge on the employees and contractors located at the Brighton Beach Power Facility. Up to 40 people regularly work at the Brighton Beach Power Facility, both indoors and outdoors. 17) There is no analysis or discussion on the quantity and effect of particulates and other vehicle related emissions on the air Intake/filtration systems of our two industrial frame Gas Turbines (which consume huge amounts of fresh air when running) and our building ventilation filtration systems. 18) There is no analysis or discussion on the possible effects of construction and operational vibration on the sensitive electrical and mechanical equipment installed at the Brighton Beach Facility. 19) There is no analysis or discussion on the possible effects of construction noise and dust on the sensitive electrical and mechanical equipment installed at the Brighton Beach Power Facility. 20) There is no analysis or discussion on the possible effects of construction noise and dust on the staff and contractors working at the Brighton Beach Power Facility. 21) We assume that storm water from the bridge and plaza is fully contained and controlled and does not affect storm water control and containment or ground water levels at Brighton Beach Power. Please confirm that this is the case. 22) There are no details on how the existing two routes of Emergency Access to the Brighton Beach Power Facility will be maintained during and after the construction of the Project.	**General Statement** – Although approvals are not being sought for the plaza and crossing in this submission, information is provided to support the entire undertaking. Consultation opportunities will continue, to discuss these and other concerns that may arise, between Transport Canada and the Brighton Beach Power during future design stages. 16) The results of the air quality modelling in the Brighton Beach area were well below any employee exposure limits that the Ontario Ministry of Labour has set (10 000 µg/m^3 for coarse particulate (PM_{10}) and 3000 µg/ m^3 for finer particulate ($PM_{2.5}$)). The Ontario Ministry of Labour criteria for employee exposure limits are generally higher than the Ontario Ministry of Environment (MOE) Ambient Air Quality Criteria (AAQC) numbers (120 µg/ m^3 for coarse particulate (PM_{10}) and 30 µg/ m^3 for finer particulate ($PM_{2.5}$)) for two reasons: 1. Exposure for workers is typically assessed for an 8 to 10 hour work day, five days a week; and, 2. The worker population is assumed to be healthier than the general public. The results of the analysis show no exceedances for NOx or the other gaseous contaminants for the MOE AAQCs in the Brighton Beach area. There are some exceedances of the AAQC for PM and PM_{10}, but none for $PM_{2.5}$ in the horizon years (2015, 2025, 2035). For PM and PM_{10}, the exceedances that do occur are based on very conservative modelled conditions (i.e., worst case traffic occurs simultaneously with worst case meteorology which also occurs simultaneously with worst case background conditions). The findings of the Human Health Risk Assessment, as documented in Section 10.1.1 of the EA Report are as follows: *"Predicted concentrations of gaseous air pollutants, fine particulate matter, and Volatile Organic Compounds for the future "No-Build" and the Recommended Plan scenarios are not much different from each other and background. Thus, the Recommended Plan does not result in an increased health risk over the future "No-Build" or background scenarios. This conclusion supports the findings of the Air Quality Impact Assessment."* 17) Maximum concentrations of gaseous contaminants are below criteria or are not appreciably above background. In isolated instances concentrations of PM_{10} and PM could exceed the guidelines,

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				however, these increases in concentrations fall within the day-to-day variability of background concentrations and equipment impact is not predicted. 18) A quantitative assessment of construction vibration impacts on industrial areas was not undertaken, however impacts associated with the project are not anticipated. 19) Adverse impacts to Brighton Beach's electrical and mechanical equipment during construction are not anticipated, and best management practices for dust mitigation will be in place during construction. 20) To minimize the effects of construction noise various mitigation measures will be employed. As discussed in Section 10.1 and 10.2.1 of the EA Report, the Recommended Plan includes strategies for mitigating dust and noise impacts during construction. No adverse effects on employees or contractors are anticipated. 21) Design details will be confirmed during later design stages, with the intention of plaza and crossing runoff water being contained and discharged in such a way that does not impact storm water management and groundwater levels at the Brighton Beach property. 22) Sections 9.1.6 and 9.2.4 of the EA report provide brief descriptions of the construction staging concepts for the crossing and plaza which include a commitment that construction will be completed in such a manner as to maintain local access to businesses. While it is not possible to provide specific details as to how Emergency Access to the Brighton Beach Power Facility will be maintained during construction at the Bright Beach Power Facility at this time, these issues will be addressed through consultation with representatives of the Brighton Beach Power Facility during subsequent design stages as the details of construction staging are further refined. After construction is complete, existing accesses onto Sandwich Street will be reinstated onto the proposed local access road surrounding the plaza.
3	7-Jan-09	Drew Crinklaw (Rural Planner), Ontario Ministry of Agriculture, Food and Rural Affairs	23) OMAFRA has no comments on the EA and does not require any further involvement.	23) The study team acknowledges that OMAFRA has no comments and requires no further involvement in the study.
4	17-Feb-09	Laura Moy (Directory Staff Services Clerk), Town of Tecumseh	24) Endorsement of DRIC EA. 25) Request that Town of Tecumseh be included on steering committee overseeing detail design process. 26) Request for continued consultation on multi-use trail design during subsequent	24) The study team acknowledges the Town of Tecumseh's endorsement of the DRIC EA. 25) to 27) The Town of Tecumseh's request to be included on a potential steering committee that will oversee the detail design process, as well as for continued consultation on the details of the multi-use trail

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			phases. 27) Request for continued consultation during subsequent design phases regarding finalization of design matters related to municipal roadways and access.	system and issues related to municipal road closures, realignments and the potential requirement for new local roads are noted. There will be ongoing opportunities for consultation with municipalities during the next phases of the design. The Town's views and concerns are important to MTO and will be considered as the project moves forward. Ministry representatives will be in contact with the Town of Tecumseh in the coming months to make arrangements to discuss some of these and other items in more detail.
5	24 Feb-09	MOE Mike Parker (District Manager) Sarnia Windsor District	28) The location of the plaza is in industrial lands. Historically, these lands have offered a place for people to conduct illegal dumping of materials and potentially liquid and/or hazardous disposal. A detailed review of the site should be conducted and qualified on-site personnel, educated on visual site contamination indicators, should be present during both demolition and excavation work. 29) The Plaza is in close proximity to industrial lands that have the potential, during certain atmospheric condition, to emit odours. 30) The Detroit River Canadian Cleanup Implementation Committee (DRCC) are interested in seeking answers on how the proponent intent to work with the DRCC in achieving their goals of protecting and restoring habitat. In particular, Black Oak Woods. 31) The proponent may wish to coordinate with Windsor Salt employees and obtain information of the location and potential mitigation measures that need to be taken with respect to the location of underground salt caverns.	28) The study team appreciates the information that has been provided. As described in further detail in Chapter 7 of the EA Report, in accordance with the MTO process for evaluating contaminated property, the study team conducted a Contamination Overview Study (COS) and Preliminary Site Screening (PSS) on industrial properties located near the plaza. The PSS identified several properties with potential environmental contamination. This information has been shared with Morrison Hershfield Limited acting on behalf of Public Works and Government Services Canada (PW&GSC). Phase I investigation of the former Brighton Beach residential area is being managed by PW&GSC. Additionally, as the plaza is under federal jurisdiction, PW&GSC and their consultant will be managing any Phase II environmental investigations, excavation and demolition. The information provided by MOE has therefore been forwarded to the federal team for their consideration. 29) The investigations undertaken by the DRIC study team followed the MTO's contaminated property process for evaluating contaminated property. This investigation did not include a review of potential impacts caused by odourous emissions from local industries. The information provided by MOE has therefore been forwarded to the federal team for their consideration. 30) The study team has conducted a comprehensive assessment of the natural environment in the study area. Details regarding restoration and protection of habitats as part of the Recommended Plan are documented in the *Natural Heritage Impact Assessment, Recommended Plan Report* (December 2008). Consultation opportunities will continue through future design stages. 31) During the study team's assessment of crossing alternatives as part of the DRIC study, a significant analysis including an extensive geotechnical exploration program as well as consultation with Windsor Salt representatives was undertaken to quantify the potential impacts and limitations associated with the current and former mining operations in the crossing area.

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6	13 Feb-09	MOE Scott Abernethy, Surface Water Specialist	32) Request that baseline monitoring of water quality in study area watercourses be provided. 33) Suggestion that an in-stream water quality (environmental) monitoring program and contingency plan is necessary. 34) Concern that EA commitment that "OWRA-approved treatment system may be required" does not fully address concerns for the quality of discharged groundwater. It is suggested that the EA state that the engineering review of a dewatering discharge treatment system would best be covered by a sewage works approval with regional clearance of effluent quality requirements. 35) It is noted that grassed swales do not provide *enhanced* level protection of water quality as suggested in the EA report. 36) Chloride should be included as monitoring parameter of water quality. 37) Suggestion that a compliance monitoring plan acceptable to MOE should be required.	32) The study team has noted MOE's request for a more formal commitment to baseline monitoring during future design stages. The undertaking of baseline monitoring in watercourses is not a practice for MTO undertakings. The study team's rationale for committing to explore the need for baseline monitoring during subsequent design stages was based on the premise that the area is currently uncontrolled and as such, the provision of stormwater management measures in accordance with MOE standards is anticipated to provide a level of quality control that would avoid the potential for the Recommended Plan to negatively affect watercourses within the study area. However, as documented on page 10-27 of the EA Report, MTO remains committed to investigating the need for measurement of baseline conditions in watercourses during future design stages in consultation with the appropriate regulatory agencies. 33) With regard to environmental monitoring, MTO will require that visual monitoring of erosion and sediment control measures be undertaken by construction administration staff during the construction phase of the project to ensure that these measures are functioning effectively as documented on page 10-28 of the EA Report. However, in-stream monitoring is not a practice for MTO undertakings. 34) Dewatering needs and associated approvals will be determined during construction depending on the actual conditions encountered. 35) It is understood that grassed swales do not provide Enhanced Level Protection (Level 1) as defined in the MOE Stormwater Management Manual. The statement below, which is included in Section 10.4.9 of the EA Report (page 10-27) is not intended to suggest that grassed swales on their own provide enhanced level protection, but rather that they will be utilized in combination with stormwater management wetponds, which will provide this level of quality treatment: "*The proposed stormwater management strategy consists of utilizing flat-bottomed grassed swales in all locations for surface drainage and stormwater management wetponds to provide Enhanced Protection Level treatment, as outlined in the Ministry of the Environment (MOE) document entitled Stormwater Management Planning and Design Manual, for quality, quantity and erosion control to runoff*" 36) As stated in Section 10.4.9 of the EA report, MTO employs and recognizes the importance of best salt management practices and has developed a Salt Management Plan in accordance with *Environment Canada's Code of Practice for the Environmental Management of*

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				Road Salts (Environment Canada, 2004). MTO follows best management practices for road salt management, which are consistent with the best practices in North America. MTO partners with stakeholders using the latest technology, tools and methods to keep roads safe for winter driving and to minimize salt usage. Best management practices include advanced weather forecasting, electronic spreader equipment, the use of brines in pre-wetted salt, and varying application rates of road maintenance materials to match weather conditions. MTO will continue to investigate de-icing alternatives to control and reduce salt usage while ensuring highway safety. 37) Details of any required compliance monitoring plans will be determined at a later design stage.
7	10 Feb-09	MOE Vic Schroter (Sr. Review Engineer, Air and Noise Unit)	38) The conclusion of the vibration assessment is that since the vibration is not expected to exceed the 50 mm/s level, no structural damage is anticipated and no mitigation is proposed. *The above conclusion about the potential of structural damage appears only marginally relevant to the scope of the vibration study. Structural damage may in some cases be an issue for concern for specific construction activities such as construction blasting. However, structural damage is not a concern for vibration produced by road traffic. The potential concern with vibration from road traffic is its perception and possible annoyance. The assessment needs to address the findings and draw conclusions relating to the 0.14 mm/s criterion.* 39) The TEPA document is dated December 2008, the assessment should have been preformed in accordance with the MTO Environmental Guide for Noise (2006). *For clarity as well as assessment purposes, it is crucial to identify the policy/guideline that forms the basis of the assessment. It is recommended that the assessment be revised accordingly.* 40) The TEPA document states that stationary noise sources such as the plaza are assessed in accordance with publication NPC-205, Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban), October 1995. The TEPA document further states that the noise mitigation measures will be investigated if the project results in an excess greater than 5 dBA. There is no such provision in NPC-205 for a 5 dBA excess. 41) The TEPA document includes little regarding specific recommendations for the noise mitigation. Greater detail regarding possible mitigation is required. 42) The conclusions about the excess contained in the TEPA document and the Environmental Assessment Report are different. The TEPA document states that with a 5 m high barrier in place, the proposed project is predicted to result in no to marginal noise impact, except for one receptor. The highest	38) The vibration levels measured at the side of the road for different operations varied between 0.05 mm/sec to 0.1 mm/sec. Similar levels of vibrations can be expected with the proposed highway alignments. These levels will be further reduced at the receptor locations identified within a 25 m distance from the edge of the roadway. These locations were highlighted in the EA Report just to identify potential receptors that fall within the influence region of the highway. For most of these 138 receptors the levels would be below 0.14 mm/sec. 39) The project was initiated prior to the release of the *MTO Environmental Guide for Noise (MTO, 2006).* The former protocol *"A Protocol for Dealing With Noise Concerns During the Preparation, Review and Evaluation of Provincial Highway Environmental Assessments (MOE/MTO, 1996)"* was used for the purpose of the assessment. However, the new *MTO Environmental Guide for Noise* will be used when decisions are made on noise mitigation and as the project moves through the highway construction phase. 40) To clarify, the 5 dBA criteria was used to assess the need for noise barriers near the roads and was not intended to be used as a criteria for stationary sources. 41) The noise mitigation identified in the TEPA report is intended to be conceptual. Precise locations, aesthetic characteristics and other details will be reviewed in subsequent design phases. Mitigation will be designed to ensure optimum sound level reduction and locations that are agreeable to the public. 42) The 6 dBA exceedance after mitigation is a night-time exceedance,

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			exceedance after mitigation is 6 dBA. The EA Report conclusion omits the statement about the one receptor with a 6 dBA excess. *This difference in the conclusions (identified above) between the Environmental Assessment Report and the TEPA document is inappropriate and should be modified.* 43) The assessment found that the sound level at one of the receptors will increase by about 5 dBA (day time) and the actual level will reach about 70 dBA (day time). This is significant and should be identified. 44) The assessment should address the feasibility of mitigation at all the receptors showing excesses. 45) The proposed "follow up and monitoring" program presents several recommendations that deal with construction activities and complaints. The assessment also states that, subject to determining the effectiveness of the noise barriers, additional measures may be implemented and that consultations with communities regarding mitigation will continue during the design and construction phases of the project. *The recommendations regarding construction activities do not appear to be related to follow up and monitoring. It would seem more appropriate to move these recommendations into the section dealing with construction noise. No comments about the additional measures and consultation.*	and as such is not specifically addressed by the MTO/MOE noise protocol. A CEAA Screening Report is being prepared for federal approval by both the federal and provincial governments and this night time exceedance has been noted in that report. 43) There are four receptors along the corridor for which the daytime sound level exceeds the 65 dBA requirement of the *MTO Environmental Guide for Noise (MTO, 2006)*, including one receptor where the daytime level approaches 70 dBA. These sound levels reflect the provision of noise mitigation. These receptors were not explicitly identified in the EA Report or were not considered to be of significant concern for the following reasons: • The sound levels at two of the receptors (1-S and R20) are essentially identical to the predicted levels for the 2035 base case condition (67.4 dBA vs. 67.5 dBA base case for 1-S, and 68.7 dBA vs. 68.1 dBA base case for R20); • The sound level with mitigation at one of the receptors (3-N) is significantly less than the predicted base case noise level (67.6 dBA vs. 75.5 dBA base case); and, • The receptor with the highest daytime level of 69.8 dBA (28-S) is an industrial property and as such mitigation is not required at the property. It should be noted that the noise levels predicted as part of this study were based on a conceptual level of design, and that further analysis and design work will be completed at later stages to improve on these levels where possible. 44) As noted above, noise mitigation identified in the TEPA report is conceptual, and will be further defined in subsequent design phases. Mitigation will be designed to ensure optimum sound level reduction and locations that are agreeable to the public. Sufficient assessment has been undertaken to demonstrate that policy requirements for noise mitigation will be achieved, as a minimum. 45) The follow-up and monitoring program, including recommendations regarding construction activities, was included in a single section for ease of review and follows the standard format of the other TEPA reports.
8	13 Feb-09	MOE Jeff Markle (Hydrogeologist, Technical Support Section)	46) Evaluation of the potential impacts of the water taking should consider the guidance provided in the *Permit To Take Water (PTTW) Manual,* Ministry of the Environment, April 2005, and *Technical Guidance Document for Hydrogeological Studies in Support of Category 3 Applications for Permit to Take Water*, Ministry of the Environment, April 2008.	46) Acknowledged. It is anticipated that these two documents will be used to guide any application for a Permit to Take Water, should such a water taking be considered necessary and part of the final design. 47) to 48) The proposed works are not expected to result in significant permanent dewatering or changes in groundwater due to the limited

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			47) In some cases (i.e., tunnels), permanent dewatering may be required. The potential permanent effects of these features must be addressed. In areas where below-grade works are near Tallgrass Prairie communities, ground water monitoring wells should be installed prior to construction and water levels monitored to measure pre-construction conditions. 48) Where works are located near streams/drains having important fish habitat, the potential influence of lowering the shallow ground water on these streams should be considered. Where necessary, construction methods that will limit the impacts to the ground water levels (i.e. cutoff walls) may be necessary. 49) Any application for a Permit To Take Water must provide an assessment of the potential for the water taking to mobilize contaminates that are both on-site and adjacent to the proposed works. 50) Where the proposed discharge for any required water taking is to a stream or wetland, the potential impacts of the hydrogen sulphide on the receiver should be addressed and if necessary, treatment provided prior to discharge.	permeability of the native soils. As a result, the study team does not anticipate significant permanent effects to adjacent vegetation communities and watercourses. As expressed in the Natural Heritage Impact Assessment, the study team recognizes that further investigation may be required to more definitively establish the interaction between groundwater, surface water and the maintenance of watercourses and adjacent natural heritage areas. The study team agrees that groundwater monitoring wells should be installed and monitored in areas where below-grade works are near sensitive vegetation communities. 49) to 50) Acknowledged. It is anticipated that the completion of such an assessment would be part of any application for a Permit to Take Water, should such a water taking be considered necessary and part of the final design.
9	26 Feb-09	Canadian Transit Company (Ambassador Bridge)	51) See separate table entitled "*EA Report – Canadian Transit Company Comments and Study Team Responses (March 13, 2009)*"	51) See separate table entitled "*EA Report – Canadian Transit Company Comments and Study Team Responses (March 13, 2009)*"
10	27 July-08	Environment Canada M.A. Shaw, Environmental Assessment Officer	52) EC recommends that a more complete description be provided by the proponent on project activities potentially causing transboundary effects (e.g., water quality, air quality, wildlife, etc.) and any required mitigation/monitoring should be proposed. 53) EC recommends that more information be provided than what is included in sub-section 10.4.8 (and 10.4.2 & 10.4.4) on the potential effects of lowered groundwater level on significant vegetation communities and aquatic systems. 54) It is not clear to EC whether baseline information on water quality is currently available for any of the watercourses potentially affected by the project. 55) EC suspects that existing drainage quality would not be improved for the section of Parkway west of Huron Church Road to the Plaza location. If the MOE decides that the inclusion of additional data and analyses on water quality in the EA, to address the above considerations, is not warranted, EC recommends that a monitoring program, as suggested in the EA Report (last bullet, p. 10-40), should be implemented to confirm whether water quality in receiving watercourses would be adversely impacted by implementation of the project. EC also recommends that additional contingency measures should be proposed, and implemented, in the event that the monitoring results identify adverse water quality effects on receiving waters. 56) Effects of other potential project discharges to Canadian fisheries waters from construction and demolition activity on land and in-water (p. 10-19) should be considered in the EA, including alkaline cement leachate and concrete admixtures/additives, oils, etc.	52) Transboundary effects as a result of the undertaking were not within the scope of the *DRIC Ontario Environmental Assessment Terms of Reference (May 2004)*, thus, an assessment of such effects was not included as part of the *Environmental Assessment Report*. However, transboundary effects have been considered as part of the scope of the *CEAA Screening Report*. 53) The proposed works are not expected to result in significant permanent dewatering or changes in groundwater due to the limited permeability of the native soils. As a result, the study team does not anticipate significant permanent effects to adjacent vegetation communities and watercourses. As expressed in the Natural Heritage Impact Assessment, the study team recognizes that further investigation may be required to more definitively establish the interaction between groundwater, surface water and the maintenance of watercourses and adjacent natural heritage areas. The study team agrees that groundwater monitoring wells should be installed and monitored in areas where below-grade works are near sensitive vegetation communities. 54) to 55) See response to MOE – Surface Water (Items #32 and #33). 56) Agreed. The following information will be carried forward for future design stages: "Subsection 36(3) of the Fisheries Act prohibits the

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			57) EC recommends that the updated EA Report clearly identify whether the level of mitigation proposed for stormwater runoff from the project helps to improve, protects, or impairs water quality in Turkey Creek and its tributaries, and other local creeks/drains in the project area that discharge directly to the Detroit River." 58) Effects on other environmental and socio-economic components (e.g., vegetation communities, recreational users, etc.), due to potential project effects on surface and groundwater resources, have not been fully considered or assessed in the EA Report. 59) Reply to EC's disposition table and review comments. The primary comments included in the disposition table include: i) Request was made in July 2008 that Transport Canada (or a delegated external party) review the projections for car and truck traffic, hourly volumes, and queue lengths, and durations contained within the Level 2 operations report. The validity of the highway emissions projections rests on the reliability of the traffic projections. The intent of Environment Canada's original request was to have an agency or expert outside the project team review the traffic projections. If no external parties have reviewed these projections then our confidence in the magnitude of the projected air quality impacts is reduced. ii) EC recommends that the locations of residences and other sensitive receptors be presented for the plaza, crossing, and roadway alternatives, including the numbers of these receptors within 50 m, 100m, and 250 m of the project boundaries and rights-of-way. If there are notable differences in numbers of sensitive receptors in areas with AQ exceedances, it could change the relative health impacts of the various alternatives. iii) EC recommends that the Brighton Beach Power Plant (BBPP) contribution of emissions to air quality be evaluated for inclusion in the impacts analysis. The BBPP environmental review report (2001) projected the maximum incremental annual average NO_X concentrations to occur within one kilometre both northeast and southwest of the BBPP. The two MOE ambient monitoring locations used in the practical alternatives evaluation are located at College/South and on University Avenue which are 2 km and 4.5 km respectively from the BBPP. Furthermore, the DRIC ambient air quality data set runs from 2001 through 2005 while the BBPP was commissioned in July 2004. 70% of the DRIC ambient air quality data set was recorded before the BBPP was commissioned so its impact could only be partially reflected in the data set. Therefore it is unlikely that the MOE stations fully reflect the impacts of the BBPP in the vicinity of the three proposed plazas. An AERMOD model could have been used to project a suitably conservative background impact of BBPP emissions in the vicinity of plazas A, B & C. 60) EC and TC are discussing SARA at the Plaza.	release of a deleterious substance in water frequented by fish. Deleterious substances would include alkaline cement leachate, concrete admixtures/additives, hydrodemolition wastes, petroleum products, and other harmful materials associated with highway, plaza and bridge construction/demolition." 57) As the proposed Stormwater Management Plan to be developed during subsequent design stages, will be developed in accordance with MOE standards, it is anticipated that level of quality control that will be provided will avoid the potential for the Recommended Plan to negatively affect Turkey Creek and its tributaries. 58) Refer to Response #53 above regarding potential effects on vegetation and vegetation communities. The study team does not anticipate significant permanent effects to adjacent vegetation communities and watercourses. Regarding the potential for impacts to socio-economic factors due to project effects on surface and groundwater, significant effects are not anticipated. The collection of social data via questionnaires, comment forms, and context sensitive solution workshop undertaken as part of the study did not identify any recreational uses of the watercourses that may be influenced by project effects. Review of MOE well records indicates that there may be a few wells close to the corridor (within approximately 250 m). However, these are in locations that are now serviced by watermains as identified in mapping received from utility companies and municipalities. The vast majority of the water in the study area (all three municipalities) is supplied by *Windsor Utilities Commission* watermains. Although a detailed inventory has not been conducted, it is reasonable to assume that there are some wells in the vicinity of the receiving watercourses between the study area and the Detroit River. Even in such cases, it is understood that wells in the vicinity of the project area draw water from the underlying bedrock aquifer. With respect to the influence of the roadway run-off on this subsurface aquifer, it is noted that the proposed roadway is separated from the underlying bedrock aquifer by a layer of low permeability clayey silt to silty clay (aquitard) that, depending on the final roadway elevation, will be some 15 to 30 m thick below the roadway. On this basis, it is not anticipated that the project will result in significant impacts to potential wells that may exist in the vicinity of the project.

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			61) EC recommends that measures to mitigate adverse effects on migratory birds should be reflected in the choice and configuration of the preferred bridge design and lighting, and construction environmental specifications developed for this project.	59) i) Regarding the traffic projections that have been developed by the DRIC study team, the team acknowledges Environment Canada's concerns, but would note that the traffic projections have been developed and reviewed by traffic specialists from two industry leading consulting firms, each of which has implemented a stringent quality control process involving internal third party review of the findings. In addition an expert review team from the appropriate transportation authorities, including FHWA, MDOT, and MTO, performed a comprehensive review of the methodology, and found it acceptable. As such, the DRIC study team is confident that the traffic projections have been developed correctly, using appropriate methodologies. ii) Regarding the evaluation of the practical plaza, crossing and access road alternatives, the DRIC study team acknowledges Environment Canada's comment with regard to how information was presented in the *Practical Alternatives Evaluation Working Paper – Air Quality (May 2008)*. Given the magnitude of the receptors assessed (i.e. 2,400 in total), it was not considered practical to present all of the locations of the receptors for each of the practical crossing, plaza and access road alternatives. As such, the receptors were grouped into categories based on their proximity to the alternatives, and assessed from that perspective. This was considered appropriate, particularly on the basis that at 50 m from ROW, any changes predicted by the modelling for any of the practical alternatives (i.e., at-grade, below-grade, tunnel, the Parkway) were within a six $\mu g/m^3$ range and would typically not alter the Air Quality Index [from page 40 of the *Practical Alternatives Evaluation Working Paper – Air Quality (May 2008)*]. Further to this, the following is noted on page 10-5 of the EA Report with regard to the Recommended Plan (which emerged from the evaluation of the practical alternatives): "*Predicted concentrations of gaseous air pollutants, fine particulate matter, and Volatile Organic Compounds for the future "No-Build" and the Recommended Plan scenarios are not much different from each other and background. Thus, the Recommended Plan does not result in an increased health risk over the future "No-Build" or background scenarios*." iii) Tables presented in Chapter 2 of the TEPA report indicate variations in concentrations which include 2001-2006 data. 90^{th}

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				percentile concentrations used in the TEPA assessment for both 1 hr and 24 hr NOx concentrations are higher than the 90th percentile concentrations recorded in 2005-2006. $PM_{2.5}$ concentrations recorded at the monitoring stations are slightly higher in 2005 but drop in 2006. The maximums recorded for $PM_{2.5}$ for 2005 are lower than the maximums recorded for other years used in the assessment. For other contaminants 2005 and 2006 fall within the range of variability. Modelled worst case air quality impacts of the BBPP in the vicinities of the Plazas are worst case predictions that occur once over the modelling period and are not indicative of typical concentrations. As per a letter issued by Environment Canada to the Citizen's Alliance on August 7, 2002 in regard to the Brighton Beach Power Plant environmental review report, air impacts relating to the Brighton Beach Power project are expected to be low. SENES has reviewed the Brighton Beach project Environmental Review Report December 2001. The maximum increment relating to SO_2, CO, and the particulate matter fractions is very low relative to the applicable criteria, with maximum concentrations of 0.9 $\mu g/m^3$ for SO_2 on a 24 hour basis and 94 $\mu g/m^3$ for CO and 2 $\mu g/m^3$ of the particulate matter fractions. NOx concentrations for this report were conservative by a factor of two to determine the impacts of equipment degradation (which is not expected to occur). The concentrations presented are the maximums that occur once in five years. NOx 24 hour averages for BBPP have a maximum increment of 20 $\mu g/m^3$. Maximum NOx 24 hr concentrations at the Plaza are 138 $\mu g/m^3$ in 2025. Even if the worst case once in five year day of BBPP were to coincide with the worst case day of the TEPA, there would be no exceedance. Up to 10 hours of exceedances per year are predicted for NOx 1 hr near the Plaza with the TEPA. The maximum concentrations for one hour in five years for BBPP is 200 $\mu g/m^3$. It is extremely unlikely that the one hour maximum that would occur with the Brighton Beach project would coincide with the few hours of exceedances that are predicted to occur with the TEPA, particularly as the maximum concentrations for BBPP are more than a factor of two conservative.
				60) In terms of the permit application MTO is making under the Ontario Endangered Species Act: • The permit itself will only address impacts of the footprint for the Windsor-Essex Parkway.

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				• The impacts associated with the Plaza and Crossing will need to be addressed under SARA. • The individual species specific technical reports, which will be included in the Appendix of the permit, include survey and impact assessment documentation relative to all components of the Recommended Plan (The Winsor-Essex Parkway, inspection plaza and international crossing). 61) Agreed. Transport Canada is working with EC to develop a study on migratory birds and the effects of structure types.
11	19 Feb-09	MOE From: Gerald Diamond, Ph.D. Air Quality Analyst	62) Maps showing the modelled area and selected locations. Provide discussion on choice of locations 63) Maps indicating concentrations at regularly spaced points. 64) Include modelling results for publicly accessible areas on the right of way. 65) Provide discussion on results farther from the road, inputs should be included, more thorough discussion should be provided on this and give examples of their comparisons. 66) Include one or two examples of a 5 year model run to validate decision to use one-year. No change to document is required. 67) Separate modelling results of the project impacts form the background so they can be evaluated on their own merits. 68) Provide discussion on how sanding and salting may effect downwind concentrations and note if model has included this effect. 69) Provide rational for "Page 36 of AQ report" that suggests in the event that there is no additional border crossing traffic on the 401 through Windsor will not increase in the period 2015 to 2025. 70) Model concentrations along the existing truck route and effects should be contrasted with the status quo situation for target years. 71) Discuss sensitivity of the model to (significantly) increased wait times at the border. 72) Concern is that modelled substances do not appear to change significantly overtime. Provide more discussion on sensitive receptors and be clear in the report if there will be offsetting decreases elsewhere because the movement of some traffic to the new route. 73) Locations of exceedences (for NOx) should be indicated on a map and would it be possible to alter protocols at the plaza to reduce or eliminate these peaks in conditions where they are likely to occur? 74) Include discussion on how frequently the particulate concentrations reaches the 30ug/ m^3 level. It is not clear where this level occurs as it does not appear on	**General Statement** – These comments will be addressed more fully in a "bridging document" currently being prepared by SENES. 62) A map of the sample sensitive receptors was included in the TEPA report under Figure 3.3, however, more detailed maps will be provided in bridging document. 63) These are being developed. Preliminary maps have been provided to MOE for review. 64) Modelling results for selected locations on tunnels was provided in Section 4.2.2 of the TEPA report. A more focussed discussion on concentrations within the usable spaces of the ROW will be included in the bridging document. 65) Appendix C of the TEPA report contains some sample calculations. Representative input files and more examples of input calculations will be provided in the bridging document. 66) Appendix F of the TEPA report contains sample results 67) A discussion of the importance of background will be included in the bridging document. 68) The impacts of sanding and salting are considered by the use of the 90^{th} percentile background. 69) The low/negative growth in the Highway 3/Huron Church Road corridor predicted by the traffic model under the no-build scenario between 2015 and 2025 is generally attributable to anticipated diversion of traffic to other routes as this corridor reaches capacity after 2015. Clarification of this issue is provided in the "bridging document" currently being prepared by SENES. 70) A discussion on areas where traffic is removed from circulation will be discussed in the bridging document. 71) The modelling was conducted to consider peak traffic flow and typical wait times associated with peak traffic flow. Longer wait times at the border would only be expected to occur on

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			the list of sensitive receptors.	an extremely infrequent basis. If longer wait times were to occur mechanisms could be implemented at the border crossing to reduce the impacts of idling. 72) A more detailed discussion of potential impacts outside the corridor will be included through a sample model scenario of traffic north of EC Row. 73) Maps of NO_x exceedances will be included in the bridging document. 74) A discussion on the sensitivity of the model to conservative inputs such as use 90th percentile will be included in the Bridging Document.
12	27 Feb-09	Health Canada	75) Toxicological reference values (TRVs) rationale for Chemicals of Potential Concern (COPCs). Benzene is considered as a COPC, as indicated in table 4.1, however, the rationale for its TRV was not provided. Please provide a rationale for the TRV used in the risk estimation of this compound. 76) Based on a one in a million excess cancer risk, HC calculated a 0.0022 (mg/ m^3)-1 unit of risk for inhalation exposure, instead of the reported value of 0.022 (mg/ m^3)-1 provided in table 4.1. Please clarify the assumptions that were used in the HHRA to reach the reported value. 77) The TRV used for 1,3-butadiene presented in table 4.1 seems to be not in the referenced document *(United States Environmental Protection Agency (U.S. EPA) 1998. National Centre for Environmental Assessment – Health Risk Assessment of 1,3 Butadiene. External Draft)*. Please clarify if this document is the correct reference. 78) The one hour exposure TRV for sulphur dioxide (SO2) is reported as 350 ug/ m^3 in table 4.2. However, the referenced document *(World Health Organization (WHO) 2005. Air Quality Guidelines Global Update. EUR/05/5046029)* does not seem to report such a value. Please clarify the location of this value. 79) Deficiencies were noted in the risk analysis for fine particulate matter's (PM2.5). Two values (7ug/ m^3 and 15 ug/ m^3) have been considered as health reference concentration level for the HHRA (page 28). The references[3,4] respectively used for these values are outdated. It is suggested that the reference value for PM2.5 provided in Judek et al. (2004)[5] be considered instead as it provides a more appropriate analysis of the health risk associated with exposure to PM. *Recent scientific evidence, CCME (2000)[6] indicates that there is no apparent lower threshold for the effects of PM on human health. Therefore, HC suggests that the HHRA consider PM2.5 as a non-threshold substance in order to more adequately characterize the potential health risk due to exposure to PM.* 80) *<From CEAA Report>* In addition to the mitigation measures and/or best management practices mentioned under air quality in Table 6.1 of the report,	75) The benzene rationale was inadvertently left out of the document. Both the inhalation reference concentration and oral reference dose were taken from the U.S. EPA IRIS database. The oral slope factor was taken from Health Canada, and is based upon the Canadian Drinking Water Guideline values. Similarly the inhalation unit risk was taken from Health Canada, and is based upon human occupational studies. Additional information with regard to the rationale for the benzene TRV will be provided as part of the response to comments raised by the MOE Standards Development Branch. 76) This comment pertains to the unit risk for acetaldehyde. HC is correct in that the unit risk is 0.0022 (mg/ m^3)-1 and not 0.022 (mg/ m^3)-1 as reported in Table 4.1. This is a typographical error; however all the calculations were carried out with the correct unit risk value of 0.0022 (mg/ m^3)-1. Clarification with regard to the assumptions used in the HHRA will be provided as part of the response to comments raised by the MOE Standards Development Branch. 77) The TRV for butadiene is based on extrapolation of the rodent based unit cancer risks for inhalation exposure provided in Section 9.5 of the document which range from 4 x 10-3/ppm to 0.29/ppm. The average of these values was approximately 0.097/ppm, which when adjusted to mg/ m^3 using a conversion factor of 1 ppm = 2.25 mg/ m^3 and extrapolation to a mg/kgd basis using an inhalation rate of 15.8 mg/ m^3 and a body weight of 70.7 results in an oral slope factor of approximately 1.8 per mg/kg d. 78) The one hour exposure for SO_2 has been scaled from the 10 minute exposure level of 500 µg/ m^3 as provided by the WHO document. The scaling factor is based on an equation provided by the Ontario Ministry of the Environment (2005) which is entitled Air dispersion Modelling Guideline for Ontario. The equation is $C_0 = C_1 \times F$ where $F = (t_1/t_0)^n$ where C_0 is the concentration at averaging time t_0 and C_1 is the averaging time at C_1 and n is a power exponent in this case 0.42. 79) The reference to the use of 7 µg/m^3 as a threshold level for $PM_{2.5}$

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			proper maintenance calendar for truck and other equipment with diesel engines, and the use of electrical or propane powered equipment as often as possible are also suggested mitigation measures to be considered during the construction phase of the project.	comes from a report published by the California Environmental Protection Agency Air Resources Board in 2008 and thus is a very current reference. The report was endorsed by a number of scientific advisors including Dr. Jonathan Levy, Dr. Barst Ostro and Dr. Arden Pope, all well known scientists in the fine particulate area. In addition, the information on the document was peer reviewed by 12 experts including scientists such ad Dr. Doug Dockery, Dr. Kaz Ito, Dr. Morton Lippmann, Dr. Daniel Krewski and others. Thus the use of a threshold of 7 µg/m^3 is supported by these experts and they indicate that this level is the best information due to *the lack of long-term data at low ambient concentrations of* $PM_{2.5}$. The Judeck et al paper (2004) referred to by the reviewer relies on the concentration response functions that has been accepted for publication but has not yet been published. Moreover, the source of the CRFs appears to be focussed on nitrogen dioxide and not fine particulate matter. Therefore the use of the threshold levels provided in CARB 2008 represents the best currently published information and is endorsed by experts in the fine particulate matter area. The threshold level of 15 µg/m^3 may be dated but was provided for context since it was related to information consulted in the development of the Canada Wide Standard. 80) Comment will be considered during finalization of CEAA Report.
13	26 Feb-09	ORC	81) Disposition of the property located at 3400 Huron Church Road was not included in the description of the undertaking in the Individual EA study. 82) An archaeological assessment of the undisturbed portions of the property and a cultural heritage evaluation of the property are required prior to disposition of the property located at 3400 Huron Church Road.	81) to 82) We agree that the displacement of the Windsor Public Health Laboratory could have been documented more explicitly in the EA Report, and agree that ongoing consultation is required to facilitate the relocation of the lab. With regard to archaeological potential, permission to enter the property at 3400 Huron Church Road has been received, and the study team is planning to conduct archaeological investigations in the coming months. With regard to our Built Heritage assessment, based on visual observations of the structure (3400 Huron Church Road) undertaken by both Archaeological Services Inc. and URS Canada as part of this study, it was determined that further consideration as a Built Heritage Resource was not necessary. Based on the above, the requirements of the MEI Class EA Process have been satisfied.
14	26 Feb-09	Windsor Crossing Outlet Mall (BLG)	83) Lawyer's feel that their client's (Windsor Outlet Mall) proposal that was presented on Jan.22 2009 containing detailed information on signage and traffic turnarounds, which were expertly designed to attempt to mitigate the losses that will be suffered as a result of the preferred design, were not addressed.	83) The study team has reviewed the plan that was provided by the Windsor Crossing Outlet Mall on Jan.22, 2009. While this plan does not comply with MTO signage policies, MTO will continue to work with the Windsor Outlet Crossing Mall to develop a viable signing strategy that meets MTO's standards. The turnarounds as suggested

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				are not being adopted as the existing access to the mall is adequate and is being maintained.
15	27 Feb-09	St. Clair College	84) Concern for aesthetic and property impact of Geraedts Drive intersection and multi-use trail overpass. Request that final design of these elements be conditional upon consultation with and approval by St. Clair College. 85) Require clarification on temporary closure and realignment of Geraedts Drive as the college states that it is a privately owned road. 86) Require further clarification of access impacts and mitigation during construction. 87) Require more details on the effects to air quality and monitoring/mitigation during and after construction. It should be a condition that the minimum air quality levels prescribed by the Province of Ontario shall be maintained at all times and that the final design shall improve air quality above current levels at the Windsor Essex Parkway location and for the multi-use trail, adjacent to the College South Campus 88) Concern for potential effects on the groundwater and storm water on St. Clair College property. It should be a condition that any construction will not adversely affect groundwater and storm water management and quality for the College South Campus.	84) The study team will consult with St. Clair College representatives as the Geraedts Drive intersection is further refined during later design stages. 85) MTO recognizes that Geraedts Drive is privately owned and not an open public road. A construction staging plan will be developed during subsequent design stages. St. Clair College will be consulted during the development of the staging plan to discuss the need for and timing of any temporary closure and/or realignment of Geraedts Drive. Should any construction activity on Geraedts Drive be required outside of the proposed right-of-way, it will be completed only after the appropriate permissions to enter have been received from the land owner. 86) The intent of the construction staging strategy to be developed during subsequent design stages will be to maintain access for local residents, businesses, and other facilities, such as St. Clair College, to the maximum extent possible. Where it is not possible to maintain the existing access temporarily, suitable alternative access to the College will be provided, in consultation with the College. 87) In general, it is anticipated that air quality impacts during construction will be limited to transient episodes of particulate matter (PM) and NOx, with exceedences driven by ambient conditions. As with any construction site, these emissions will be of relatively short duration and are unlikely to have any long-term effect on the surrounding area. The study team has developed mitigation measures to mitigate the effects of construction activities on local air quality conditions. These measures are documented in Section 10.1 of the EA Report. After construction, air quality conditions are primarily influenced by background concentrations and it is not possible to guarantee that criteria are met. As noted in Section 10.1 of the EA Report: *"the air quality assessment shows that potential impacts from The Windsor-Essex Parkway would be small relative to background concentrations and limited to areas in close proximity to the road. The greatest benefit of The Windsor-Essex Parkway will be from the reduction in truck idling along the traffic corridor. Overall the implementation of The Windsor-Essex Parkway will mitigate future transportation related air quality impacts within the study area over the future "No-Build" alternative because it provides a wide right-of-way and improvements in traffic flow, by eliminating stop-and-go conditions caused by the traffic signals that exist in the Highway 3 /*

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				Huron Church Road corridor today". 88) During later design stages, a further assessment of surface water and groundwater conditions may be completed, which will facilitate the development of a detailed stormwater management plan and groundwater protection plan. It will be the intent of these plans to minimize the potential for impacts to adjacent properties from the perspective of stormwater quantity and quality, as well as impacts to groundwater levels.
16		Ministry of Tourism	<u>Signage:</u> 89) The Ministry of Tourism is repeating a request made earlier that sufficient space be provided on the new access road linking the 401 to the U.S. border (The Windsor-Essex Parkway) that would allow for erection of Tourism Oriented Directional Signage (TODS) for local tourism attractions and for the Duty Free Shops located in the plaza. *Helping visitors to find destinations and attractions is an important part of the tourism experience. The recent report of the Ontario Tourism Competitiveness Study chaired by MPP Greg Sorbara raised signage and way - finding as issues for the tourism industry. According to Mr. Sorbara, "Ontario needs better signage to help make the province more welcoming, safe and comfortable". The government is committed to improving the delivery of our highway signage programs to ensure that tourists can find their way to their destinations safely and easily.* <u>Ontario Tourism Information Centres (OTICS):</u> 90) The Ontario Tourism Marketing Partnership Corporation (OTMPC), an agency of the Ministry of Tourism, is seeking assurances that discussions concerning amenities along the new border crossing configuration take into consideration the Travel Information Centre/Service. The OTMPC have had earlier discussions with MTO and others regarding the relocation of one of the two OTICS in Windsor to accommodate the new border crossing; however no specific location was identified at that time. Preliminary discussions focused on potential sites along the new 401 extension close to the new bridge crossing that could accommodate a Centre as opposed to being directly on the bridge plaza. To the best of our knowledge, there have been no further discussions on the matter. Strategically the OTMPC would like to access both the visitor entering and exiting the border crossing for maximum coverage. In this respect, any site that is being considered should ensure that there is capacity for the traveller to access the site directly from the highway and return onto the highway with limited re-routing (e.g. egress). *Given that presently there are two OTICS in Windsor - one servicing the tunnel and one servicing the Ambassador bridge, it would be ideal if a location could be found that covers both the Ambassador bridge and new crossing so that the Centre that serves the present bridge could be relocated to where it could serve both the old bridge and new crossing.*	89) The Ministry of Transportation will consult with the Ministry of Tourism on this issue during later design stages. The ability to allow TODS signage within the Windsor-Essex Parkway corridor will be limited to locations that satisfy the Ministry of Transportation's signage and safety standards as well as the eligibility requirements for the TODS program. 90) The Ministry of Transportation consult with the Ministry of Tourism during later design stages to discuss potential locations for a new OTIC that could service traffic using both the existing and new crossings.
17		Citizens Environment Alliance	<u>TOR Section:</u>	91) to 98) The comments submitted suggest that the study team was

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			91) Page 5 of the DRIC Terms of Reference states that "MTO, as a member of the Canada-U.S.-Ontario-Michigan Border Transportation Partnership will undertake this OEA based on the legislative requirements, policies, procedures and protocols that are in place at the time the work is done." 92) Page 39 of the DRIC TOR includes (Table 3.4 – Criteria For Evaluating Illustrative and Practical Alternatives), 26) Air Pollutants and GHG emissions. 93) The terms of reference require the MTO to assess greenhouse gas emissions (GHG) within the DRIC EA based upon, among other commitments, "legislative requirements, policies, procedures and protocols…" Presumably these would include the purpose of the Ontario Environmental Assessment Act, the Ministry of Transportation's Statement of Environmental Values as well as policies such as Ontario's Climate Change Action Plan and the United Nations Framework Convention on Climate Change (UNFCCC), which Canada is a party to. <u>GHG Assessment within the DRIC EA:</u> 94) Greenhouse gas emissions are not comprehensively assessed within the DRIC EA based upon the TOR requirements. Indeed the emission of greenhouse gasses and their environmental impacts are downplayed in the EA. 95) The assessment of other GHGs as a result of the preferred alternative was not undertaken. 96) The paucity of assessment of GHG emissions within the EA is perhaps only matched by erroneous conclusions and inaccurate technical comparisons. 97) The comparison of the preferred alternative's CO2 emissions, in section 4.4.2, with overall national emissions seems to be a gratuitous attempt to downplay the emissions' environmental impact since the context is not exclusively national emissions in Canada, but provincial and sectoral emissions. An increase in emissions of GHGs as a result of the project is counter to stated policies, procedures and protocols from both levels of government despite poorly formulated technical comparisons. 98) Mitigation of GHGs have not been considered given the minimal assessment and erroneous conclusions about GHG emissions in the EA.	required through the EA TOR to undertake an analysis of greenhouse gas emissions, and that the analysis which was completed was not comprehensive based on the TOR requirements. As discussed in the *Air Quality Impact Assessment – Technically and Environmental Preferred Alternative (December 2008)*, the air quality assessment includes consideration of 14 of the most common contaminants from transportation. The assessment of greenhouse gases was completed through consideration of the impacts from carbon dioxide (CO_2), an indicator contaminant for GHG's. CO_2 is a suitable indicator contaminant as Environment Canada and other sources show that the other GHG emissions (CH_4 and N_2O) represent only an additional 0.02% contribution relative to CO_2. CO_2 is generally not associated with health or short-term impacts that are typically considered with modelling. As such, the roadway was not specifically modelled for CO_2 impacts but instead, the annual contribution of the transportation network was considered. According to the Emission Database for Global Atmospheric Research, 584,578 kilotonnes of CO_2 (1 kilotonne = 1,000 tonnes or 1,000,000 kg) were released in Canada in the year 2000, of which 121,411 kilotonnes were from road transportation. The increase in traffic volumes associated with the TEPA is expected to add approximately 200 kilotonnes to Canada's emissions by 2035 (assuming 2000 levels remain constant until 2035), or 0.04% of the total emissions. It should be noted that the introduction of control technologies and a reduction of idling with the Recommended Plan will improve CO_2 reductions. In addition, while the traffic impacts of the Recommended Plan appear to increase GHG emissions by a minor percentage, GHG emissions in other areas will be reduced as traffic is diverted from these other areas. As such, overall GHG emissions in the airshed are not anticipated to be affected by the Recommended Plan. Overall, the TEPA is not expected to have a significant contribution to global warming potential from CO_2 emissions.
18		Southwest Detroit Environmental Vision	99) The diversion of truck traffic will disburse diesel emissions from the more populated area of Windsor, but the overall emissions will continue to increase and the issue must be addresses with technologies and programs available to us. 100) Windsor will continue to experience the damaging diesel emissions from the more than 10,000 trucks crossing our border – and the significant negative impacts to respiratory, cardiac, and overall health. These impacts must be addressed at the source, not only through disbursement. 101) More measures need to be taken by Canada as well as the US. to address the	99) to 101) These comments generally deal with measures that are beyond the scope of the DRIC EA study, such as control technologies on vehicles, anti-idling laws, etc. Regulatory initiatives and the increased focus globally on decreasing emissions will drive the technologies required to implement these changes. However, the following points are noted in relation to the other comments provided. In addition to the new access road, plaza and crossing and as outlined in Chapter 5.1 of the EA Report, border delay reduction measures

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			increased diesel emissions that we will experience over time with the increase in border truck traffic, which is part of the justification for a second bridge, including the following: • Retrofitting of area truck fleets with diesel emissions reduction technologies, especially those fleets that commute daily across the border • Implement border delay reduction measures • Implement anti-idling strategies for border operations • Enforce anti-idling in Windsor • Use best in class construction equipment and procedures to reduce emissions • Conduct joint air quality studies for diesel particulate before, during, and ongoing to monitor long term impacts and improvements with the project We also advocate for the following to reduce the impacts to Overall air quality: • Provide state of art infrastructure for non-motorized transportation on the bridge and plazas end-to-end. • Incorporate alternative energy (wind, solar, water) in the bridge design in order to decrease the energy use footprint, and the impact on the climate.	will be employed to assist in improving overall operations of the transportation network. These measures will further assist in reducing diesel emissions by improving traffic flow and reducing border traffic delays. As outlined in the response to the issues raised by St. Clair College, it is anticipated that air quality impacts during construction will be limited to transient episodes of particulate matter (PM) and NOx. As with any construction site, these emissions will be of relatively short duration and are unlikely to have any long-term effect on the surrounding area. The study team has developed mitigation measures to mitigate the effects of construction activities on local air quality conditions. These measures are documented in Section 10.1 of the EA Report. After construction, air quality conditions are primarily influenced by background concentrations and it is impossible to guarantee that criteria are met. As noted in Section 10.1 of the EA Report: *"the air quality assessment shows that potential impacts from The Windsor-Essex Parkway would be small relative to background concentrations and limited to areas in close proximity to the road. The greatest benefit of The Windsor-Essex Parkway will be from the reduction in truck idling along the traffic corridor. Overall the implementation of The Windsor-Essex Parkway will mitigate future transportation related air quality impacts within the study area over the future "No-Build" alternative because it provides a wide right-of-way and improvements in traffic flow, by eliminating stop-and-go conditions caused by the traffic signals that exist in the Highway 3 / Huron Church Road corridor today".* The international bridge will include a sidewalk on one side of the structure.
19		ERCA	102) With respect to natural hazard matters, specifically flooding, erosion, stormwater quality and quantity management, our review of the documents confirm that these issues have been given proper consideration. 103) We are looking forward to continued involvement in attempting to address concerns related to the feasibility and design of culvert crossings that simultaneously satisfy both natural heritage and natural hazard issues. 104) There are still final design details to be addressed specific to release points and infrastructure at inland waterway locations and for proposed outlets into the Detroit River. Specifically, detailed design will need to address velocity dampening and protection from long-term effects of erosion and any proposed outfall infrastructure along the Detroit River shoreline will need to give consideration to both the Federal Species at Risk Act (SARA) and the Provincial Endangered Species Act (ESA).	102) No action required. 103) Consultation with ERCA will continue during subsequent design stages. 104) Specific details for the outlet structures, such as velocity dampeners and erosion/sediment protection will be developed during subsequent design stages. 105) Specific details with regard to maintenance of stormwater management facilities within the ROW will be developed during subsequent design stages. 106) As expressed in the Natural Heritage Impact Assessment, the study team recognizes that further investigation will be required to more definitively establish the interaction between groundwater, surface

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			105) There will also be a need to address through mechanical means, an attempt at polishing stormwater to accepted Provincial standards at locations both inland and possibly at the ultimate receiving waterbody (i.e. the Detroit River). A proposed mechanical intervention will necessitate the removal of stored particulate matter continuously and at regular maintenance intervals. Contaminants associated with this polishing process will also need to be given consideration for ultimate removal and disposal as a regular maintenance of these facilities. The polishing of stormwater through natural processes such as plant uptake, converts some contaminants, however ultimately some management of these facilities will still need to be undertaken, regardless of the facility design. Stormwater management facilities should be constructed in a fashion sensitive to the natural environment. 106) The relationship between surface water management, groundwater conditions and natural features needs further study during subsequent design stages to allow for a refinement in the ultimate design of infrastructure associated with the overall Recommended Plan. 107) Final design and positioning of culverts, watercourse realignments and drainage systems will need to account for extreme climatic events that have become typica1 of this region to maintain safe traffic flow during and after significant rainfall events. 108) The EA process has adequately considered relevant issues and legislative requirements with respect to natural heritage. Data collection and analysis with respect to natural heritage has been comprehensive and technically sound and the proposed mitigation recommendations, in concept, appear acceptable. Further analysis relating to site-specifics is pending and will take place in the detail design stage of the process. We look forward to future consultation with the Ontario Ministry of Natural Resources and the study team to adequately address any outstanding natural heritage issues which may arise during the final detailed design process.	water and the maintenance of watercourses and adjacent natural heritage areas. 107) In consultation with ERCA, it was established that the regional storm for the study area is equivalent to the 100 year storm event. All storm sewer systems for freeway and all culvert crossings of the freeway will be sized to convey the 100-year storm with no impacts to the existing upstream floodlines. 108) Comment noted. Further design details related to natural heritage will be worked out during later design stages in consultation with applicable regulatory agencies.
20	13 Feb-09 25 Feb-09	Al-Hijra Mosque & School	109) The current plans show the existing facility as only a Mosque. It should be revised to reflect the actual current operations as a private elementary school, a Mosque, and a community centre. 110) Concern for air quality and noise impacts to the Al-Hijra community due to the realigned and newly proposed roadways in the vicinity of the Al-Hijra Mosque and School. 111) Concern for the physical safety of the school children and community members due to the possibility of errant vehicles from proposed roadways adjacent to the eastern portion of the property. 112) Future expansion projects (high school, daycare facility, gym, etc.) will be precluded due the presence of proposed roadways adjacent to the property. 113) Concern that due to potential increased risks, parents may elect to remove their	109) The study team acknowledges that the facility identified in the study documentation as “Al-Hijra Mosque” is also a school and a community centre. Please note that this will not alter the status of the facility as an institution within the assessment and evaluation. 110) The study team notes that traffic that would have been using the original alignment of Howard Avenue adjacent to the Al-Hijra Mosque & School under the “no-build” scenario is simply being moved to the Howard Avenue Diversion in the Recommended Plan – on the opposite side of the Mosque property. The original alignment of Howard Avenue adjacent to the Al-Hijra Mosque & School will become a cul-de-sac. The volume of traffic using the connection between the Howard Avenue Diversion and Howard Avenue on the north side of the property will be significantly lower than traffic

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			children from the Al-Hijra schools resulting in reduced revenues and therefore jeopardizing the school operations and the services of the community centre. 114) Suggest possible alternatives to the Recommended Plan in this area to address concerns, including: Realignment of the Howard Avenue Diversion farther easterly, adjacent to existing Outer Drive, to allow an adequate buffer for the Al-Hijra property; Or, installation of a barrier wall system to address safety and noise concerns along the entire eastern boundary of the property with extension to the north and south. 115) Request that MTO agree to compensation acceptable to Al-Hijra Mosque & School, alternatives of which include: Granting ownership of the property locked between the proposed highway and Al-Hijra property to the Al-Hijra community for future use as a park, field, parking lot, etc; Compensation of Al-Hijra for already incurred site development costs along the existing Howard Avenue; Provision of all future construction activities for Al-Hijra to allow for reasonable access and parking; And, Compensation of Al-Hijra to allow for the purchase of adjacent properties to the north to accommodate future expansion plans.	volumes on the Howard Avenue Diversion. As such, there will not be an appreciable difference in the noise levels and air quality experienced at the Al-Hijra Mosque & School between the Recommended Plan configuration and the "no-build" scenario. 111) Proposed roadways in the vicinity of the Al-Hijra Mosque & School will be designed and constructed to meet or exceed applicable provincial and highway design and roadside safety standards including sight lines so as to provide a safe environment for the travelling public and adjacent properties. The need for roadside protection (guiderail, etc.) will be examined further during future design phases. 112) No portion of the Al-Hijra Mosque & School property is required to construct the Recommended Plan. Setbacks for future buildings and/or structures from the adjacent road rights-of-way will be determined in consultation with the applicable municipality and/or road authorities. 113) The study team can not comment on the possibility of reduced enrolment at the Al-Hijra Mosque & School due to perceived effects of the proposed infrastructure. 114) The location of the proposed Howard Avenue Diversion was developed considering numerous factors including roadway geometrics, proximity to surrounding residences, businesses and institutions and compatibility with the proposed Highway 3/ Windsor-Essex Parkway interchange. Lands proposed to be utilized by the connector road between Howard Avenue and the Howard Avenue Diversion were previously envisioned for road purposes as part of a former draft plan of subdivision. The need for roadside protection (guiderail, etc.) will be examined further during future design phases. 115) No portion of the Al-Hijra Mosque & School property is required to construct the Recommended Plan. Setbacks for future buildings and/or structures from the adjacent road rights-of-way will be determined in consultation with the applicable municipality and/or road authorities. The proposed works do not alter the property's frontage on existing Howard Avenue, nor do they affect the existing access configuration to the property.
21	24 Feb-09	County of Essex	116) Essex County Council supports the Technical and Environmentally Preferred Alternative for the Detroit River International Crossing project as submitted to the Ministry of the Environment for approval in December 2008. 117) Essex County Council seek commitment from the Ministry of Transportation to continue to fully engage the County of Essex in the DRIC project and	116) The study team acknowledges Essex County's support of the DRIC EA. 117) Essex County's request to remain fully engaged in the development of mitigation strategies through the detail design and approval stages is

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			specifically in the development of all mitigation strategies through the project's Detailed Design and Approval stages.	noted. Although details have not yet been developed, there will be ongoing opportunities for consultation with municipalities during the next phases of the design. The County's views and concerns are important to MTO and will be considered as the project moves forward. Ministry representatives will be in contact with Essex County to discuss some of these and other items in more detail.
22	4 Mar-09	Hydro One Networks Inc.	118) Concerned that the EA has not adequately defined the effects of the undertaking on Hydro One nor has it provided a meaningful commitment to mitigate those effects. The Recommended Plan will occupy land reserved for future expansion of the Keith Transformer Station. Request that the EA address the direct effects on the existing facilities as well as the effects on future development of the Keith Site.	118) Potential impacts to Hydro One's future expansion plans were considered in the EA through the evaluation of alternatives. Future negotiations with Hydro One cannot occur until more detail with regard to the plaza configuration is determined. Such discussions will occur with Transport Canada.
23	11 Mar-09	CBSA	119) *Plaza B1 page xi last paragraph*: while it is true that plaza B1 provides substantial improvement of border processing capabilities over the current conditions, it is also true that all alternatives presented similar improvements. 120) *Transportation network, page 4-32 5th paragraph*: the distance between the bridge plaza and the Malden Rd inspection facility is closer to 4.5 km. 121) *Border processing, page 5-4 2nd paragraph*: The capacity of the PIL is more importantly a function of the ability to process the referrals, from the primary inspection, at secondary. 122) *Table 5-3 footnote 2, Number of Primary Inspection Lanes*: 6 more lanes have been built but are completely dysfunctional and will remain unusable for a lengthy period until significant remedies are made. 123) *Border processing, page 5-4 last paragraph*: the attempts at negotiating pre-clearance have since failed and while it is true that the proportion of commercial vehicles referred to secondary is expected to decrease, the complexity of the examinations is expected to increase putting a commensurate pressure on examination facilities.	119) Acknowledged. All plaza alternatives were developed to accommodate substantial improvements in processing capabilities. As such this was not a decision-relevant factor in the evaluation of plaza alternatives. 120) It is agreed that the total travel distance from the Ambassador Bridge Canadian plaza to the secondary commercial vehicle inspection facility is greater than 2 km. The figure of 2 km was intended to represent the distance from the plaza to Huron Church Road/Malden Road. 121) Acknowledged. The statement in the EA Report "*There is a high degree of variability in processing times depending on the circumstances of the driver and/or passenger(s) and the nature of the contents of the goods within the vehicle.*" was intended to broadly capture the influences on border processing, and would include the ability to process referrals from primary inspection, at secondary as CBSA has suggested. 122) Comment noted. The DRIC study team appreciates this update. 123) The DRIC study team appreciates the update in recent developments regarding pre-clearance and the anticipated increased complexity of secondary inspection examinations. This information will be forwarded to the federal team for their consideration as they further develop the plaza design.
24	11 Mar-09	DFO	<u>Environmental Assessment Report W.O. 04-33-002</u> 124) Section 3.6 First Nations, pp. 3-23: Please confirm that all of the First Nation communities initially contacted are (8 total) satisfied with their level of engagement. Note that a non-response does not necessarily mean that they are	**General Note:** For ease of reference, the term "subsequent documents" when used in this section of the table refers to documents that have been prepared as part of the DRIC EA study but were completed subsequent to the document on which the comment(s) has been made by DFO. Depending on the comment, these documents could include one or more

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			not interested in participating at some point in the process. 125) Section 7 Watercourses and Fish Habitat, pp. 7-57: Cahill Drain: there is reference to 2 sections of the drain both described as the "upstream reach" with 'types' (classes under drain classification system) being F and E respectively. Please clarify because it's our understanding that the upper reach is an F while the lower reach is an E. • Related, and consistent through this document regarding drain classes. Class E drains are permanent flowing, warm water with sensitive fish species or communities present which are not limited to sportfish; in addition it's been more than 10 years since last full maintenance. 126) Section 10.4.4, Fish and Fish Habitat, pp. 10-21: In the Conclusions section, include a discussion that a Letter of Intent and Application for Works will be completed. <u>Draft Heritage Work Plan March 2006, V2</u> 127) Section 1.1.2 Watercourse and Fisheries, pp. 2: Although we understand that the watercourses in this area have been disturbed by past development and activities there are still healthy and productive elements as well and we would like to see this section more balanced in that regard. Outline the positive elements of these systems in addition to the current impacts with a focus on long term restoration and increase in productivity. The current areas of concern can be used to shape the goals for long term enhancement/restoration and protection. 128) Section 1.1.6 Species at Risk, pp. 4: Clarify the differences between the federal and provincial Acts (SARA and ESA). Outline clearly how each piece of legislation relates to the flora and fauna in the project area. As its written now the section is too general in nature and doesn't support any conclusions on the likelihood of effect on SAR species. This document is from March 2006 and as such, the ESA was not in effect. This section needs to be rewritten to be inclusive of the ESA. Similarly, Table 1: Federal and Provincial Status on SAR should be reflective of both SAR and ESA considering this project is undergoing a simultaneous, coordinated federal and provincial review. 129) Section 2.2, Task 2 Data Collection, Table 3, pp. 11-12: This table should also include DFO SARA Mapping and the DFO/ERCA Drains Mapping/Drain Classification data base. 130) Section 5.5, Task 5 Conduct Impact Assessment, Table 5, pp. 20: In the row Changes to Water Temperature, add Thermal Radiation with the possible protection measure being shading, buffers, minimizing concrete/asphalt or stormwater management measures.	of the following: • Draft Practical Alternatives Evaluation Working Paper – Natural Heritage (April 2008); • Natural Heritage Assessment - The Recommended Plan (December 2008); and • Environmental Assessment Report – December 2008. Furthermore, the term "future documentation" refers to documents that will be prepared during future design stages and includes the Letter of Intent. 124) As noted in Section 3.6 of the EA Report, only Walpole Island First Nation has demonstrated a desire to actively participate in the study, and the study team has continued to consult directly with Walpole Island First Nation. Each First Nation group identified in Section 3.6 of the EA Report has been invited to comment on study materials at each key milestone of the study, including the submission of the EA Report. Outreach to First Nation communities is continuing throughout the OEAA review process. 125) DFO's understanding of the classification of these reaches of Cahill Drain is correct. This will be carried forward for consideration in future design stages and any future documentation. 126) The preparation of a Letter of Intent and Application for Works during future design stages is noted in the first sentence of the "*Conclusions*" subsection of Section 10.4.4. 127) This work plan was completed in March 2006 and field work was conducted later in the year. During field work it was found that positive traits were severely limited in these watercourses. Resident fish were absent or nearly absent from the majority of watercourses, likely due to poor habitat quality, both from a physical and water quality perspective. The only redeeming quality in some of the watercourses was Northern Pike spawning. This has been discussed extensively in subsequent documents. Restoration and increasing productivity have also been discussed in subsequent documents. 128) Acknowledged. Subsequent documents have addressed the Species At Risk issue, both from a federal and provincial perspective. 129) Acknowledged. This data has been examined since this report was prepared and is discussed in subsequent documents. 130) Acknowledged. This issue is discussed in subsequent documents.

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			Environmental Overview Paper – Canadian Existing Conditions Volume 2 Natural Sciences, June 2005 131) Information has been provided regarding the individual municipality's plans which include fish and fish habitat protection 'clauses'. DFO considers these municipal plans when reviewing 'typical' work proposals in or around fisheries waters. DFO expects that there will be consideration for these existing plans in future DRIC documents and final design 132) Section 2.1 Brief History of Preliminary History Analysis Area, Canada pp. 3: "…passenger pigeons, trumpeter swans and greater prairie chickens." Suggest changing greater prairie chickens to "sharp-tail grouse (greater prairie chicken)" including the bracketed 'common' name. 133) Section 6.1 Fisheries and Aquatic Ecosystems, pp. 58: The focus in this section is on the SAR species in the Detroit River and little information was provided about the fish habitat in the watercourses 134) Section 9.1 Summary, pp. 93: This section is focused on natural heritage with little by way of fish and fish habitat analysis. The information should be available from multiple sources to add more detailed information on fish and fish habitat. "…the following might constrain but not preclude transportation facilities." Fisheries is listed here. Perhaps in absence of any information for background in this document, this comment is erroneous…or inaccurate. I would suggest that the fish, wildlife, etc be moved up to the above section *"…considered to influence the location of transportation facilities."* Draft Practical Alternatives Evaluation Working Paper Natural Heritage, Draft April 2008 135) *Molluscs and Insects*, pp. ES 1: Molluscs and Insects needs to be separated into 2 topics and at a minimum, molluscs (or just mussels) could be included in the Fish sections. Mussels are aquatic and some species are listed on SARA so fit better with the fish and fish habitat information. 136) *Fish and Fish Habitat*, pp. ES 1: "*The Detroit River Bed in the vicinity of the proposed piers*…." Comments about the fish habitat in the Detroit River are no longer important with the commitment that there are no proposed piers in the current plan. 137) *Results*, pp. ES 2: "*No watercourses or waterbodies…..support cool or coldwater fish communities*…" This statement is not completely accurate because at a minimum, many of the watercourses do support seasonal coolwater communities as shown by the presence of successfully spawning northern pike. Similarly, records also show the presence of mottled sculpin, a coldwater indicator species. 138) "*Many watercourses function as municipal agricultural drains…do not directly support fish habitat*." This comment suggests that drains are not fish	131) Comment noted. These municipal documents will be examined during future design stages. 132) Comment noted. This information will be carried forward to future design phases. If future study documentation includes reference to this species, the correct name will be used. 133) Acknowledged. Subsequent documents have discussed fish habitat in "inland" watercourses. 134) Comment noted. The issue of fish habitat and its role in constraining the project has been discussed in detail in subsequent documents. 135) Although mussels are included under the Fisheries Act, they were grouped with other invertebrates under a separate scope/work plan. As such, they were contained within their own section. No mussel species at risk are present within the study area. 136) Acknowledged. 137) This statement has been changed in subsequent documents to reflect the presence of Northern Pike. The study team is not aware that the success of Northern Pike spawning has been confirmed. We are also not aware that Mottled Sculpin have been found in the watercourses within the study area. The study team would appreciate receiving the data that indicates the presence of Mottled Sculpin in the watercourses within the study area as well as data indicating that Northern Pike spawning in the study area watercourses has been successful so that it can be carried forward for consideration during future design phases. 138) Comment noted. The study team will carry this information forward to future design phases. Future documentation will acknowledge that agricultural drains may in some cases constitute fish habitat.

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			habitat which is incorrect in many cases. At a minimum, the drains are indirect fish habitat and provide water and/or nutrients to downstream receiving bodies. Please consider revising this section. 139) *"No critical fish habitat…."* Spawning habitat is critical where it is limiting or of a specific nature, as in the case of northern pike. This comment needs to be revised to include the case for northern pike. 140) *Evaluation of Practical Alternatives*, pp. ES 2: This section has a high degree of specific or semi-specific comments on wildlife and terrestrial habitats and impacts but little discussion on fish habitat. The tone of this section minimizes the value of habitats that may be present though no data has been highlighted to support this conclusion. In the absence of definitive information DFO will take a precautionary approach and assume that the habitat is of high quality and productivity and manage accordingly. 141) Under the sub-heading of *Surface Water*, the same 'no critical habitat' comment is here minimizing what habitat exists. There is no discussion regarding habitat fragmentation, or isolation of populations from increased fish passage issues or entombing of watercourses. 142) Section 2.1.2, *Molluscs and Insects*, pp. 6: As above, separate these topics. 143) Section 2.2.2, *Molluscs and Insects*, pp. 8: As above, separate these topics. 144) "*The following organizations were contacted directly for data….DFO…and Burlington District Office (Great Lakes Laboratory for Fisheries and Aquatic Sciences)"* Please note that the Burlington District does not have any mussel data to provide so please correct this error. Clarify who was contacted at the Great Lakes Laboratory because we aren't clear who that is and what information they would be in a position to provide. 145) Section 2.2.3 *Fish and Fish Habitat*, pp. 12: "…*at the location of possible bridge piers*…." No bridge piers proposed this is likely a relic comment from Alternatives planning early in the process. Omit and revise. 146) Section 2.3.2 *Molluscs and Insects*, pp. 22: As before, separate these topics. As it is in this section, they are discussed separately (ss 2.3.2.1 and .2) so it should not be an onerous task to cut and paste to at least, in the Fish section. 147) Section 2.3.3.1 *Fish Species*, pp. 38: "…*comprised of resident warm water sport and bait fish. Northern pike were observed spawning*…" Northern pike are a cool water species, and some were found spawning within the AOI; note that northern pike have very specific spawning requirements. This section should be written to reflect that this species is present within the AOI and outline what that means to that system (re: quality, temperature, guild, community, etc). 148) Section 2.3.3.2 *Fish Habitat*, pp. 4: "…*None of these watercourses….support an important migratory fishery*." Define what is meant by "important" migratory fish species. Northern pike do move or migrate to spawn if they are	139) Comment noted. This information will be carried forward for consideration during future design phases and any future documentation. 140) Comment noted. The significance of fish habitat has been discussed in detail in subsequent documents. 141) These issues are discussed in detail in subsequent documents. 142) See response to comment 135) 143) See response to comment 135) 144) Todd Morris at the Great Lakes Lab in Burlington was the contact. From the conversations with Todd Morris, it was the understanding of the invertebrate biologist that there were no issues with mussels in the DRIC study area (i.e., that there were no records in the area). 145) Any statements regarding bridge piers will not be included in future documentation. 146) see comment 135) 147) This, or similar text, will be updated, or has been updated, in future/subsequent documents to emphasize the importance of Northern Pike spawning habitat. 148) This statement has been omitted from subsequent documents.

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			not resident to the watercourse and as a sport fish and as a fishery, they are important. Revise this section. 149) Section 2.4.2.3 *Impacts to Aquatic Communities Located in the ROW, Significance*, pp. 79: In the establishing of criteria for listing habitats as High, Moderate/Medium or Low, where does spawning habitat fit? How would rare spawning habitats…or specific spawning habitats and requirements of species affect this classification? This analysis needs to take into consideration the importance and presence of spawning, YOY and juvenile northern pike throughout the AOI. 150) Section 2.4.3 *Results*, pp. 84-94: Impacts through this section with respect to aquatic communities are based on the direct footprint and do not account for fragmentation of habitats, critical minimal area, or community fragmentation/fish barrier issues. The impacts outside of the direct project footprint need to be considered in the assessment of the overall impact to fish and fish habitat. 151) Provide additional information to support assigning the 0.2 (low value) value to habitats affected. To assign this because the systems are disturbed does not account for the presence of good habitats such as Cahill, Wolfe, Turkey, Lennon. 152) Section 2.6.4 *Surface Water*, pp. 97: "*Since none of these watercourses directly support critical fish habitat….*" The importance of the term 'critical' is over-emphasized in this context. These comments minimize the value of habitat in the AOI and are misleading. The statement should read that all of these watercourses support fish habitat and then base your conclusions around this assumption. <u>Practical Assessments Evaluation Assessment Report Stormwater Management Plan July 2007, Revised March 2008</u> 153) Section 6, *Fish Habitat*, pp. 16: Section describes that based on the findings listed in another report; all the watersheds in the AOC are warm-water only, except the Detroit River. As listed in comments from DFO, many of the systems in the AOC do provide, at a minimum, important cool-water habitats as evident by spawning northern pike and rearing YOY and juveniles **Natural Heritage Impact Assessment**. <u>Recommended Plan December 2008</u> 154) *Molluscs and Insects*, pp. vi: Separate these 2 topics…and at a minimum, include Molluscs with Fish 155) *Fish and Fish Habitat; Mitigation*, pp. ix-xi: In the section starting as Barriers to Fish Passage, it lists the use of culverts that will be designed using natural channel design. We typically see natural channel design principles applied to channel realignments and not associated with culvert installations. Are channel realignments predicted as part of most of the culvert installations?	149) The wording has been changed in subsequent documents to reflect the significance of the presence of Northern Pike adults in the habitats during spawning season. However, no YOY or juvenile Pike have been found in the systems as of the time of this response (i.e., the success of the potential Pike spawning is unknown). 150) Impacts outside of the footprint of the project are discussed and are addressed in detail in subsequent documents. 151) Although Cahill, Wolfe, Turkey and Lennon are the best of the habitats within the study area, these would not be considered "good" habitats based on standard practice. The paucity of fish captured during collections or observed during site visits in these drains (Cahill, Wolfe, Lennon) or the concrete spillway characteristics observed (Turkey) all point to poor quality habitats. 152) This statement is not contained in subsequent documents. 153) Agreed that some of these systems support coolwater fish species. This will be reflected in future documentation. As far as is known to the study team, YOY and juvenile Pike have never been captured or observed within the AOC. Please provide data if this last statement is incorrect. 154) See comment 135) 155) The wording in subsequent documents has been changed to reflect "fish friendly culvert design" and channels designed using "natural channel design principles". The channel realignments are the result of footprint impacts, not culvert installations.

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			156) Further, the section talks about alternative methods to mitigate fish passage such as lifts/locks or capture/release methods with a statement that if they don't work or are cost prohibitive, others methods will be explored. Fish passage mitigation of some kind must be attempted in these systems and if they are not completely successful additional compensation will need to be considered. 157) The fish passage issues at these locations are a serious concern for us and the proponent must make a commitment to mitigate the impact to the greatest extent possible and only then will DFO be prepared to discuss alternate compensation to address the issue. If maintaining fish passage in these systems is determined to not to be feasible after a complete examination of alternatives then the loss of access to the upper reaches of the watershed and fragmentation of the habitat will need to be addressed in a compensation plan. 158) This section makes mention of the use of off-site compensation and/or providing money for projects to be completed in the future. Off-site compensation is the least preferred option and would only be considered if all on-site options have been explored. Funding in lieu of compensation is not an acceptable option however if the proponent wants to partner with another agency or group on an enhancement/restoration project that may be acceptable. If DFO were to allow compensation of that type the details would be included in the Fisheries Act authorization and the proponent would be responsible for ensuring that the work was completed and functioned as intended; money in exchange for habitat loss will not be considered. 159) A mitigation measure provided on pp. xi deals with timing windows and lists the in water timing as April 1 to June 30 with an 'extension' to March 16 for northern pike. This information is incorrect and the actual timing window is March 15-June 30, no in-water work. 160) Section 3.2 *Molluscs and Insects*, pp. 7: Separate these 2 topics…at minimum, put mollusks with Fish. 161) Section 3.3 *Fish and Fish Habitat*, pp. 8: The phrase *"presence/absence"* in reference to northern pike is incorrectly used. Pike can be present in any of these connected systems; the fact that they were not observed during assessment work does not make them absent it simply means that the consulting team did not observe them. Because the systems are interconnected the assumption has to be that it is possible for them to occur in all of the interconnected watercourses. 162) Section 4.2 *Molluscs and Insects*, pp. 12: Separate these 2 topics…at a minimum, put mollusks with Fish. 163) Section 4.3 Fish and Fish Habitat, pp. 12 "…*support warm water baitfish communities or no fish habitat at all*." Correct this to say that no **direct** fish habitat is present in some systems as all of them will contribute water and nutrient content to downstream fish habitat.	156) Agreed. Every effort is being made to accommodate fish passage in one form or another. 157) Agreed. A feasibility study is currently underway to evaluate the alternatives for fish passage. 158) Comment noted. 159) This information will be updated in future documentation. 160) See comment 135) 161) Acknowledged. This wording will be changed in future documentation. 162) See comment 135) 163) Acknowledged. This will be corrected as per comment in future documentation.

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			164) "…*no critical fish habitat or fish species*…." The spawning, rearing YOY and juvenile northern pike habitat is critical habitat so rewrite this section to reflect that fact. 165) Section 6.6, *Molluscs and Insects*, pp. 47: Separate these 2 topics…at a minimum, put mollusks with Fish. 166) Section 6.7.2.3 *Monitoring and Follow up*, pp. 59: Although the watercourses are all classified as municipal drains the Fisheries Act applies; there is a Class Authorization Process for the Maintenance of Municipal Drains that all municipalities, including Windsor, follow and the municipalities are not in a position to proceed with a drain clean out without contacting other departments with regulatory responsibilities. 167) Section 6.7.3.2, *Environmental Protection Measures*, pp. 61: The last paragraph of this section at the top of pp. 61 indicates that if the discussed fish passage methods are too costly or labour intensive that alternative plans (compensation) will be developed. 168) This type of statement concerns us because it suggests that the loss of fish passage and fragmentation of the upper watersheds is an acceptable loss to DFO and could be compensated for. The proponent is required to implement some type of fish passage mitigation at Cahill and Lennon drains and if it does not completely mitigate the impacts then DFO will consider additional compensation. 169) Section 6.8.1.4, *Obstruction of Wildlife Movements*, pp. 63: This section describes how the highway corridor has the potential to fragment wildlife populations effectively isolating them from food and habitat types on either side of the highway. Why has this same type of logic and wording not been applied to Fish and Fish Habitat? As it is now, large tracts of wildlife habitats are fragmented from the existing highway. As this is not a new highway but a reconditioning of an existing one where-by both fish and wildlife will be impacted, these wildlife fragmentation comments should be found in both the fish and wildlife sections. 170) Section 6.9, *Species at Risk*, pp. 73-75: This section describes considerations of both the provincial ESA and the federal SARA. As it is now, in any one paragraph throughout the section, it bounces between ESA and SARA to the extent that it is sometimes difficult to discern what act is being discussed. While I do think that this section can discuss both acts, they should be discussed in terms of being very separate but related entities. As such, the title of this section should also read SAR and ESA denoting that both acts are being discussed here. 171) Section 6.11, Conclusions, pp. 95: In this section, it indicates that "…the approaches identified…..will serve as conditions of approval for environmental approvals and permits." While I do agree that this document did discuss many seemingly acceptable ways to address impacts to the natural heritage, I am left	164) Noted. Will adjust wording accordingly in future documentation. 165) see comment 135) 166) Will adjust wording to reflect this in future documentation. 167) and 168) All efforts are being made to accommodate fish passage at Lennon and Cahill Drains in some form. A feasibility study is underway regarding fish passage. We realize that the loss of upper watersheds would not be considered an acceptable loss and understand DFO's position. 169) Statements will be made to reflect this comment in future documentation. Agree that wording should/could be similar. 170) The title "Species at Risk" has been modified to "Species at Risk and Endangered Species" for Sections 7.5.1, 7.5.3 and 7.5.4 in an Errata document that has been prepared for the EA Report. This comment will also be carried forward for consideration during later design stages. 171) As the process regarding the proposed works has evolved, so have the impacts and mitigation. Because of the complexity of the project, impacts have only fairly recently become fully realized. As such, the compensation/mitigation has evolved over time and is continuing to evolve as the impacts become more apparent or are better defined. Because of the novelty of the fish passage systems proposed, the feasibility of their construction and operation have to be considered in detail. This process is proving to be a lengthy one and is still on-going. We will continue to consult with DFO on this issue.

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			wondering what happens if a plan can't address the impacts? As an example, the fish passage/habitat fragmentation issue, in this document and all others on this topic, there are no other alternative save 'we will work on them' type of comments. As such this comment is still very much, a planning comment I would expect to see early in a plan development perhaps in an introduction document explaining a project proposed in an area. However, this document is to be viewed as a near-finished document. After all the documents compensation for the impacts to fish and fish habitat is still not clearly outlined.	
25	3 Mar-09	MNR	172) Page 1 of 21 MNR Recommendation: The Natural Heritage Impact Assessment – Recommended Plan (December 2008) with modifications be approved as part of the approval of the Environmental Assessment. 173) Page 2 of 21: We request the inclusion of the adaptive management. 174) Page 2 of 21: The MNR requires clarification of the phrase 'higher quality habitat', as it relates to proposed mitigation (i.e. habitat creation and enhancement work); specifically, whether the proposed 'higher quality habitat' is being compared against what currently exists at a particular location or after construction activities have commenced. 175) Page 2 of 21: The extent of the impacts to natural heritage features and proposed mitigation measures require more detail to enable a review of the effectiveness of the proposed mitigation measures and follow-up monitoring plans. We recommend that the proponent clarify which of these 'should' and 'could' statements are "must" statements. Subsequently, MNR will be able to determine if the mitigation measures will be effective to mitigate the impacts. 176) Page 2 & 3 of 21: As the decision-making process was based on professional judgment, we recommend that a sensitivity analysis be conducted on the Simple Additive Weighting matrix to validate the matrix and to demonstrate the following: 1) the effects of small errors in judgment, 2) that the weighting applied to criteria(s) and indicator(s) are appropriate, and 3) that the outcome (or results) vary to the extent of their weighting. The impacts to the natural heritage features may be higher and thereby alter the need for mitigation measures.	172) The DRIC study team does not intend to revise the *Natural Heritage Impact Assessment – Recommended Plan (December 2008)*. However, the comments provided by MNR will be incorporated into the ESA 2007 Permit, and will be carried forward to future design stages for consideration and incorporated into future documentation as appropriate. 173) An adaptive management approach will be taken to mitigate the impacts resulting from this project. 174) Higher quality habitat refers to new high quality habitat after construction and enhanced currently existing natural habitat. Existing vegetation communities were classified as high quality and protection areas if their floristic quality index (FQI) value was greater than 35. 175) The level of mitigation identified is considered reasonable for an environmental assessment study based on a conceptual design level of detail. As the design advances, mitigation will be further refined and specified. "Woulds" and "shoulds" will become "wills" and "shalls" as the mitigation is further developed. 176) The simple additive weighting (arithmetic) method served as an effective tool to compare a large number of alternatives. The simple additive weighting method was responsive to indicators and criteria. The results showed a significant difference among alternatives where a variation existed (i.e. plaza/crossing). Where there was no significant difference among alternatives (i.e. access roads), the results reflected this reality, showing little variation. At the indicator level of evaluation, provincially rare specimens/colonies and designated natural areas were not included in the evaluation because these two criteria had no indicators, hence they were assigned a weight of "1". At the criteria level of evaluation, provincially rare specimens/colonies and designated natural areas were weighted appropriately and factored into the multi-criteria evaluation. We believe that the weights used in the evaluation are reasonable and defensible and resulted in reasonable and defensible scores for each alternative. The reasoned argument method was used to check the

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			177) Page 3 of 21: We will continue to work with the MTO and the MOE to ensure that our requirements under the MNR Class EA for RSFD are properly addressed in accordance with Section 2.6. We will rely on the MOE to inform us when the MTO has met their requirements under the Environmental Assessment Act, including compliance with any provisions of an approval, order or regulation for the DRIC project. The MTO must provide a letter to the MNR once they have met this obligation; which will allow us to proceed with considering the disposition of the Crown Resource. 178) Page 3 of 21: MNR request to review additional documentation on cumulative effects and the proposed measures for the long-term maintenance of ecological communities. Commitments are required for this go beyond the completion of the construction phase to ensure that the agreed upon mitigation measures continue to be effective. 179) Page 3 & 4of 21: Remove reference to the Schedules under the ESA 2007 and COSSARO status throughout the document. 180) Page 3 & 4of 21: We request further information that describes the impacts to Eastern Foxsnake and the suitability of adjacent habitat where considered as part of the mitigation measures. 181) Page 4 of 21: Where vegetation and vegetation communities have been identified to be displaced, there should be sufficient information to determine if the mitigation measures will provide an equivalent replacement. This section could have more clearly described and identified the number and extent rare communities and rare species to be impacted. Supporting decision-making information is requested where an impact has been determined to be 'negligible' or an activity will 'enhance'.	results and ensure that the alternatives selected were reasonable and defensible. Informal sensitivity tests were performed in-house to verify the effect that weighting had on the results. 177) MTO will provide MNR with a letter indicating that they have met the requirements of the *Environmental Assessment Act*. 178) Cumulative effects will be addressed in the CEAA Screening Report for the DRIC study. 179) Species are regulated under the *Species at Risk Act* and the *Endangered Species Act, 2007*. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and the Committee on the Status of Species at Risk in Ontario (COSSARO) designate species at risk. Reference to Schedules will be omitted in future documentation. 180) Further information on Eastern Foxsnake and its habitat is provided in the ESA 2007 Permit Application and will be provided following field surveys to be conducted in 2009. Suitable foxsnake habitat has been identified through analysis of habitat and review of occurrence records within/adjacent to the study area. However, compensation/restoration areas will be selected in future design stages. 181) Vegetation community types will be replaced on a like-for-like basis where practical and feasible. The end goal will be to restore the available land to the same historical natural composition that was present prior to Caucasian arrival in the area. Several different seed mixes and woody planting selections will be required as one type will not be suitable for all areas along the Parkway. The default restoration targets will be tallgrass prairie, oak savannah, oak woodland, oak forest, oak-hickory woodland, oak-hickory forest and pin oak swamp in the wetter areas. The Ministry (MTO) has committed to enhance and restore vegetation communities following ecological principles. The enhancement and restoration of vegetation communities will be used to offset the loss of vegetation communities resulting from this project. Vegetation community types will be replaced on a like-for-like basis where practical and feasible. The number of rare communities that are present within the Area of Investigation is outlined in Subsection 4.1.1 Vegetation Communities and the location and an updated list of all the vegetation communities is provided in Appendix A. A description of the existing species at risk located within the study area is presented in Subsection 4.1.2 Species at Risk and in Table 2 Provincially Rare Vascular Plants Located Within the Study Area. Regulated plant species at risk are further described in Subsection

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			182) Page 4 of 21: Rare vegetation communities will be identified in the Landscape Plan and will be protected, enhanced or created to maximize the abundance and diversity of vegetation species and ecological communities. The Landscape Plan should include a strategy on low quality areas. 183) Page 4 & 5 of 21: There is a lack of discussion on the impact of lowering the ground water table on vegetation communities. Without further information on the impacts of ground water and its management in this section, we are unclear on whether the impacts have been documented and how the impacts will be addressed. 184) Page 5 of 21: Further details are requested on the above techniques. The use of transplanting sod or good quality topsoil with a strong prairie seedbank is a preferred method of "prairie establishment". The Landscape Plan should include the use of topsoil stripping and prairie establishment as well as establishing criteria when it can be determined that the "established" communities are known to have become fully functioning vegetation communities. MNR requests to be involved. <u>Restoration Strategies (pg 38) Page 5 of 21:</u> With respect to the order of priority in the restoration strategies; we request clarification on how the decision-making process will provide assurances that the proponent will explore the prioritized restoration strategies in descending order. <u>Establish / Restore New Prairies (pg 39) and Restoration Methods (pg 39)</u> The terms of establishment, restoration and restoration methods should be further defined to clearly distinguish the objectives for each term and then be able to determine their effectiveness. We suggest that the term restoration means taking measures to improve an already functioning prairie and suggest that there are several instances where the term restore should be replaced with establish. <u>Topsoil Stripping (pg 40)</u> Further detail is requested on the use of topsoil stripping. We suggest that this technique is only appropriate where good prairie must be removed. <u>Forest and Swamp Restoration Strategies (pg 41)</u> The techniques outlined have been greatly simplified. There is a lack of certainty on the success of creating these communities and determining when they become fully functioning vegetation communities. The Landscape Plan should recognize this.	6.9.4.1 Potential Environmental Effects. Impacts were determined to be negligible when they were considered to be insignificant or not important enough to consider. An activity enhanced the natural environment when it increased or improved the quality or quantity present. 182) The landscape plan does not just apply to rare vegetation communities. It also applies to high, moderate and low quality natural areas. Floristic quality assessment was used to determine the quality of each vegetation community located in the study area. This information was then used to determine the significance of displacement/disturbance effects and to prioritize vegetation communities for protection, enhancement or restoration. Appendix A delineates the high quality natural areas that will be protected where possible; the moderate quality natural areas that will be enhanced; and the low quality natural areas that will be restored. Low quality areas will be replaced, where practical and feasible, based on site characteristics, project design and property ownership. These areas will be addressed in the Landscape Plan during future design stages. 183) The impacts of dewatering are addressed in section 6.2.10.9 of the *Natural Heritage Impact Assessment – Recommended Plan (December 2008)* that deals specifically with the St. Clair College Prairie ESA. It should be noted that the proposed works are not expected to result in significant permanent dewatering or changes in groundwater due to the limited permeability of the native soils. As a result, the study team does not anticipate significant permanent effects to adjacent vegetation communities and watercourses. As expressed in the *Natural Heritage Impact Assessment – Recommended Plan (December 2008)*, the study team recognizes that further investigation may be required to more definitively establish the interaction between groundwater, surface water and the maintenance of watercourses and adjacent natural heritage areas. The effects of ground water drawdown will be addressed in greater detail in the application for a Permit To Take Water (PTTW). 184) The landscape plan is designed to adhere to the restoration techniques outlined in the Recommended Plan report. Our description of restoration techniques for the landscape plan already includes transplanting sod and topsoil stripping. Prairie establishment is described in detail throughout the report. Agreed, "The use of transplanting sod or good quality topsoil with a strong prairie seedbank is a preferred method of "prairie establishment". The Recommended Plan report was designed to outline various management and restoration techniques that could be

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				used for diverse site conditions. The level of detail within the report was not site specific it was more general to deal with the whole Area of Investigation. Further information on restoration techniques are provided in the ESA Permit application and will be addressed in the Landscape Plan during later design phases. MNR involvement will be essential. Natural areas for protection/high quality, enhancement/moderate quality and restoration/low quality have already been identified and delineated in Appendix A. Appendix A maps were used to delineate the Ecological Landscapes within the landscape plan for the Recommended Plan, which can be found in the *Urban Design and Landscape Planning Report – Recommended Plan (December 2008).* The decision-making process will provide assurances that the proponent will explore the prioritized restoration strategies in descending order, since the order has been outlined in the Environmental Assessment and delineated within Appendix A and in the landscape plan for the Recommended Plan. The term "enhance" in the report means to improve the quality of an existing vegetation community. Restoration involves renewing a degraded low quality cultural vegetation community back into its natural state. Establishment involves the creation of new vegetation communities on newly disturbed, existing agricultural, degraded or stripped land. Agreed, there are several instances where the term restore should be replaced with establish. The terms will be properly used in future documents. These terms are further defined on p. 39. The topsoil stripping section is quite detailed for Preliminary Design. Section 6.5.2.2 Environmental Protection Measures Subsection Topsoil Stripping clearly states that "If the soils within the footprint contain a prairie seedbank, the soils should be used in the adjacent lands within 120 m of the footprint." Agreed, topsoil stripping is only appropriate where good prairie must be removed from within the footprint of the Recommended Plan. Agreed, the techniques outlined should be expanded in future documents. The Maintenance and Warranty (pg 41) Subsection and Section 6.5.2.3 Monitoring and Follow Up contain monitoring and warranties to ensure successful plant establishment and reproduction. Management prescriptions will be monitored to determine if alternate techniques are required to meet the goals of the landscape plan. The monitoring section will be updated in future documents to include criteria on determining successful establishment and functioning of newly created vegetation communities.

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			185) Page 6 of 21: Fire management plans to establish and maintain tallgrass prairie, savannah and woodland should be developed with input from MNR. At a minimum, we recommend that the determination of the fire regime be developed with an annual on-site assessment of each site. 186) Page 6 of 21: Minimize use of mowing when fire management techniques are possible. If mowing is to be used to control White Sweet Clover, mowing should only be used only in late June (as the flowers develop). 187) Page 6 of 21: Any mitigation measure that influences the restoration/ establishment of natural heritage areas should consider the impact to insects. Restoration / establishment that helps increase the diversity of native insects is supported. 188) Page 7 of 21: Further information is required to analyze the changes in groundwater hydraulic regime; specifically we require additional information on the zone of groundwater influence of construction activities. 189) Page 7 of 21: Request to review details on the loss and replacement of suitable habitat. Confirm whether hibernacula have been confirmed or theorized and if any will be destroyed. 190) Page 7 of 21: Clarification is required as to whether the translocation protocol put forward in the second paragraph is suggesting that 'new' individuals will be brought in to augment the existing population of Butler's Gartersnake; if so, this raises additional questions (i.e. where would these individuals be brought in from, health of new individuals, etc.). 191) Page 7 of 21: Restoration/ establishment has been identified as a method to improve the size and quality of Butler's Gartersnake habitat. Additional details are needed on the restoration efforts (e.g., timing, exotic controls, length of time to stabilize and mature). Confirmation is requested on whether habitat restoration/ establishment will occur prior to displacement or after. Butler's Gartersnake has strong site fidelity. There is uncertainty as to whether functional habitat can be created in the length of time required prior to Butler's Gartersnake use of the site; specifically, whether this technique will result in the minimization of individuals lost, enhancing the remaining population, determining measures to know when the site is functional and when is the appropriate time to relocate individuals. Monitoring of the quality of the habitat and the snakes' use of it is required. Woody species control is required as part of the long-term maintenance plan.	185) The determination of the fire regime will be dependent on annual site assessments of each site as well as a number of factors that are clearly defined in Section 6.5.2.2. Environmental Protection Measures Subsection Fire. Prairie, savannah and woodland management techniques, including fire management, will be addressed in the Landscape Plan during later design phases. MNR involvement will be essential. 186) Section 6.5.2.2. Environmental Protection Measures Subsection Mowing clearly states that fire management techniques should be used instead of mowing. Agreed, white sweet clover, mowing should only be used in late June (as the flowers develop). Prairie management techniques, including mowing, will be addressed in the Landscape Plan during later design phases. MNR involvement will be essential. 187) Protection, enhancement and restoration of vegetation communities following ecological principles and using adaptive management techniques will support its inhabitants, including insects. 188) The impacts of dewatering are addressed in section 6.2.10.9 that deals specifically with the St. Clair College Prairie ESA. It should be noted that the proposed works are not expected to result in significant permanent dewatering or changes in groundwater due to the limited permeability of the native soils. As a result, the study team does not anticipate significant permanent effects to adjacent vegetation communities and watercourses. As expressed in the *Natural Heritage Impact Assessment – Recommended Plan (December 2008)*, the study team recognizes that further investigation may be required to more definitively establish the interaction between groundwater, surface water and the maintenance of watercourses and adjacent natural heritage areas. The effects of ground water drawdown will be addressed in greater detail in the application for a Permit To Take Water (PTTW). 189) Further information on Butler's Gartersnake and its habitat is provided in the ESA 2007 Permit application and will be provided following field surveys to be conducted in 2009. Evidence suggests that Butler's Gartersnake are using crayfish burrows as hibernacula based on the presence of crayfish burrows in the same area as snakes were captured when they emerged from hibernation. This reasoned theory will be confirmed through field surveys to be conducted in 2009. 190) Butler's Gartersnakes from the existing population will be translocated to the restoration area. This issue will be further addressed through the ESA 2007 Permit process. 191) Further information on Butler's Gartersnake and its habitat is provided in the ESA 2007 Permit application and will be provided

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			192) Page 7 of 21: Section 6.9.2.2 Butler's Gartersnake: Environmental Protection Measures (pg 76) Several "should" statements are listed in this section. Clarification is needed to determine which of these "should" the proponent will be committed to. 193) Page 7 of 21: Supporting scientific information is requested to determine the effectiveness of the proposed mitigation measures to support the restoration / establishment of habitat. Monitoring and follow-up is required as part of this approach and adaptive management should also be considered for this species. Fire management for Butler's Gartersnake habitat should be completed in a patchwork or rotational manner. 194) Page 8 of 21: Clarification is requested in regards to the discussion on mowing versus burning (pg 77). Based on our calculations, mowing should be done in patches on a monthly rotational pattern, with no more that 33% of available grassland habitat affected in any one year. With the growing season going from about May to October, this implies that at the most, 5.5% of the site will be mowed each month, for a total of 6 months, so that over a three year period the entire site will have been mowed once. Confirm the accuracy of this analysis. 195) Page 8 of 21: Specific details on the barrier fence to be erected along portions of the construction area are needed to assess its probability of success. As well, additional detail is required on the permanent snake barrier for Butler's Gartnersnake to be built during "facility operation". We request that Eastern Foxsnake also be considered in the design of the permanent snake barrier and that associated eco-passages are considered (see below). 196) Page 8 of 21: It is stated that exclusion fencing should be monitored twice a week – March 15 to Oct 31 or until all construction has ceased. These dates do not coincide with the exclusion fencing dates provided in 6.8.3.2. Please confirm the use of the term 'critical habitat' with Environment Canada. MNR Recommendation: Confirm timing windows. 197) Page 9 of 21: We seek additional information to support the professional opinion that the recommended plan will not result in extirpation of or significant threat to the local population of this species. To date, the current level of information regarding the distribution and population size of the species at this site is limited. 198) Page 9 of 21: Greater clarity is required on the impact of the loss of destruction and/or alteration of suitable habitat for this species, for a period of anywhere between several months up to the entire construction period. Information regarding the suitability of adjacent lands and whether the destroyed habitat includes hibernacula to which this species shows a great deal of fidelity, needs to be provided. Additional information is also requested to support the statement that snakes that get displaced move on to adjacent lands, and to identify the impact from that movement to the population of snakes already using those adjacent lands. Mitigation measures are presented broadly and further detail is required.	following field surveys to be conducted in 2009 and during later design phases. 192) The level of mitigation identified is considered reasonable for an environmental assessment study based on a conceptual design level of detail. As the design advances, mitigation will be further refined and specified. "Woulds" and "shoulds" will become "wills" and "shalls" as the mitigation is further developed. 193) Further information on Butler's Gartersnake and its habitat is provided in the ESA 2007 Permit application and will be provided following field surveys to be conducted in 2009. 194) The calculations related to mowing are correct. 195) Additional studies will provide data relating to the need for permanent Eastern Foxsnake barriers and associated eco-passage within or adjacent to Butler's Gartersnake habitat. If a risk of road-mortality is identified, snake barriers will be erected where and to the extent feasible. 196) The exclusion fencing only needs to be monitored during the time of year when snakes are present. Butler's Gartersnake are reported to emerge in the Windsor area as early as late March. 197) Occurrence data (NHIC and Ojibway Centre 2009) suggests that The Windsor-Essex Parkway would impact primarily the fringe of the Eastern Foxsnake population, within the City of Windsor. Compensation (habitat creation/restoration) will offset the loss of habitat caused by The Windsor-Essex Parkway. However, as this species is known to show strong fidelity towards critical habitats, loss of critical habitat such as oviposition and hibernation sites may result in the indirect loss of Eastern Foxsnake within the study area. Further research is needed to determine the extent of site fidelity as a telemetry study at Point Pelee documented a foxsnake hibernating at two sites (approximately 150 m apart) during the two years it was tracked (Closkey, et al., 1995). Anecdotal evidence suggests a communal foxsnake hibernaculum may be located on Reddock Street. Five foxsnakes have been seen emerging from under structures in early May. All of this evidence is anecdotal in nature, thus the DRIC study team intends to investigate this sighting in spring 2009. Moreover, further field investigations are needed to determine (to the best extent possible) any hibernacula within the footprint. 198) Further information on Eastern Foxsnake and its habitat is provided in the ESA 2007 Permit application and will be provided following field surveys to be conducted in 2009.

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			199) Page 9 of 21: To allow for a better understanding of the impact of the footprint on the local population, the following information is required: additional radio-telemetry and visual survey work, additional searches for hibernacula locations, supporting documentation for the success of recreating hibernacula. 200) Page 9 of 21: To clarify the intent of the first paragraph, we recommend the following change: "those buildings and structures scheduled for demolition, which have been assessed as potential Eastern Foxsnake habitat, will be searched by a qualified snake specialist…". 201) Page 9 of 21: Furthermore, we recommend that additional detail be provided to clarify timing windows; specifically, • Removal of buildings shall only occur when Eastern Foxsnake are not hibernating (May to Sept). • Buildings must be inspected at an appropriate time period (i.e. should not occur while the snakes are active from May to September) to effectively determine their suitability as hibernacula, and numbers to be replaced. 202) Page 9 of 21: We recommend that further to the identified mitigation of a keeping a well organized work site, that a visual inspection occur for all machinery left on site after each period of inactivity (i.e. each morning, machinery is inspected prior to start up; after lunch, same activity repeated). This will assist in avoidance of accidental death of snakes that may have taken shelter within the machinery. Furthermore, we request that the following commitment: "…all encounters should be reported…" be changed to "…all encounters will be reported…". 203) Page 9 of 21: We support the permanent protection of Butler's Gartersnake habitat and recommend that Eastern Foxsnake habitat also be considered for permanent protection. Increasing certainty in the permanent protection of habitat will lend strength to its use as a mitigation measure. Details are required on the proposal to create new nesting sites and artificial hibernacula to compensate for those lost; including information on design, number, locations etc. 204) Page 9 of 21: Snakes will be captured and relocated…". Clarification on who will be capturing and relocating snakes must be confirmed. 205) Page 9 of 21: MNR Recommendation: Confirm mitigation measures. Confirm individuals responsible for capturing and relocating snakes 206) Page 9 of 21: Section 6.9.3.3 Eastern Foxsnake: Monitoring and Follow-up (pg 78) The exclusion fencing dates identified here do not align with those in section 6.8.3.2. Specific details on the barrier fence to be constructed along portions of the construction area are needed to determine its probability of success. We request additional information on the type of heavyduty sediment fencing that must be used and the timing for its use. Permanent exclusion structures should considered in areas of Eastern Foxsnake habitat. We request that permanent barrier fencing be researched for the Eastern Fox Snake to determine its effectiveness. If it is effective, we suggest it be considered in the design of the permanent snake barrier and that associated eco-passage are considered. Habitat structures proposed to be created, such as "hibernation,	199) Agreed. Multi-year telemetry investigations are required to address impact assessment and success of mitigation measures. 200) Buildings or structures scheduled for demolition, which have been assessed as potential Eastern Foxsnake habitat will be searched by a qualified snake specialist. 201) The timing window for building demolition in locations of known or potential Eastern Foxsnake presence is May to September while snakes are active and the timing window for inspection for hibernacula is October to April, when snakes are hibernating. All buildings suspected of providing refuge (hibernacula or otherwise) should be inspected within 48 hours prior to removal. 202) A further mitigation measure is to search all machinery prior to start up for Eastern Foxsnake. All encounters will be reported. 203) The Landscaping Plan identifies areas within The Windsor-Essex Parkway for protection, enhancement and restoration. These areas can be used for habitat creation for Butler's Gartersnake and Eastern Foxsnake and for long-term conservation purposes. The details of snake habitat creation will be worked out during future design stages. 204) Snakes will be captured and relocated by a qualified snake specialist under a Scientific Collectors Permit. 205) The details on mitigation measures will be confirmed during future design stages. 206) The exclusion fencing only needs to be monitored during the time of year when snakes are present. Butler's Gartersnake are reported to emerge in the Windsor area as early as late March. The details of the temporary and permanent snake barrier will be confirmed during future design stages. Terminology will be confirmed for future correspondence.

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			breeding sites and cover", should be monitored: should use consistent language – e.g. breeding sites = oviposition or egg laying sites, cover = basking sites o Further detail required on the long term monitoring needs to be determined. 207) Page 10 of 21: Replacement hibernacula should be constructed as close as possible to the original locations. The quantity and quality of hibernacula to replace the lost hibernacula and breeding sites should be equivalent to that which will be lost. 208) Page 10 of 21: MNR Recommendation: The proponent must determine the viability of permanent exclusion fencing and ecopassages for Eastern Foxsnake. Created habitat structures must be monitored and a long-term monitoring plan must be developed. Language must be clarified to ensure consistent interpretation. 209) Page 10 of 21: MNR Recommendation: Further details are required on identification of the number of impacted individuals for plant species, impact to the species, and mitigation measures. 210) Page 10 of 21: ***Section 6.9.4 Vascular Plants (pg 79)*** Clarity is requested on the methods used to determine the number of impacted individuals for each plant species; for example, Climbing Prairie Rose and Willowleaf Aster are typically clumping species. A clump of 15 stems of Climbing Prairie Rose may really be only a single plant. An individual plant of Willowleaf Aster may be a clone of several hundred or even a thousand or more stems. Therefore, clarify whether the numbers identified are in regards to number of stems or number of individual plants. 211) Page 10 of 21: The following information is needed to evaluate the severity of the impact to the Area of Interest and confirm its biological / ecological acceptability: determine the area of prairie / savanna lost and created. The discussion on mitigation should acknowledge that the creation of new prairie sites is not equivalent to retaining existing ones. 212) Page 11 of 21: MNR Recommendation: We recommend that a Landscape Plan included consideration for SAR plants and ecological communities. Within the Landscape Plan, we suggest that the principle of adaptive management be included. 213) Page 11 of 21: Threatened plant species: **Colic-root:** This is one of the few robust populations in the province as most of the 17 sites in the province are small. Current scientific knowledge suggests that Colic-root is extremely difficult to propagate. MNR recommends that the proponent ensure viable relocation and mitigation techniques are researched and applied. If these techniques are not viable, further discussion will be required on the impact to the population and growing from root division. Timelines need to be established for mitigation and monitoring. Further detail regarding the protection of existing and to-be-established sites (i.e. ownership) is also required. Need longterm monitoring requirement especially when in dense	207) The details of snake habitat creation will be worked out during future design stages. A minimum 1:1 compensation ratio will be used. 208) The details of snake habitat creation and snake monitoring will be confirmed during future design stages. 209) The number of plant species at risk to be lost is presented in Table 8. A clump of climbing prairie rose was considered one specimen. Individual flowering stalks were used to count willowleaf aster, colic-root, dense blazing star and Riddell's goldenrod. Individual trunks were used to count American chestnut, common hoptree, Shumard oak, dwarf hackberry and Kentucky coffee-tree. Suckers originating out of one trunk were considered one specimen. Mitigation measures are presented in Tables 9 and 10. Monitoring measures are presented in Table 11. Further information will be presented in the ESA 2007 Permit application. 210) The area of prairie / savannah lost and created will be calculated and described in latter design phases. 211) Compensatory mitigation for the loss of vegetation communities will be confirmed in developing the Landscape Plan during future design stages. The creation of new prairie sites is not equivalent to retaining existing prairie sites. 212) A detailed Landscape Plan will be prepared during future design stages. The Landscape Plan will include adaptive management measures for species at risk, rare vegetation communities, etc. 213) The ESA 2007 Permit application includes further information related to colicroot.

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			habitats. May be a species where fire management -controlled burns. 214) Page 11 of 21: **Willowleaf Aster:** We suggest that relocating by direct seeding – mitigation identified in table 10 – is not preferred due to the lack of viable seed. For this species, it is more effective to use vegetative cuttings. MNR recommends that the use of vegetative cuttings be added as a means of propagation. 215) Page 11 of 21: **Dense Blazing Star:** We recommend adding Dense Blazing Star to Table 11, as it responds favourably to regular fire regimes. Fire results in less competition from other plant species and stimulates this species to produce more seed in the year following a burn. Monitoring needs to be flushed out and detailed account of the habitat management requires formulation. 216) Page 11 of 21: **Kentucky Coffee-tree:** MNR has some concern on the origin of how they establishment (i.e. natural versus planted) of Kentucky Coffee-trees within the project area. The reports state that many of them appear to be planted. Therefore, to increase the level of certainty on whether these individuals are natural or planted, we request that the following information be gathered: • Determination of sex of the individuals; whether the population contains individuals from one or both sex. • If individuals are determined to be female, then we request that it be determined whether they are producing seed. • If they are natural, we suggest the following information may be beneficial: – Age: increment cores – Size of impacted individuals: height and diameter at breast height (dbh). – Information of whether these individuals can be successfully relocated. – Identification of whether there are any wild, native populations of Kentucky Coffeetree in the Windsor Area; the general health of those wild, native populations; and the – proximity of the trees impacted by the project to the wild populations. 217) Page 11 of 21: **MNR Recommendation:** Proponent to determine whether the individuals are natural and/or planted. Mitigation measures must reflect the determination. If natural, then additional information will be required to adequately determine mitigation measures. Transplanting should be added to table 10 as a mitigation method for Kentucky Coffee-tree. 218) Page 12 of 21: **Riddell's Goldenrod:** Table 8 - high numbers will be displaced (stems or plants). *MNR Recommendation: Transplanting should be considered further.* 219) Page 12 of 21: **Shumard Oak:** We seek clarity on the level of disturbance to	214) The ESA 2007 Permit application includes further information related to willowleaf aster. 215) The ESA 2007 Permit application includes further information related to dense blazing star. 216) The ESA 2007 Permit application includes further information related to Kentucky coffee-tree. 217) The ESA 2007 Permit application includes further information related to Kentucky coffee-tree. 218) A large number of Riddell's goldenrod will be displaced, although this species does not receive protection under the *Endangered Species Act, 2007*. Management of Riddell's goldenrod will be confirmed during future design stages. 219) The approach to management of Shumard oak will be confirmed during future design stages.

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			the 24 mature trees and any mitigation that is being put forward. This species is likely to be that greatest impacted by changes in hydrology. If it is determine that mitigation measures are required, then these commitments should be added to Table 9. 220) Page 12 of 21: **Climbing Prairie Rose:** Clarification is requested on the effectiveness of burning to maintain this species in the long term. 221) Page 12 of 21: ***S. 6.9.4.2 Vascular Plants: Environmental Protection Measures (pg 84)*** We note that Walpole Island First Nation (WIFN) has offered seed for restoration/enhancement efforts. MNR preference is for seeds and/or plant material to come from individuals on the site impacted; therefore, MNR recommends that vascular plants be salvaged and/or seed collected from the site (through partnership) as primary plan of action. Only if that is not feasible/possible, should MTO look to the surrounding landscape for seed and/or plant sources. 222) Page 12 of 21: MNR Recommendation: Vascular plants, including SAR, should be salvaged onsite first. Proponent must confirm whether the plants on site can be salvaged; if not, then the proponent can consider off site locations (e.g. WIFN sources). 223) Page 13 of 21: MNR Recommendation: The proponent must recognize that there will be a significant impact on natural heritage features. Mitigation measures should be sufficiently detailed to illustrate that the impact will be addressed through their implementation. Mitigation measures should bind the proponent to completing those actions.	220) The approach to management of climbing prairie rose will be confirmed during future design stages. 221) and 222) Sources for plants/plant material, be they local or imported, will be confirmed during future design stages. The first priority will be to salvage local plant/plant material. 223) The Landscape Plan, based on the use of ecological restoration principles and adaptive management techniques, is designed to offset impacts to species at risk and their habitat and rare vegetation communities.
			Summary of MNR Recommendations This project will have an impact on natural heritage features and their ecological functions. We note that the final footprint has resulted from a lengthy evaluation process where the initial steps considered and included avoidance of all identified provincially significant features. While the impacts to natural heritage features are locally intense on high value features, we require confirmation that the remaining factors are appropriately addressed and adequate, scientifically defensible mitigation measures are in place, which are binding on the proponent. An application for a permit under the Endangered Species Act, 2007 is in process. MNR recommends that the Landscape Plan includes a prioritization of mitigation action, with a focus on maintaining existing vegetation communities and SAR plants, followed by restoring degraded vegetation communities and finally the creation/establishment of new prairies. Monitoring efforts should also be outlined, as monitoring is required over the long-term to determine whether proposed mitigation measures have been effective. The ability to use adaptive management must be incorporated into the Landscape Plan due to the uncertainty of several of the proposed mitigation measures. We recommend that mobile species should be included in a secondary collective species specific management plan that integrates the avoidance, inventory and mitigation	**Summary of MNR Recommendations** The Landscape Plan, based on the use of ecological restoration principles and adaptive management techniques, is designed to offset impacts to species at risk and their habitat and rare vegetation communities. An application for an *Endangered Species Act, 2007* Permit is underway. The Landscape Plan will be further developed during future design stages. The Landscape Plan will be based on ecological restoration principles and adaptive management. As stated, the priority will be on protecting existing high quality vegetation communities, enhancing existing moderate quality vegetation communities and restoring low quality vegetation communities. A detailed monitoring plan will be developed during future design stages. In addition, species-specific management plans will be prepared.

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			techniques that will be applied on this project. **Clarifications:** The following comments are for those areas where we seek clarification: Section 3.2 Molluscs and Insects (pg 7) Confirmation is requested whether there are molluscs present in the study area watercourses, and whether these are species at risk or other sensitive species. Even though there are no known insect species at risk other than Monarch known from the study area, it is likely that there are insects of conservation concern in the study area based on the type of habitat and that there are insects of global conservation significance at the nearby Ojibway Prairie. Section 3.3 Fish and Fish Habitat (pg 8) We recommend that it be clarified in this section that there are no known fish species at risk in the watercourses in the study area, with the exception of the Detroit River which will not be directly impacted. Section 4.1.2 Existing Conditions: Species at Risk (pg 10) Please refer to Environment Canada for clarification to how species are regulated under the Schedules of the federal SARA. MNR requests that the area occupied by the footprint, the adjacent lands within 120 metres and the area beyond the 120 metres be calculated and inserted as appropriate. Clarify whether the numbers include those found in the inspection plaza. The last paragraph contains the description of the double counting. This is confusing and requires further explanation to determine the impacts to species at risk and whether the mitigation measures are adequate. MNR requests clarification on whether it is possible to be more accurately account for the species within each footprint. Table 2. Provincially Rare Vascular Plants Located within the Study Area (pg 11-12) The following errors are noted in table 2. • There is no such thing as a COSSARO status. COSSARO classifications automatically become regulated within 90 days after they are reported to the Minister. It would be useful to include the G-ranks of all the species (plants and other taxa) for which S-ranks are provided. This would identify whether any of the potentially-affected species that are not protected under SARA or the ESA are of global conservation concern. • Species tracked by NHIC (and therefore considered to be of "provincial conservation concern", often called "provincially rare") are based on more than	**Clarifications** Section 3.2 Molluscs and Insects (p. 7) The *"Draft Practical Alternatives Evaluation Working Paper – Natural Heritage" report (April 2008)* provides the specific details on the screening conducted for molluscs. As detailed in this report, investigations by US counterparts determined that there were likely no mollusc species at risk in the Detroit River. Our desktop investigations further indicate that there are no mollusc species at risk in the in-land watercourses in the study area, and this determination is based in part on consultation with mollusc experts. We are very confident that no mollusc species at risk occur in the study area. Agree that there are likely insects of conservation concern and global significance in the study area, however mitigation measures consider only impacts to Monarchs since this is the only species regulated by *SARA* and *ESA*. Section 3.3 Fish and Fish Habitat (p. 8) There are no known fish species at risk in the watercourses in the Area of Investigation, with the exception of the Detroit River which will not be directly impacted. Section 4.1.2 Existing Conditions: Species at Risk (p. 10) The application of the *Species at Risk Act* to this project will be determined in consultation with Environment Canada. The area of the footprint, adjacent lands within 120 m and the area beyond 120 m will be calculated and reflected in future documentation. The numbers include those found at the inspection plaza. Double-counting is the result of scale and will be refined on a site-specific basis once further design details are known. Table 2 Provincially Rare Vascular Plants Located within the Study Area (p. 11-12) COSSARO status will be removed in future documents. Hybrid plant species, such as *Rhus X pulvinata and Symphyotrichum X amethystinum* will be removed from Table 2 in future documentation.

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			S-ranks. Some species ranked S1, S2, or S3 are not tracked, for various reasons. One example is hybrids. Hybrids are usually rare and therefore often have a high S-rank, however they are not usually considered to be of conservation concern (since they are often sporadic, sterile, occur in disturbed habitats, and non-persistent). Also hybrids are often overlooked because they may be quite similar to one or both parental species. So Rhus X pulvinata and Aster X amethystinus (now called Symphyotrichum X amethystinum) are highly S-ranked but are not tracked by NHIC and not considered to be of provincial conservation concern and therefore should not be listed in Table 2. • As mentioned above, only native populations of tracked species are considered to be of provincial conservation concern. Several species listed in Table 2 are rare native Ontario plants but are almost certainly not native to Windsor; therefore, populations within the study area would not be of provincial conservation concern. E.g. Suaeda calceoliformis (native in Ontario only in Hudson and James Bay salt marshes) and Pinus rigida (native only in southeastern Ontario) are certainly not native in Windsor, and some or all of the following species may not be native either: Eupatorium altissimum (likely native only on Pelee Island), Rudbeckia fulgida, Vitis labrusca, Campsis radicans, Gleditsia triacanthos. Several of these species are commonly horticulturally and populations in the Windsor area are probably escapes from cultivation (though there is the possibility that some or all are native; more information needed). • NHIC has recently completed an extensive review of the list of tracked vascular plants. This involved reviewing the S-ranks of all tracked vascular plants and consultation with a number of active field botanists throughout the province. Based on this review several dozen species have been removed from the list of tracked plants and several dozen other species added to it. The consultants would not be aware of these changes, since (a) they were only finalized in the last couple of months; and (b) the changes are not yet incorporated into the database accessible via the NHIC web page (though they will be in a few weeks). • The following species listed in Table 2 are no longer considered to be of provincial conservation concern and are no longer tracked by NHIC. These species have mostly been removed from the list due to the accumulation of additional records over the past decade and they no longer meet the threshold for provincial conservation concern (generally 80 sites or fewer in the province). – *Agalinis tenuifolia* var. *macrophylla* (the variety is taxonomically disputed and – the full species is not provincially rare), – *Sporobolus compositus* var. *compositus,* – *Agrimonia parviflora,* – *Carex swanii,* – *Eupatorium purpureum* var. *purpureum,*	*Suaeda calceoliformis* was located in natural areas close to the Windsor Salt mine. *Pinus rigida* appeared to be planted. *Eupatorium altissimum, Rudbeckia fulgida, Vitis labrusca* and *Gleditsia triacanthos* were all found in natural areas and thus it was not possible to determine if they were cultivars or not. *Campsis radicans* was found in abandoned residential areas or adjacent to existing residential areas and it more than likely originated from cultivated stock. Updated NHIC tracked vascular plant species will not changed in further documentation. The status will be reflective of data available at the time that this report was initially completed. *Cercis canadensis* is listed locally as Rh - Rare, known only from historic (pre-1964) record in the *Draft Practical Alternatives Evaluation Working Paper – Natural Heritage* (2008). The Recommended Plan Vascular Plant Checklist Appendix B. did not include the local status of each species. Spelling mistakes in Table 2 of *Aletris farinose*, *Castanea dentate*, *Hypoxis hirsutae* and *Ptelea trifoliatae* will be corrected in future documentation to *Aletris farinosa, Castanea dentata, Hypoxis hirsuta* and *Ptelea trifoliata.*

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			– *Geum vernum,* – *Quercus palustris,* – *Strophostyles helvola*. • There are a few species listed in Appendix B (i.e. recorded in the Area of Investigation) which have been **added** to the NHIC list of tracked species and could be added to Table 2: – *Potentilla canadensis* (S2?), – *Cercis canadensis* (SX; has always been tracked by NHIC, however Windsor populations are certainly not native, though listed as native in Appendix B), – *Polygala sanguinea* (S3), – *Cirsium discolor* (S3), – *Elodea nuttallii* (S3). • There are a few spelling mistakes in Table 2: *Aletris farinos***e**, *Castanea dentat***e**, *Hypoxis hirsuta***e**, *Ptelea trifoliata***e**. Species-specific comments were provided to the consultant by MNR (email 05nov 2008 M. Oldham) on the species listed in an earlier version of this table. The spreadsheet is attached as Appendix A to this letter and should be incorporated into the documentation. To lend strength to the data collection / fieldwork, the individuals who completed the fieldwork must be identified. <u>Section 4.2 Existing Conditions: Molluscs and Insects (pg 13)</u> It should be clarified in the first paragraph that none of the SARA-listed snails occur in Ontario. The information provided suggests that there were two rare Gastropod species that might occur in the area based on information provided by the MNR. These species would be different than the Gastropods at risk under SARA. Clarify the term "important insect species". <u>Section 4.3 Existing Conditions: Fish and Fish Habitat (pg 13-14)</u> The statement that there is no critical habitat in the area is misleading in that there has been no critical habitat designated for SARA fish species anywhere in southern Ontario to date. Clarify the addition of the eleven species regulated under SARA as more than three Detroit River species are listed on the SARO List Regulation under the ESA. <u>Section 4.4 Wildlife and Wildlife Habitat (pg 14)</u> Clarify the meaning of wildlife habitat "units" and "significance". <u>Section 4.4.1 Golden-winged Warbler (pg 14)</u> We do not expect Golden-winged Warbler to be a breeding species in the vicinity. In the recent Ontario Breeding Bird Atlas (2001-2005), the closest possible breeding record of this species was at least 100 km from Windsor, and the closest confirmed breeding record was almost 300 km distant.	<u>Section 4.2 Existing Conditions: Molluscs and Insects (p. 13)</u> Agree. In future documents a clarification will be made to indicate that the *SARA*-listed snails do not occur in Ontario, and that the two rare gastropod species are not listed under *SARA* or *ESA*. "Important insect species" means insects of significance for one or more of the following reasons: • Insects that are ranked S1 to S3; • insects recently found in the Ojibway area that are new provincial or national records (and are mostly ranked SNR); • insects that are listed under *SARA* or *ESA*; and/or, • insects that are listed under the *Fish and Wildlife Conservation Act* as protected. Further details are provided in the "*Draft Practical Alternatives Evaluation Working Paper – Natural Heritage*" report (April 2008). <u>Section 4.3 Existing Conditions – Fish and Fish Habitat (p. 13-14)</u> Will acknowledge in future documentation that there is no KNOWN critical habitat for species at risk. In addition, the list of species at risk will be updated to reflect current status under SARA and ESA 2007 in future documentation. <u>Section 4.4 Wildlife and Wildlife Habitat (p. 14)</u> Each "unit" is a grouping of similar ELC habitat types. Many of the habitats found within some of the units contained features that are considered ecologically significant according to the criteria identified in the MNR's Significant Wildlife Technical Guide for Ontario (2000) <u>Section 4.4.1 Golden-winged Warbler (p. 14)</u> Agreed. We found no evidence of its presence during further searches in the 2008 field season.

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			Section 4.4.2 Red-headed Woodpecker (pg 15) Clarification is sought on the quantity of search effort in the "further investigations". MNR expected that Red-headed Woodpecker would be found as a breeding species. During the recent OBBA there were at least 15 atlas squares in Essex County alone with breeding evidence, including four in the Windsor area. The habitat in the vicinity of the DRIC footprint is suitable for this species. MNR requests the supporting information on the proponent's conclusions so that we may determine if adequate field work was undertaken or whether the population of Red-headed Woodpecker is in greater decline than thought. Section 4.4.3 Eastern Foxsnake (pg 15) Clarify that habitat will be lost for this species rather than "take up residence on adjacent lands…" Section 4.4.4 Butler's Gartersnake (pg 15) Current scientific thought indicates that Butler's Gartersnake may also hibernate in available mammal burrows. Lost hibernacula will impact loss of hibernating individuals. This last statement would be true for all species of snakes. Butler's Garternsnake's home range has been identified as 300m. Clarify the measurement of home range (i.e. area or length). Section 4.4.5 Migratory Birds (pg 16) Clarify which of the three of about 12 species of waterfowl species are known to use the Detroit River as a staging area and flyway. Section 6.5.2.1 Potential Environmental Effects: Contamination of Vegetation Communities (pg 35) To better assist MNR's understanding, please clarify as to why is lightning is included as a potential impact to natural heritage as a result of the project. Section 6.5.2.2 Environmental Protection Measures (pg 36) The report identifies that 120 hectares of land have been targeted for restoration. The following information on 120 hectares is requested: location, number of parcels, adequacy of moisture required to support the communities targeted for restoration. Please clarify the following term: "native and non-invasive plant materials"; specifically, does this mean native species that are not invasive, or native species as well as non-native species that are not invasive?	Section 4.4.2 Red-headed Woodpecker (p. 15) In discussions with the local biologist in the Windsor area, the closest Red-headed Woodpecker sightings to the study area were recorded several years ago in the Brunet Park/LaSalle Woods area and at David Maxwell Public School. These locations are outside of this study area. Numerous early morning searches were performed within the preferred habitats of this species in April and May, 2008. Contacts were made with local birders and biologists to verify our lack of sightings of this species. We agree that this species is declining more than thought. It is being out competed by the Red-bellied Woodpecker which is nesting in Windsor. Section 4.4.3 Eastern Foxsnake (p. 15) Habitat for Eastern Foxsnake will be lost. Section 4.4.4 Butler's Gartersnake (p. 15) The movement data collected for this species in 2008 verified previous research that its home range is 30-50 m or less. The 300 m is the maximum distance individuals will travel periodically. The 2008 study showed these larger movements were done by the juveniles. Section 4.4.5 Migratory Birds (p 16) According to the LPWWRF satellite tracking database, Greater Scaup, Lesser Scaup and Tundra Swan are the three recorded species using the Detroit River as a staging area and flyway. Section 6.5.2.1 Potential Environmental Effects: Contamination of Vegetation Communities (p. 35) The statement is that fire, as a result of human activity or lightning, could cause an impact to vegetation and vegetation communities. Section 6.5.2.2 Environmental Protection Measures (p. 36) The following information on 120 hectares: location, number of parcels, adequacy of moisture required to support the communities targeted for restoration will be investigated in latter design phases. "Native and non-invasive plant materials" refers to native species as well as native species that are non-invasive. The sentence structure was trying to convey the idea that we are trying to restore diverse native vegetation communities that are not completely dominated by one competitive native species.

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			Section 6.5.2.2 Environmental Protection Measures: (pg 36) *Vegetation Removal Timing Window (pg 36-37)* This timing window provided in this section may avoid impacts on several wildlife species; however, if hibernacula are present, may impact hibernating snakes. *Introduction of Exotic Species (pg 37)* Further information is requested to clarify why only native species can be used and whether the introduction of exotic species is reasonable. *Seeding (pg 39)* The information provided here is contradictory regarding timing of seeding – both spring and fall are mentioned as preferred. Also, the text states that only local seed from adjacent land should be use, yet there is also reference to getting seed from Walpole Island. *Plugs (pg 39)* Request clarification on whether any of the species affected would benefit from the plug option. *Soil Management (pg 44)* Please provide supporting evidence that herbicides kill seeds. MNR is of the understanding that herbicides act on growing plants. Additional information is requested, as native prairie seeds may be present and impacted. *Roadside Plantings (pg 44)* The term 'safe harbour' should not be used as it has ESA 2007 connotations.	Section 6.5.2.2 Environmental Protection Measures (p. 36) *Vegetation Removal Timing Window (p. 36-37)* It is difficult to find a timing window that benefits all species. *Introduction of Exotics (p. 37)* Only native species should be used since the intention of the landscape plan was to create a naturalized landscape that only used native species. Exotic species are only to be used for screenings and unsuitable habitat for native species, such as areas exposed to road salts. If non-native shrubs and trees are used for landscaping, only species that do not self propagate, invade or sterilize soils should be used. *Seeding (p. 39)* Agreed, the preferred timing of seeding is contradictory in this section, spring vs. fall. The objective in this section was to leave the seeding open to two times of year to allow seeding to occur with greater flexibility. The direct quote was "Seed of native prairie species should be collected from within the Recommended Plan, the adjacent lands within 120 m of the Recommended Plan, from the nature reserve and immediate area around it." Where there is limited seed supply for certain species within the above local areas, Walpole Island is a possible location to gather seed. *Plugs (p. 39)* Yes, some of the species affected would benefit from the plug option. This will be further discussed in latter design stages. *Soil Management (p 44)* Agreed, herbicides do not kill off seeds. The text should have been written as follows: The preference would be to not re-use soils where possible. If soils are to be re-used pre-emergent herbicides, such as glyphosate should be used to treat the soils pr-emergence. Pre-emergent herbicides are chemicals that are applied before weeds emerge. They act by (i) killing weed seedlings and /or (ii) establishing a layer of chemical on or near the soil surface that is toxic to germinating seeds and young seedlings. Post-emergent herbicides, such as atrazine should be applied to growing plants in the stockpile post emergence, since they kill actively growing herbaceous plants. *Roadside Plantings (p. 44)* Safe harbour will be changed to safe natural area.

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			Section 6.5.2.3 Monitoring and Follow up (pg 45) Monitoring in the second paragraph needs to be expanded. In regards to photomonitoring, the description of monitoring here and elsewhere in the document is extremely weak as there are no descriptions of the methods, protocols, frequency, etc. Section 6.5.3.1 Road Salt Runoff/ Spray: Potential Environmental Effects (pg 46) This section does not recognize the potential invasion of halophytic invasive species as an impact. Furthermore, the description of monitoring does not clarify how the impacts of salt will be assessed. Section 6.6.2.2 Monarch: Environmental Protection Measures (pg 49) Monarch received considerable attention in this report. The primary threats to Monarch populations are associated with their overwintering areas and not with habitat features found in North America. As a result, impacts to Monarchs and/or their habitat within the footprint of this project are minimal with respect to the species persistence in Ontario. It is not clear why there is discussion about Canadian Food Inspection Agency regulations and the Emerald Ash Borer included here. Clarification on why mowing is targeted for spring and fall seasons and not summer is requested. Management plan for ecological communities and species should include mowing. The statement that the environmental protection measures for Monarch will also reduce potential impacts to other insect species is not supported by the information provided to date. As there is a lack of information on the presence / absence of other insect species, it is difficult to correlate that the protection of Monarch habitat protects the habitat requirements of other insect species. Section 6.6.2.3 Monarch: Follow up and Monitoring (pg 50) Follow up and monitoring should be required if environmental protection measures are to be implemented. Without follow-up and monitoring, effectiveness cannot be determined. Section 6.7.1.1 Encroachment on Fish Habitat (pg 51) The creation of barriers to fish movement as a result of water crossings needs to be added as an additional encroachment.	Section 6.5.2.3 Monitoring and Follow up (p. 45) Monitoring plans will be worked out in greater detail during future design stages. Section 6.5.3.1 Road Salt Runoff/Spray: Potential Environmental Effects (p. 46) The potential and probable invasion of halophytic species along the Recommended Plan will be further discussed in future documents. Agreed, the monitoring section will be altered to clarify how the impacts of salt will be assessed in future documents. Section 6.6.2.2 Monarch: Environmental Protection Measures (p. 49) Agree. The primary threats to Monarchs are associated with their wintering habitat. However, it is prudent to provide a discussion on local mitigation measures for the Monarch since it is regulated under SARA and ESA, and many measures are relatively easily implemented since they are already being done for other species at risk. The discussion on CFIA and EAB was placed in this section as many exotics/invasives are invertebrates and many native insects are impacted by introduced species. For future documents, consideration will be made to placing this section under another heading to generally address the introduction of exotics/invasives. Limiting mowing of vegetation from June to September will reduce impacts to the Monarch as they are typically feeding and residing on host plants (milkweed and nectar flowers) during this period. Direct mortality and indirect mortality through loss of food and shelter, will be lessened if host plants are not cut during this period. The statement regarding Monarch environmental protection measures benefiting other insects will be revised or removed in future documents. Section 6.6.2.3 Monarch: Follow up and Monitoring (pg 50) Since all the mitigation for Monarchs is derived from mitigation for other species at risk, Monarch specific follow-up and monitoring is not needed. Consideration will be made towards including consideration of Monarchs in the follow-up and monitoring of other species at risk mitigation that is applicable to Monarchs. Section 6.7.1.1 Encroachment on Fish Habitat Barriers to fish movement are addressed as a separate impact in section 6.7.3.

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			Section 6.7.3.2 Barriers to Fish Passage: Environmental Protection Measures (pg 59) The options to facilitate fish passage are challenging. MNR requests to be kept informed in this discussion. Section 6.7.4.3 Monitoring and Follow-up (pg 62) The text implies that monitoring will ensure that fish habitat will not be altered. It should state that the monitoring program will allow early identification of any problems that develop so they can be rectified before further damage to fish habitat occurs. Section 6.8.2.2 Encroachment on Wildlife Habitat: Environmental Protection Measures (pg 66) - Displacement of Wildlife Habitat (pg 66) Please discuss the use of the term 'critical habitat' with Environment Canada. Section 6.8.3.1 Wildlife Mortality: Potential Environmental Effects (pg 67) The following statement "wildlife species at risk are intimidated by vehicular traffic and avoid it" requires further clarification as road mortality is a major threat to many species at risk (e.g. herptiles). Section 6.8.3.2 Wildlife Mortality: Environmental Protection Measures (pg 67-68) Supporting information is required on the following statement "…tunnels on the Windsor-Essex Parkway will function as overpasses for wildlife.". They may function as overpasses, but it is very dependent on how the overpass is naturalized (i.e. amount of cover for wildlife) and where they are located. For example, are the overpasses at existing corridors and are humans and wildlife to use the same overpasses? Please see comments for exclusion fencing above for Section 6.9.3.3 Eastern Foxsnake: Monitoring and Follow-up as it states in this section that" Exclusion fencing at selected locations April 1 – Oct 31 to prevent wildlife, including snakes from entering work zone." "Wildlife salvage will be carried out…". Clarification on the individual needed to effectively undertake the wildlife salvage efforts. MNR Request for Clarification: Confirm individuals responsible for wildlife salvage efforts. Section 6.9.1 Species at Risk: Environmental Standards and Practices (pg 74) No protection is given to special concern species under the ESA 2007. Second sentence identifies that the ESA 2007 "prohibits the killing (section 9)…". • S.9 of the ESA 2007 prohibits more than the killing of threatened, endangered or extirpated species. Legally, it prohibits the following: kill, harm, harass, capture or take, possess, transport, collect, buy, sell, lease or trade of those species listed as threatened, endangered or extirpated on the SARO List.	Section 6.7.3.2 Barriers to Fish Passage: Environmental Protection measures (p. 59) The DRIC study team will keep MNR informed of ongoing discussions with DFO regarding fish passage. Section 6.7.4.3 Monitoring and Follow-up (p. 62) Will add statement to such effect in future documents. Section 6.8.2.2 Displacement of Wildlife Habitat (p. 66) The term critical habitat is used in this report as the habitat necessary for the survival or recovery of a species at risk. Section 6.8.3.1Wildlife Mortality, Potential Environmental Effects (p. 67) This sentence is only partly true. More secretive wildlife species tend to avoid developed areas, such as highways, while other species are attracted to highways, which can often serve as wildlife corridors. Section 6.8.3.2 Wildlife Mortality, Environmental Protection Measures (p. 67-68) Different tunnels will be designed with different purposes. Several of the tunnels will be designed to facilitate wildlife passage between natural areas. Exclusion fencing should be monitored from April 1 to October 31 when wildlife activity is at its highest. Wildlife salvage will be performed by qualified wildlife biologists. Section 6.9.1 Environmental Standards and Practices (p. 74) The wording used in Section 9 of the ESA 2007 will be used in future documents.

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			• Further on in S.6.9 the full prohibitions of the SARA have been identified. • Therefore, MNR recommends that the proponent use the wording identified in S.9 of the ESA 2007. Section 6.9.2.1 Butler's Gartersnake: Potential Environmental Effects: (pg 75) The Butler's Gartersnake population breakdown should be clarified; specifically the Amherstburg to Point Edward populations have not been continuous for decades. With small home ranges (~300 metres), the population could be broken into an Essex County population, a Walpole Island population, a Bickford Oak Woods Complex population and a Sarnia/Point Edward population. Table 8 Potential Environmental Effects for Vascular Plant Species at Risk (pg 80) Confirmation is requested on the number of sites for Climbing Prairie Rose in southwestern Ontario. We believe there are more than 12. Though the fact that none of the Shumard Oak will be removed, they may be impacted by salt, particulate pollution and water table changes. As such, we request clarification on how the impact to Shumard Oak was determined to be "negligible". Section 6.9.4.2 Vascular Plants: Environmental Protection Measures (pg 84) Clarification requested on the intent of mitigation through integration. Table 10, Environmental Protection Measures for Threatened Vascular Plant Species Displaced by the Recommended Plan (pg 85-86) • Habitat management has been suggested for two species of special concern yet not for the three threatened prairie species. • There is uncertainty as to whether transplants of Colic-root will be successful. • We concur with the approach for Common Hop-tree and Dwarf Hackberry. Table 11, Monitoring Requirements for Vascular Plant Species at Risk (pg 87) This table is a mixture of monitoring requirements and management activities. On-going management activities to ensure survival are listed, but are not included in the environmental protection measures in the previous tables. Clarity is sought to confirm whether only those monitoring requirements are those that the proponent will pursue or whether other obligations in the report will also be binding. Section 6.10 Encroachment on Designated Natural Areas (pg 89-91) Brief descriptions are provided for each of the designated natural areas, with the exception of the St. Clair College Prairie. A number of these areas are within the adjacent lands or "beyond" the Area of Interest (AOI) and "no significant adverse effect" is anticipated. Supporting information is requested to support this statement; specifically the indirect effects of salt, runoff, particulate matter, ozone, and other impacts needs to be provided. The statement there will be "no significant adverse effect on the primary ecological functions of this designated natural area" is not fully supported by the information in the	Section 6.9.2.1 Butler's Gartersnake: Potential Environmental Effects (p. 75) Agree that the populations are so fragmented that they could now be independent of each other. There is however, no data over the last 30 years on any of the populations for which clarification is being sought. This study is the first to accurately portray a Butler's Gartersnake population. Home range size explained above. Table 8 Potential Environmental Effects for Vascular Plant Species at Risk (p. 80) According to survey data gathered by the Ontario Ministry of Natural Resources (Woodliffe 2002), we now have information on 104 sites for Climbing Prairie Rose in Ontario. The impact to Shumard Oak was determined to be negligible because of the distance from the Windsor-Essex Parkway footprint. Yes, it is probable that the Shumard Oak will be impacted by salt, particulate pollution and water table changes. Section 6.9.4.2 Vascular Plants: Environmental Protection Measures (p. 84) The intent is to integrate the species at risk into the design/site plan to the extent possible, so as to avoid its removal. Table 10 Environmental Protection Measures for Threatened Vascular Plant Species Displaced by the Recommended Plan (p. 85-86) Habitat management is needed for the three threatened prairie species and it will be further described in latter design stages. Detailed habitat management techniques are suggested for the threatened species within the ESA permits. Agreed, it is uncertain whether colic-root transplants will be successful or not. It is one of the transplantation and mitigation techniques that are further outlined within the ESA permits. Table 11 Monitoring Requirements for Vascular plant Species at Risk (p. 87) Monitoring requirements from Table 11 and other obligations in the report will apply. Mitigation and monitoring sections from the ESA permits will apply to displaced regulated species. Section 6.10 Encroachment on Designated Natural Areas (p. 89-91) The designated natural area is located a sufficient distance from the DRIC study that indirect effects such as salt, runoff, particulate matter, ozone and other impacts are not considered significant. This does not imply that there are no effects. The primary ecological functions are identified for each

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			report. To reliably assess whether the primary ecological functions will be adversely affected, these functions need to be first identified and their continued ability to operate after the disturbance needs to be assessed. Neither has been done in this document. We request that the proponent confirm the confidence level for this statement for each of the Designated Natural Areas. Section 6.10.2.3 Ojibway Park (pg 89) The report states that the project will displace 0.64 ha of Ojibway Park; while Table 12 indicates it will displace 0.51 ha of this natural area. Please clarify if this is a discrepancy or whether the impact has been minimized. Section 6.10.2.17 Provincially Significant Wetlands (93) The Ojibway Prairie Wetland Complex, a new Provincially Significant Wetland, has been forwarded to the Ministry of Transportation. Appendix B "List of Vascular Plants Recorded in the Area of Investigation" There is no indication of how vascular plant identifications were made or verified for the study. Appendix B lists 648 vascular plants recorded in the study area. It does not say who recorded them or when were they were recorded. For botanical field studies such as this it is usually customary to collect voucher specimens of difficult-to-identify species and to verify unusual records. There is no mention that specimens were collected, or if so, where they are deposited (normal practice is to deposit voucher specimens in an institutional herbarium where they will be accessible to others who may wish to verify the identifications). It would be useful to indicate in Appendix B if voucher specimens were collected, who identified them (if verified by a specialist) and where they are deposited. To my knowledge a number of the species listed (including some rare ones) have not been previously recorded in the Windsor area and it would be nice to have additional documentation of these records (e.g. *Carex trichocarpa, Pycnanthemum verticillatum var. pilosum, Aster shortii*). **Editorial Comments:** The following are editorial comments for consideration: • Table 2 (pg 11): Scientific names of Colic-root, American Chestnut, and Common Hop-tree are misspelled. For example, Common Hop-tree scientific name is *Ptelea trifoliata*. (e.g. Section 4.1.2 (pg 10) and S 6.9.4 SAR Vascular Plants (pg 79)) • Section 4.3 (pg 13): Chubs are minnows. • Section 4.4 (pg 14): Red-headed Woodpecker has been designated as Threatened by • COSEWIC and will be considered for listing as such under SARA. • Section 4.5 Designated Natural Areas (pg 17): Chatham District should be Aylmer District. Chatham Area is part of Aylmer District.	designated natural area located within the footprint or on adjacent lands based on the various background studies for ANSIs, ESAs and CNHSs. The primary ecological functions for which the area was defined will be maintained unless noted otherwise. Section 6.10.2.3 Ojibway Park (p. 89) The project will displace 0.51 ha of Ojibway Park as indicated in Table 12. Section 6.10.2.17 Provincially Significant Wetlands (p. 93) MTO acknowledges receipt of the Ojibway Prairie Wetland Complex information. Appendix B: List of Vascular Plants Recorded in the Area of Investigation All unknown or unsure of specimens were collected and identified by four botanists in 2006. One additional botanist took part in 2008. None of them will be deposited anywhere. They were not pressed for that purpose. They were pressed for identification. **Editorial Comments** The editorial comments are acknowledged and will be taken into consideration in future documentation.

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			• Section 6.6.2 Monarch (pg 48): "*Asclepias* sp." should be "*Asclepias* spp.". • Section 6.8.1.3 Interference with Noteworthy Species and Habitat (pg 65): it is implied that the only noteworthy species are species at risk. • Section 6.8.1.3 Potential Environmental Effects (pg 67): We request confirmation on the swallows (e.g. Cliff Swallows) nesting above Turkey Creek. Are they Cliff Swallows? • Section 6.9.1 Environmental Standards and Practices (pg 74, para 3, line15): "…Windsor-Essex Parkway will entail killing or damaging the habitat of threatened species, a…" • Appendices: We suggest that the proponent include G-ranks for all S-ranked species, and remove reference to COSSARO status or change COSSARO status to Ontario status. Appendix B: • The following spelling must be corrected: *Ptelea trifoliatae*, *Vernonica missurica, Carex foena*, *Hypoxis hirsutae*. • *Cornus amomum* ssp. *obliqua* is the same as *Cornus obliqua* (both are listed), *Dichanthelium acuminatum* var. *acuminatum* is the same as *Panicum acuminatum* var. *acuminatum* (both are listed) • *Crepis capillaris* is introduced (not native to North America) and must be indicated as such. • *Festuca rubra* ssp. *rubra* and *Poa compressa* are almost certainly not native to Windsor. This may be reflected by the asterisks in the first column. Clarification is sought on whether it means introduced to the study area, introduced to Ontario, or introduced to North America. • *Vernonia gigantea* and *Vernonia missurica* both have asterisks after their name, though it is not indicated what this means (both are presumably native). • *Phragmites australis* is listed as native, though most, if not all, populations in the study area are probably of the European form. Appendix D: • Scientific names for Spotfin Shiner (*Notropis spiloptera*) and White Sucker (*Catostomus commersonii*) are spelled incorrectly. We are unaware of any valid records for Spotted Gar, River Redhorse, or Smallmouth Buffalo from the Michigan or Ontario sides of the Detroit River. • Fourhorn Sculpin is a marine species with a few freshwater populations in the Arctic Archipelago; please confirm if this is the Deepwater Sculpin (*Myoxocephalus thompsonii*. • Banded Killifish has been designated as Not at Risk by COSEWIC and in Ontario.	

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			Appendix Ea: Proposed Right-of-way and 120 m line are transposed in the legend. Appendix F: • Sranks should be included in this appendix • Explanation required for 'Local' column and 'BSC' within it. • Snapping Turtle has recently received a COSEWIC designation of Special Concern. • Western Chorus Frog, Northern Leopard Frog, and Dekay's Brown Snake have been identified by COSEWIC and NHIC as Not at Risk. • Red-headed Woodpecker has COSEWIC designation of Threatened. **Environmental Assessment Report:** The following comments are in addition to the review on the *Natural Heritage Impact Assessment – Recommended Plan* and are specific to the Environmental Assessment Report (December 2008). <u>Section 4.4 Contaminated Properties and Waste Management (pg 4-12), Section 9.3.12 Utilities (pg 9-27) and Section 10.2.6 Waste and Waste Management (pg 10-12)</u> We request confirmation on whether the storage of propane/butane/ natural gas liquids at nearby storage facility has been specifically considered in the risk assessment. The volumes of storage at the BP Windsor facility are substantial. Please confirm that this has been completed in the risk assessment. <u>Section 10.6 Commitments to Future Work</u> We request clarification on whether commitments to future work cover the subsequent design stages of the project and / or into the construction stage and beyond. For example, monitoring SAR for impacts due to project. <u>Section 11.3 Permits/ Approvals Required</u> The following change is requested: Permit under **section 17** of the *Endangered Species Act*, 2007.	**Environmental Assessment Report:** <u>Section 4.4 Contaminated Properties and Waste Management (pg 4-12), Section 9.3.12 Utilities (pg 9-27) and Section 10.2.6 Waste and Waste Management (pg 10-12)</u> 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. <u>Section 10.6 Commitments to Future Work</u> The commitments to future work documented in Section 10.6 of the EA Report apply primarily to the construction stage. Details on species at risk will be documented in the ESA 2007 Permit. <u>Section 11.3 Permits/Approvals Required</u> Acknowledged. This change has been incorporated into an Errata document for the EA Report.