

## **Potential conditions under the *Canadian Environmental Assessment Act, 2012***

The Impact Assessment Agency of Canada is contemplating the following potential conditions in relation to the Milton Logistic Hub Project (the Designated Project) located in Ontario for recommendation to the Minister of Environment and Climate Change (the Minister) for inclusion in a Decision Statement issued under the *Canadian Environmental Assessment Act, 2012*. If the Minister decides that the carrying out of the Designated Project is unlikely to cause significant adverse environmental effects as defined under subsections 5(1) and 5(2), or if the Minister decides that the Designated Project is likely to cause significant adverse environmental effects and the Governor in Council decides such effects are justified in the circumstances, the Designated Project would be allowed to proceed, and any conditions established by the Minister under the *Canadian Environmental Assessment Act, 2012* would become legally binding.

Pursuant to section 184 of the *Impact Assessment Act*, a Decision Statement issued by the Minister under subsection 54(1) of the *Canadian Environmental Assessment Act, 2012* is deemed to be a Decision Statement issued under subsection 65(1) of the *Impact Assessment Act*, other than for the purposes of section 70.

### **1 Definitions**

- 1.1 *Adaptive management* means a planned and systematic process for continuously improving environmental management practices by learning about their outcomes.
- 1.2 *Agency* means the Impact Assessment Agency of Canada.
- 1.3 *Baseline* means the environmental conditions prior to initiating construction of the Designated Project.
- 1.4 *Canadian Transportation Agency* means the Canadian Transportation Agency as established under section 6 of the *Canada Transportation Act*.
- 1.5 *Construction* means the phase of the Designated Project during which the Proponent undertakes the site preparation, building or installation of any components of the Designated Project, including periods during which these activities may temporarily cease.
- 1.6 *Days* means calendar days.
- 1.7 *Daytime* means from one hour before sunrise to one hour after sunset, as calculated by the National Research Council of Canada for Hamilton (Ontario).
- 1.8 *Designated Project* means the Milton Logistic Hub Project as described in section 3.3 of the Joint Review Panel Report (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985).
- 1.9 *Designated Project Development Area* means the immediate area in which Designated Project activities and components may occur and within which direct physical disturbance, temporary or permanent, may occur because of the Designated Project, defined as the “Project Development

Area” in figure 1-2 of the Joint Review Panel Report (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985).

- 1.10 *Environment and Climate Change Canada* means the Department of the Environment as established under subsection 2(1) of the *Department of the Environment Act*.
- 1.11 *Environmental assessment* means “environmental assessment” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.12 *Environmental effects* means “environmental effects” as described in section 5 of the *Canadian Environmental Assessment Act, 2012*.
- 1.13 *Environmental impact statement* means the December 2015 document entitled *Environmental Impact Statement – Milton Logistic Hub* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57).
- 1.14 *Fish* means “fish” as defined in subsection 2(1) of the *Fisheries Act*.
- 1.15 *Fish habitat* means “fish habitat” as defined in subsection 2(1) of the *Fisheries Act*.
- 1.16 *Fisheries and Oceans Canada* means the Department of Fisheries and Oceans as established under subsection 2(1) of the *Department of Fisheries and Oceans Act*.
- 1.17 *Follow-up program* means “follow-up program” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.18 *Full operational capacity* means the planned maximum capacity of containers that the Designated Project is designed to handle.
- 1.19 *Heritage value* means the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations.
- 1.20 *Joint Review Panel Report* means the report submitted on January 27, 2020 by the Joint Review Panel established by the Federal Minister of Environment and Climate Change and the Chair of the Canadian Transportation Agency (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985).
- 1.21 *Listed species at risk* means a species that is listed on the List of Wildlife Species at Risk set out in Schedule 1 of the *Species at Risk Act*.
- 1.22 *Migratory bird* means “migratory bird” as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*.
- 1.23 *Mitigation measures* means “mitigation measures” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.24 *Offsetting plan* means “offsetting plan” as described in Schedule 1 of the *Authorizations Concerning Fish and Fish Habitat Protection Regulations*.

- 1.25 *Operation* means the phase of the Designated Project starting when the Designated Project begins receiving containerized goods for handling by truck and train, including periods during which these activities may temporarily cease.
- 1.26 *Potentially affected party* means a party that may be potentially affected by the Designated Project and that is identified as such by the Proponent pursuant to condition 3.1.
- 1.27 *Progressive reclamation* means reclamation which is carried out by the Proponent concurrently with all phases of the Designated Project to progressively return any physically disturbed areas to a state as close to the baseline as possible, as soon after the disturbance as practical.
- 1.28 *Proponent* means Canadian National Railway Company and its successors or assigns.
- 1.29 *Qualified individual* means someone who, through education, experience and knowledge relevant to a particular matter, provides the Proponent with advice within their area of expertise. Knowledge relevant to a particular matter may include community and Indigenous knowledge.
- 1.30 *Record* means “record” as defined in subsection 2(1) of the *Canadian Environmental Assessment Act, 2012*.
- 1.31 *Regional storm event* means a precipitation event that defines the extent of a riverine flood hazard in a given area.
- 1.32 *Relevant authorities* means federal and/or provincial authorities and/or municipal authorities that are in possession of specialist or expert information or knowledge, or that have a responsibility for the administration of a law or regulation, with respect to the subject matter of a condition set out in this document.
- 1.33 *Reporting year* means July 1 of a calendar year through June 30 of the subsequent calendar year.
- 1.34 *Stormwater management system* means a surface drainage collection system that consists of storm sewers, culverts, drainage ditches and stormwater management ponds and that temporarily detains stormwater and releases it gradually to manage the quality and quantity of stormwater run-off.
- 1.35 *Structure, site or thing of historical, archaeological, paleontological or architectural significance* means a structure, site or thing that is determined by a qualified individual, on the basis of heritage value, to be associated with an aspect of the history or culture of the people of Canada, including Indigenous groups.
- 1.36 *Wetland* means land that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment and as further defined in the Canadian Wetland Classification System.
- 1.37 *Wetland functions* means the natural processes and derivation of benefits and values associated with wetland ecosystems, including economic production, fish and wildlife habitat, organic carbon storage, water supply and purification (e.g. groundwater recharge, flood control, maintenance of

flow regimes, shoreline erosion buffering), and soil and water conservation, as well as tourism, heritage, recreational, educational, scientific, and aesthetic opportunities.

## **Potential Conditions**

These conditions may be established for the sole purpose of the Decision Statement issued under the *Canadian Environmental Assessment Act, 2012*. They do not relieve the Proponent from any obligation to comply with other legislative or other legal requirements of the federal, provincial, or local governments. Nothing in this document shall be construed as reducing, increasing, or otherwise affecting what may be required of the Proponent to comply with all applicable legislative or legal requirements.

## **2 General conditions**

- 2.1 The Proponent shall ensure that its actions in meeting the conditions set out in this document during all phases of the Designated Project are considered in a careful and precautionary manner, promote sustainable development, are informed by the best information and knowledge including community and Indigenous knowledge, available at the time the Proponent takes action, are based on methods and models that are recognized by standard-setting bodies, are undertaken by qualified individuals, have applied the best available economically and technically feasible technologies to achieve continuous improvement and meet all engineering requirements for safe railway and facility operation.
- 2.2 The Proponent shall carry out the Designated Project as defined in condition 1.8 of this document.
- 2.3 The Proponent shall, when mitigation is a requirement of a condition set out in this document, give preference to avoiding the adverse environmental effect of the Designated Project over minimizing the adverse environmental effect of the Designated Project. If unable to avoid the adverse environmental effect, the Proponent shall give preference to minimizing the adverse environmental effect of the Designated Project over compensating for the adverse environmental effect of the Designated Project. If unable to minimize the adverse environmental effect, the Proponent shall compensate for the adverse environmental effect of the Designated Project.
- 2.4 The Proponent shall ensure that its actions in meeting the conditions set out in this document are taken in a way that is consistent with any applicable recovery strategy and action plans for listed species at risk.

## **Consultation**

- 2.5 The Proponent shall, where consultation is a requirement of a condition set out in this document:
  - 2.5.1 provide a written notice of the opportunity for the party or parties being consulted to present their views and information on the subject of the consultation;
  - 2.5.2 provide all information available and relevant to the scope and the subject matter of the consultation and a period of time agreed upon with the party or parties being consulted, not to be less than 15 days, to prepare their views and information;

- 2.5.3 undertake an impartial consideration of all views and information presented by the party or parties being consulted on the subject matter of the consultation; and
  - 2.5.4 advise in a timely manner the party or parties being consulted on how the views and information received have been considered by the Proponent, including a rationale for why the views have, or have not, been integrated.
- 2.6 The Proponent shall, where consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and/or the Huron-Wendat Nation is a requirement of a condition set out in this document, communicate with each group with respect to the manner to satisfy the consultation requirements referred to in condition 2.5, including methods of notification, the type of information and the period of time to be provided when seeking input, the process to be used by the Proponent to undertake impartial consideration of all views and information presented on the subject of the consultation, and the period of time and the means to advise groups of how their views and information were considered by the Proponent.

***Follow-up and adaptive management***

- 2.7 The Proponent shall, where a follow-up program is a requirement of a condition set out in this document, determine, as part of the development of each follow-up program and in consultation with the party or parties being consulted during the development, the following information:
- 2.7.1 the methodology, location, frequency, timing and duration of monitoring associated with the follow-up program;
  - 2.7.2 the scope, content and frequency of reporting of the results of the follow-up program;
  - 2.7.3 the frequency at which the follow-up program must be updated;
  - 2.7.4 the levels of environmental change relative to baseline that would require the Proponent to implement modified or additional mitigation measure(s), including instances where the Proponent may require Designated Project activities to be stopped; and
  - 2.7.5 the technically and economically feasible mitigation measures to be implemented by the Proponent if monitoring conducted as part of the follow-up program shows that the levels of environmental change referred to in condition 2.7.4 have been reached or exceeded.
- 2.8 The Proponent shall update the information determined for each follow-up program pursuant to condition 2.7 during the implementation of each follow-up program, at the minimum frequency determined pursuant to condition 2.7.3 and in consultation with the party or parties being consulted during the development of each follow-up program.
- 2.9 The Proponent shall provide the follow-up programs referred to in conditions 4.5, 4.10, 4.20, 5.9, 5.10, 5.13, 6.3, 6.10, 7.12, 8.4, 8.11, 8.14, 8.22, 8.26, 8.29, 8.33, 9.1 and 9.3 to the Agency and to the party or parties being consulted during the development of each follow-up program prior to the implementation of each follow-up program. The Proponent shall also provide any update made pursuant to condition 2.8 to the Agency and to the party or parties being consulted during the development of each follow-up program within 30 days of the follow-up program being updated.
- 2.10 The Proponent shall, where a follow-up program is a requirement of a condition set out in this document:

- 2.10.1 implement the follow-up program according to the information determined pursuant to condition 2.7;
  - 2.10.2 conduct monitoring and analysis to verify the accuracy of the environmental assessment as it pertains to the particular condition and/or to determine the effectiveness of any mitigation measure;
  - 2.10.3 determine whether modified or additional mitigation measure(s) are required based on the monitoring and analysis undertaken pursuant to condition 2.10.2; and
  - 2.10.4 if modified or additional mitigation measures are required pursuant to condition 2.10.3, develop and implement these mitigation measure(s) in a timely manner and monitor them pursuant to condition 2.10.2.
- 2.11 Where consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and/or the Huron-Wendat Nation is a requirement of a follow-up program, the Proponent shall discuss the follow-up program with each group and shall determine, in consultation with each group, opportunities for their participation in the implementation of the follow-up program, including the conduct of monitoring, the analysis and reporting of follow-up results and whether modified or additional mitigation measure(s) are required, as set out in condition 2.10.

***Annual reporting***

- 2.12 The Proponent shall, commencing in the reporting year during which the Minister issues the Decision Statement for the Designated Project, prepare an annual report that sets out, for that reporting year:
- 2.12.1 the activities undertaken by the Proponent to comply with each of the conditions set out in this document;
  - 2.12.2 how the Proponent complied with condition 2.1;
  - 2.12.3 for conditions set out in this document for which consultation is a requirement, how the Proponent considered any views and information that the Proponent received during or as a result of the consultation;
  - 2.12.4 the information referred to in conditions 2.7 and 2.8 for each follow-up program;
  - 2.12.5 the results of the follow-up program requirements identified in conditions 4.5, 4.10, 4.20, 5.9, 5.10, 5.13, 6.3, 6.10, 7.12, 8.4, 8.11, 8.14, 8.22, 8.26, 8.29, 8.33, 9.1 and 9.3;
  - 2.12.6 for any plan that is a requirement of a condition set out in this document, any updates to the plan made;
  - 2.12.7 any modified or additional mitigation measure implemented or proposed to be implemented by the Proponent, as determined pursuant to condition 2.10; and
  - 2.12.8 any change to the Designated Project for which the Proponent determined that condition 2.18 did not apply.
- 2.13 The Proponent shall submit to the Agency the annual report referred to in condition 2.12, including a plain language executive summary in both official languages, no later than October 31 following the reporting year to which the annual report applies.

### ***Information sharing***

- 2.14 The Proponent shall publish on the Internet, or any medium which is publicly available, the annual reports and the executive summaries referred to in conditions 2.12 and 2.13, the air pollutant emissions reduction plans referred to in conditions 4.16 and 4.17, the final offsetting plan(s) referred to in condition 7.6, the wildlife management and connectivity plan referred to in condition 8.34, the cultural heritage property maintenance and re-use plan referred to in condition 11.5, the archaeological resources protection plan referred to in condition 11.8, the accident and malfunction response plan referred to in condition 14.3, the reports related to accidents and malfunctions referred to in conditions 14.5.3 and 14.5.4, the accident and malfunction communication plan referred to in condition 14.5, the schedules referred to in conditions 15.1 and 15.2, and any update or revision to the above documents, upon submission of these documents to the parties referenced in the respective conditions. The Proponent shall keep these documents publicly available for 15 years following their publication. The Proponent shall notify the Agency, potentially affected parties, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation of the availability of these documents within 48 hours of their publication.
- 2.15 When the development of any plan is a requirement of a condition set out in this document, the Proponent shall submit the plan to the Agency prior to construction, unless otherwise required through the condition.

### ***Change of Proponent***

- 2.16 The Proponent shall notify the Agency, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation in writing no later than 30 days after the day on which there is any transfer of ownership, care, control or management of the Designated Project in whole or in part.

### ***Change to the Designated Project***

- 2.17 The Proponent shall consult with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, the Huron-Wendat Nation, potentially affected parties, Conservation Halton and relevant authorities prior to notifying the Agency, pursuant to condition 2.18, of any potential change to the Designated Project.
- 2.18 The Proponent shall notify the Agency in writing of any potential change to the Designated Project that would result in a change to the Designated Project description included in this document or that may result in adverse environmental effects. In notifying the Agency, the Proponent shall provide a description of the change(s) to the Designated Project, the predicted adverse environmental effects and the proposed mitigation measures and follow-up requirements to be implemented by the Proponent to ensure that the change(s) do not result in adverse environmental effects greater than those predicted in the Joint Review Panel Report. The Proponent shall also describe the results of the consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, the Huron-Wendat Nation, potentially affected parties, Conservation Halton and relevant authorities.

### **3 Community liaison communication process**

- 3.1 The Proponent shall identify, prior to construction, parties that may be potentially affected by the Designated Project, which shall include parties representative of local and municipal governments, nearby residents, community organizations and business organizations identified by the Proponent in appendix D of the environmental impact statement (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57) and the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation. The Proponent shall provide the list of potentially affected parties, including their contact information, to the Agency prior to construction. The Proponent shall maintain this list up-to-date during all phases of the Designated Project and shall provide any updated list to the Agency as part of the annual report referred to in condition 2.12, or upon request of the Agency.
  
- 3.2 The Proponent shall develop, prior to construction and in consultation with potentially affected parties, a community liaison communication process. The Proponent shall implement the community liaison communication process throughout all phases of the Designated Project. The Proponent shall include, as part of the community liaison communication process, a method for potentially affected parties to provide feedback to the Proponent about any adverse environmental effect caused by any component of the Designated Project and a method for the Proponent to share information about the Designated Project with potentially affected parties, to document and respond to feedback received and to demonstrate how feedback has been addressed, including through the implementation of modified or additional mitigation measures and/or modified or additional follow-up program requirements. In doing so, the Proponent shall:
  - 3.2.1 determine, as part of the development of the community liaison communication process:
    - 3.2.1.1 the communication methods (including electronic and in-person communication methods) by which potentially affected parties may provide feedback to the Proponent and communication methods (including electronic and in-person communication methods) by which the Proponent shall share information about the Designated Project and address feedback received;
    - 3.2.1.2 how the Proponent shall document feedback received and how that feedback has been addressed, including through the implementation of any modified or additional mitigation measure and/or any modified or additional follow-up program requirement;
    - 3.2.1.3 how the Proponent shall report the information referred to in condition 3.2.1.2 to the potentially affected parties (including the frequency at which the Proponent shall report that information, which shall be no less than quarterly, and the communication methods by which the Proponent shall report that information);
    - 3.2.1.4 the information about the Designated Project that the Proponent shall share with potentially affected parties, which shall include the following information:
      - 3.2.1.4.1 the results of all follow-up program requirements identified in conditions 4.5, 4.10, 4.20, 5.9, 5.10, 5.13, 6.3, 6.10, 7.12, 8.4, 8.11, 8.14, 8.22, 8.26, 8.29, 8.33, 9.1 and 9.3, including any modified or additional mitigation measure implemented or proposed to be implemented by the Proponent;



- 3.2.1.4.2 the quarterly reports related to noise complaints referred to in condition 4.9.3;
  - 3.2.1.4.3 the land use history, construction details and photographic record referred to in condition 11.2.2;
  - 3.2.1.4.4 the results of the post-construction inspections referred to in condition 11.4; and
  - 3.2.1.4.5 the results of the heritage impact assessment referred to in condition 11.6.
- 3.2.1.5 how the requirements set out in conditions 3.2.1.1 to 3.2.1.3 may vary throughout any phase of the Designated Project, including during each of the three phases of construction, during the first year of operation and during the first year of operation at which the Designated Project operates at its full operational capacity;
- 3.2.2 provide the community liaison communication process to the Agency prior to construction;
- 3.2.3 as part of the implementation of the community liaison communication process:
- 3.2.3.1 implement the community liaison communication process according to the information determined pursuant to conditions 3.2.1.1 to 3.2.1.5;
  - 3.2.3.2 respond to all feedback received through the community liaison communication process in a timely manner, including, if the Proponent determines that no modified or additional mitigation measure and/or modified or additional follow-up program requirement is required to address the feedback, provide a rationale for that determination;
  - 3.2.3.3 implement any modified or additional mitigation measure and/or modified or additional follow-up program requirement that the Proponent determined is required to address feedback received; and
  - 3.2.3.4 provide to the Agency, as part of the annual report referred to in condition 2.12, all feedback received during the reporting year and how the Proponent has addressed all feedback, including any modified or additional mitigation measure and/or any modified or additional follow-up program requirement that the Proponent has implemented or plans to implement, or a rationale as to why no modified or additional mitigation measure(s) or no modified or additional follow-up program requirement(s) is/are required to address the feedback.

#### **4 Atmospheric environment**

##### ***Light***

- 4.1 The Proponent shall measure, prior to construction, baseline light trespass and glare at the eight sites identified by the Proponent in table 4.5 of the document entitled *Technical Data Report Light (Appendix E.8)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57).

- 4.2 The Proponent shall manage, during all phases of the Designated Project, lighting within the Designated Project Development Area such that light trespass and glare from the Designated Project meet or surpass:
- 4.2.1 E2 rural guidelines for light trespass and glare as set out in the International Commission on Illumination's *Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations (2<sup>nd</sup> Edition)*; or
  - 4.2.2 E3 suburban guidelines for light trespass and glare as set out in the International Commission on Illumination's *Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations (2<sup>nd</sup> Edition)* if baseline light trespass and glare measured pursuant to condition 4.1 exceeds E2 rural guidelines for light trespass and glare as set out in the Guide.
- 4.3 The Proponent shall develop, prior to construction, mitigation measures to control the direction, timing and intensity of lighting within the Designated Project Development Area to mitigate adverse environmental effects of the Designated Project (including on migratory birds), while meeting engineering requirements for safe railway and facility operation. The Proponent shall implement these measures throughout all phases of the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them. As part of these measures, the Proponent shall:
- 4.3.1 direct light fixtures toward active construction areas during construction and toward the terminal during operation;
  - 4.3.2 use down-cast light fixtures;
  - 4.3.3 install glare reduction technologies on individual light fixtures; and
  - 4.3.4 require that all motor vehicles use low-beam headlights within the Designated Project Development Area.
- 4.4 The Proponent shall evaluate, prior to construction, the technical and economic feasibility of installing amber-coloured outdoor light fixtures with wavelengths longer than 500 nanometers and a peak around 590 nanometres within the Designated Project Development Area. The Proponent shall also evaluate, in consultation with relevant authorities, whether the use of amber lighting can reduce sky glow and glare from the Designated Project, is not harmful to wildlife and can meet all engineering requirements for safe railway and facility operation. In doing so, the Proponent shall:
- 4.4.1 provide the results of the evaluation to the Agency and relevant authorities prior to construction; and
  - 4.4.2 install amber outdoor light fixtures within the Designated Project Development Area, unless the evaluation demonstrates that installing amber lighting is not technically or economically feasible or does not reduce sky glow and glare, is harmful to wildlife and/or does not meet all engineering requirements for safe railway and facility operation.
- 4.5 The Proponent shall develop, prior to construction and in consultation with the Town of Milton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse changes to ambient lighting attributable to the Designated Project. The Proponent shall implement the follow-up program during construction and until the end of the first year at which

the Designated Project operates at its full operational capacity. As part of the implementation of the follow-up program, the Proponent shall:

- 4.5.1 monitor light trespass and glare attributable to the Designated Project and compare monitoring results against the applicable guidelines referred to in condition 4.2.1 or 4.2.2; and
- 4.5.2 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 4.5.1 demonstrate that modified or additional mitigation measures are required to ensure that light trespass and glare attributable to the Designated Project meet or surpass the applicable guidelines referred to in condition 4.2.1 or 4.2.2. The Proponent shall submit these measures to the Agency prior to implementing them.

### **Noise**

- 4.6 The Proponent shall manage noise throughout all phases of the Designated Project so that the Designated Project causes the acoustic environment to change by less than one to five decibels, as set out in the U.S. Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual*, and the level of highly annoyed to change by no more than 6.5% from baseline, as set out in Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: NOISE*, at any receptor location identified by the Proponent on figure 3 of the document entitled *Technical Data Report Noise Effects Assessment (Appendix E.10)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57). In doing so, the Proponent shall:
  - 4.6.1 construct, prior to operation, and maintain, throughout operation, vegetated noise berms with a minimum height of 5 metres within the Designated Project Development Area. The Proponent shall determine the locations of the berms prior to construction and shall provide that information to the Agency prior to construction;
  - 4.6.2 install a temporary sound barrier around the concrete batch plant for the duration of any paving activity conducted during construction;
  - 4.6.3 install a temporary sound barrier around the construction site for the Lower Base Line grade separation;
  - 4.6.4 use and maintain noise-dampening technologies on construction vehicles and equipment in good working order;
  - 4.6.5 require all employees and contractors associated with the Designated Project to abide by best practices for noise reduction during all activities occurring within and outside the Designated Project Development Area, including when travelling to and from the Area and during loading and unloading activities. The Proponent shall provide these best practices to the Agency prior to implementing them; and
  - 4.6.6 enclose generators used during construction and manage their overall sound power levels in a manner that reduces noise.
- 4.7 The Proponent shall develop, prior to construction and in consultation with potentially affected parties, a communication protocol to share information related to noise attributable to construction of the Designated Project. The Proponent shall implement the protocol during construction. The Proponent shall provide the protocol to the Agency prior to construction. The

protocol shall include procedures, including timing and methods, for sharing information on the following:

- 4.7.1 the schedule of construction activities, including construction activities that produce noise, and any update to that schedule;
  - 4.7.2 how the Proponent will notify the local community if the Proponent must conduct construction activities at nighttime pursuant to condition 4.8; and
  - 4.7.3 the details of the protocol for receiving complaints related to exposure to noise attributable to the Designated Project implemented pursuant to condition 4.9, including how to record a complaint.
- 4.8 The Proponent shall conduct construction activities during daytime, unless not technically feasible. If the Proponent must conduct any construction activity that produces noise during nighttime, the Proponent shall notify the local community prior to undertaking the activity according to the communication protocol implemented pursuant to condition 4.7.
- 4.9 The Proponent shall develop, prior to construction and in consultation with potentially affected parties, a protocol for receiving complaints related to exposure to noise attributable to the Designated Project. The Proponent shall implement the protocol during all phases of the Designated Project. The Proponent shall provide the protocol to the Agency prior to construction. As part of the implementation of the protocol, the Proponent shall:
- 4.9.1 respond to any noise complaint attributed to any component of the Designated Project within 48 hours of the complaint being received and shall implement any corrective action, if required to reduce exposure to noise, in a timely manner;
  - 4.9.2 consider the results of the monitoring conducted pursuant to condition 4.10 when determining if any corrective action is required to reduce exposure to noise; and
  - 4.9.3 provide, on a quarterly basis, a report of all complaints received and any corrective action taken during the reporting quarter to the Agency, the Town of Milton and potentially affected parties.
- 4.10 The Proponent shall develop, prior to construction and in consultation with Health Canada, the Canadian Transportation Agency, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse changes to the acoustic environment attributable to the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the implementation of the follow-up program, the Proponent shall compare changes to the acoustic environment attributable to the Designated Project against the thresholds for change referred to in condition 4.6. In doing so, the Proponent shall:
- 4.10.1 monitor day-night average sound levels continuously during the first four weeks of each of the three phases of construction, at locations to be determined as part of the development of the follow-up program;
  - 4.10.2 monitor day-night average sound levels continuously during the first four weeks of operation and during four additional weeks when the Designated Project operates at its

full operational capacity, at locations to be determined as part of the development of the follow-up program;

- 4.10.3 as part of the monitoring referred to in conditions 4.10.1 and 4.10.2, monitor low-frequency noise in a manner that allows comparison with the American National Standards Institute's *Quantities and Procedures for Description and Measurement of Environmental Sound Part 4: Noise Assessment and Prediction of Long-Term Community Response (ANSI S12.9-2005/Part 4)*; and
- 4.10.4 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in conditions 4.10.1 or 4.10.2 demonstrate that modified or additional mitigation measures are required to maintain changes to the acoustic environment attributable to the Designated Project within the thresholds for change referred to in condition 4.6, including in the area north of Britannia Road. The Proponent shall submit these measures to the Agency prior to implementing them.

### **Air quality**

- 4.11 The Proponent shall implement, during all phases of the Designated Project, measures to mitigate fugitive dust emissions attributable to the Designated Project, including:
  - 4.11.1 using dust suppressants when conducting any Designated Project activity that may generate dust;
  - 4.11.2 avoiding the handling of non-enclosed granular materials during sustained high wind conditions, unless not technically feasible;
  - 4.11.3 covering or enclosing sources of granular materials stored in open containers within the Designated Project Development Area;
  - 4.11.4 building and managing temporary and permanent roads and parking lots located within the Designated Project Development Area in a manner that reduces fugitive dust emissions from dirt surfaces, including through paving and the removal of loose materials on road surfaces; and
  - 4.11.5 establishing speed limits on temporary and permanent roads located within the Designated Project Development Area and requiring that all persons abide by these speed limits.
- 4.12 The Proponent shall install the temporary portable concrete plant, which shall include a bag house, and shall operate the plant in a manner that mitigates fugitive dust emissions attributable to the operation of the concrete plant. In doing so, the Proponent shall:
  - 4.12.1 store dry material only within designated material storage areas and control dust emissions when transferring and handling dry material;
  - 4.12.2 enclose material transfer points, conveyors and mixing equipment; and
  - 4.12.3 minimize drop height during truck loading and unloading activities.
- 4.13 The Proponent shall implement measures to mitigate air emissions attributable to the Designated Project, including by:

- 4.13.1 implementing a no-idling policy for mobile equipment and vehicles within the Designated Project Development Area during all phases of the Designated Project and requiring that all persons abide by this policy, unless not feasible for health or safety reasons;
  - 4.13.2 during construction, applying the tendering process to require third-party contractors to use zero-emission mobile and stationary off-road equipment for any physical activity undertaken in relation to the Designated Project or, if zero-emission equipment is not available, use equipment that:
    - 4.13.2.1 uses diesel engines operating on diesel or low-carbon diesel fuel that meet, at a minimum, Tier 4 emissions standards and is equipped with verified diesel particulate filters and for which both the engines and the filters are maintained in accordance with maintenance instructions provided by the manufacturer; or
    - 4.13.2.2 uses low-carbon fuel, which may include natural gas, propane or hydrogen, while meeting, at a minimum, Tier 4 emissions standards and being maintained in accordance with maintenance instructions provided by the manufacturer;
  - 4.13.3 during operation, using mobile and stationary off-road equipment that is zero-emission for any physical activity undertaken by the Proponent in relation to the Designated Project, including maintenance activities, or, if zero-emission equipment is not available, using equipment that meets the requirements referred to in condition 4.13.2.1 or 4.13.2.2;
  - 4.13.4 reducing distance travelled on-site by outgoing vehicles and minimizing container handling turnaround time during operation; and
  - 4.13.5 ensuring emission control technologies are not removed from equipment and vehicles operated by the Proponent for the Designated Project during any phase of the Designated Project, unless removal is necessary for repair and maintenance activities, after which the emission control technologies shall be reinstalled or replaced.
- 4.14 The Proponent shall provide to the Agency, as part of the annual report referred to in condition 2.12, an update on the technical and economic feasibility of electrifying the Proponent-owned fleet of trucks that may serve the Designated Project. The Proponent shall provide that information annually until such time that the Proponent electrifies its truck fleet, or until the Proponent determines that electrifying the truck fleet is not technically or economically feasible. In providing that information, the Proponent shall:
- 4.14.1 provide a rationale as to why the truck fleet has, or has not, been electrified; and
  - 4.14.2 provide an update on the electric truck pilot project referred to by the Proponent in its Closing Statement Submission (Canadian Impact Assessment Registry Reference Number 80100, Document Number 972), including the results of the pilot project when it is completed.
- 4.15 The Proponent shall provide to the Agency, as part of the annual report referred to in condition 2.12, an update on the technical and economic feasibility of implementing idling reduction technologies on Proponent-owned locomotives that may serve the Designated Project. The Proponent shall provide that information annually until such time that the Proponent implements these technologies, or until the Proponent determines that implementing these technologies is not technically or economically feasible. In providing that information, the Proponent shall provide a rationale as to why these technologies have, or have not, been implemented.

- 4.16 The Proponent shall develop, prior to operation and in consultation with Environment and Climate Change Canada, an air pollutant emissions reduction plan to encourage continual improvements in the reduction of air pollutant emissions from trucks serving the Designated Project. As part of the development of the plan, the Proponent shall establish emissions thresholds for high-emitting trucks. The Proponent shall submit the plan to the Agency prior to operation and shall implement the plan throughout operation. As part of the implementation of the plan, the Proponent shall:
- 4.16.1 implement incentive measures to encourage truck operators serving the Designated Project to lower truck emissions and implement clean technology, which may include low-carbon fuel, low-emission auxiliary power units or idling reduction technologies;
  - 4.16.2 install and maintain, during all phases of the Designated Project, signs at the exit of the terminal reminding truck operators serving the Designated Project to reduce idling outside of the Designated Project Development Area, unless not feasible for health or safety reasons;
  - 4.16.3 evaluate, prior to operation, the technical and economic feasibility of installing remote sensing equipment to continuously collect information about air pollutants emitted by trucks entering the Designated Project Development Area, including concentrations of nitrogen oxides (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>) and particulate matters (PM) to identify high-emitting trucks according to the thresholds established during the development of the plan and to notify truck operators of any truck that meets or exceeds the thresholds. In doing so, the Proponent shall:
    - 4.16.3.1 provide the results of the evaluation to the Agency and Environment and Climate Change Canada prior to operation; and
    - 4.16.3.2 install, prior to operation, and maintain, throughout operation, remote sensing equipment to continuously collect air pollutant information within the Designated Project Development Area, unless the evaluation demonstrates that installing remote sensing equipment is not technically or economically feasible; and
  - 4.16.4 report to the Agency, as part of the annual report referred to in condition 2.12 and for any air pollutant information collected pursuant to condition 4.16.3.2, air pollutants emitted by trucks entering the Designated Project Development Area during the reporting year, including the number and proportion of trucks meeting or exceeding the thresholds established during the development of the plan, and how the Proponent has addressed these high-emitting trucks through notification to the truck operators and/or other means.
- 4.17 The Proponent shall develop, prior to operation and in consultation with Environment and Climate Change Canada and other relevant authorities, an air pollutant emissions reduction plan to encourage continual improvements in the reduction of air pollutant emissions from locomotives serving the Designated Project. As part of the development of the plan, the Proponent shall establish five-year targets for increasing over time the proportion of locomotives serving the Designated Project that meet, at a minimum Tier 4 emissions standards, and are maintained, in accordance with engine maintenance instructions provided by the manufacturer, to remain at least Tier 4 compliant, or of locomotives that are retrofitted with verified diesel oxidation catalysts and the latest available engine upgrades, until such time that the Designated

Project is fully served by these locomotives. The Proponent shall submit the plan to the Agency prior to operation and shall implement the plan throughout operation.

- 4.17.1 As part of the annual report referred to in condition 2.12, the Proponent shall report to the Agency its progress in meeting the five-year target applicable to the reporting year.
- 4.18 The Proponent shall review the air pollutant emissions reduction plans referred to in conditions 4.16 and 4.17, in consultation with Environment and Climate Change Canada and other relevant authorities, after the fifth year of operation and every five years thereafter. If the Proponent updates the plan(s), the Proponent shall submit any updated plan to the Agency, Environment and Climate Change Canada and other relevant authorities within 30 days of the plan(s) being updated.
- 4.19 During operation, the Proponent shall allow a maximum of 800 trucks to enter the Designated Project Development Area per 24-hour period to handle containerised goods.
- 4.20 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Health Canada, the Ontario Ministry of the Environment, Conservation and Parks, Halton Municipalities, the Town of Milton, the Mississaugas of the Credit First Nation and the Six Nations of the Grand River, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse changes to air quality attributable to the Designated Project. The Proponent shall implement the follow-up program during construction and the first five years of operation. As part of the implementation of the follow-up program, the Proponent shall:
  - 4.20.1 conduct a pre-construction survey to reflect any change to the 2015-2016 air quality baseline information provided by the Proponent as part of the environmental assessment and update, as required based on current baseline information, predicted air quality concentrations set out in table 5-1 of the Joint Review Panel Report (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985) and, for 1-hour and annual NO<sub>2</sub> concentrations, set out in tables 1 and 2 submitted by the Proponent in response to Information Request 4.29 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 632). The Proponent shall submit any updated baseline information and any updated predictions to the Agency prior to construction;
  - 4.20.2 monitor continuously, during construction, particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>), nitrogen dioxide (NO<sub>2</sub>) and meteorological conditions (including wind speed, wind direction, temperature and relative humidity) at locations upwind and downwind of the Designated Project Development Area, at or near the property line, based on prevailing winds;
  - 4.20.3 monitor, during the first five years of operation, or until the end of the first year during which the Designated Project operates at its full operational capacity, whichever comes later, particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>) and nitrogen dioxide (NO<sub>2</sub>) continuously, benzene and benzo(a)perene non-continuously over a 24-hour period (midnight to midnight) once every six days and meteorological conditions (including wind speed, wind direction, temperature and relative humidity) at the same monitoring locations referred to in condition 4.20.2;
  - 4.20.4 compare the results of the monitoring referred to in conditions 4.20.2 and 4.20.3 to:



- 4.20.4.1 the Canadian Council of Ministers of the Environment's *National Ambient Air Quality Objectives*, the *Canadian Ambient Air Quality Standards* or, in the absence of federal criteria, to the *Ontario Ambient Air Quality Criteria*; or
- 4.20.4.2 if the current baseline information referred to in condition 4.20.1 already exceeds the air quality standards referred to in condition 4.20.4.1, to predicted air quality concentrations set out in table 5-1 of the Joint Review Panel Report (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985) and, for 1-hour and annual NO<sub>2</sub> concentrations, set out in tables 1 and 2 submitted by the Proponent in response to Information Request 4.29 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 632), or any update to predicted air quality concentrations made pursuant to condition 4.20.1;
- 4.20.5 if the results of the monitoring referred to in condition 4.20.2 or 4.20.3 meet or are below the predicted air quality concentrations set out in table 5-1 of the Joint Review Panel Report (Canadian Impact Assessment Registry Reference Number 80100, Document Number 985) and, for 1-hour and annual NO<sub>2</sub> concentrations, set out in tables 1 and 2 submitted by the Proponent in response to Information Request 4.29 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 632), or any update to predicted air quality concentrations made pursuant to condition 4.20.1, the Proponent may determine a less frequent monitoring frequency, in consultation with the parties being consulted during the development of the follow-up program, at which to continue monitoring until the end of the 5<sup>th</sup> year following the start of operation, or until the end of the first year during which the Designated Project operates at its full operational capacity, whichever comes later; and
- 4.20.6 if the comparison undertaken pursuant to condition 4.20.4.1 or 4.20.4.2 demonstrates any exceedance of the air quality standards referred to in condition 4.20.4.1 or the predicted air quality concentrations referred to in 4.20.4.2, determine, in consultation with the parties involved in the development of the follow-up program, the source of any such exceedance. If the Proponent determines that the Designated Project is the source of the exceedance, the Proponent shall develop and implement modified or additional mitigation measures to ensure that ambient concentrations of contaminants monitored pursuant to condition 4.20.2 or 4.20.3 remain within the levels referred to in condition 4.20.4.1 or 4.20.4.2. The Proponent shall submit these measures to the Agency prior to implementing them.

## **5 Water**

### ***Surface water***

- 5.1 The Proponent shall design and implement the Designated Project, in consultation with Conservation Halton, the Town of Milton, Environment and Climate Change Canada, Fisheries and Oceans Canada, other relevant authorities, the Mississaugas of the Credit First Nation and the Six Nations of the Grand River, such that baseline maximum and minimum flows of waterbodies affected by the Designated Project located outside of the Designated Project Development Area are maintained during all phases of the Designated Project, and that sufficient capacity exists to

safely accommodate and convey the range of climate conditions that could be reasonably expected during the Designated Project's lifetime, including at least one Regional storm event.

- 5.2 The Proponent shall design, in consultation with Conservation Halton, the Town of Milton, Environment and Climate Change Canada, Fisheries and Oceans Canada and other relevant authorities, and implement a stormwater management system to collect and treat all stormwater runoff from the Designated Project prior to release to Indian Creek and Tributary A. In doing so, the Proponent shall:
  - 5.2.1 design the stormwater management system so that it can convey multiple storm events, including a Regional storm event or a 1:100-year 24-hour storm event, whichever is greater;
  - 5.2.2 install oil grit separators for the administration and maintenance buildings, gate area and work pad areas to capture sediments, oil and grease before discharge to the wet ponds;
  - 5.2.3 install shut off valves on the stormwater management pond outlets; and
  - 5.2.4 implement end-of-pipe storage volumes that take into account Enhanced Protection requirements for long-term average suspended solids under the Ontario's *Stormwater Management Planning and Design Manual*.
- 5.3 The Proponent shall not use salt for de-icing or traction control purposes within the Designated Project Development Area during any phase of the Designated Project, unless all other methods for de-icing or traction control purposes do not meet requirements for safe railway and facility operation. If the Proponent must use salt, the Proponent shall develop and implement measures to mitigate salt loading into the stormwater management system. The Proponent shall provide these measures to the Agency prior to implementing them.
- 5.4 The Proponent shall implement measures to control erosion and sedimentation within the Designated Project Development Area to avoid the deposit of sediments in water bodies when conducting any activity, including dewatering, during any phase of the Designated Project, including through the installation of erosion and sedimentation control devices and vegetation planting. The Proponent shall provide these measures to the Agency prior to implementing them.
- 5.5 The Proponent shall undertake equipment fuelling and maintenance, store substances with the potential to cause harmful effects to the receiving environment and deposit water removed during dewatering at least 30 metres from any fish-bearing water.
- 5.6 The Proponent shall implement measures during construction to prevent wet concrete or cement-laden water, including high pH run-off occurring during concrete work, from entering any fish-bearing water.
- 5.7 The Proponent shall collect and treat all wastewaters and wash waters, taking into account the Council of Canadian Ministers of the Environment's *Canadian Water Quality Guidelines for the Protection of Aquatic Life*, before discharging them in any fish-bearing water.
- 5.8 The Proponent shall implement measures to mitigate the mobilization and transport of potential residual agricultural contaminants within the Designated Project Development Area towards the stormwater management system during all phases of the Designated Project, including measures to allow time for increased die-off of pathogenic organisms and volatilization of agricultural

contaminants prior to soil disturbance and removal of nutrient compounds through plant harvesting.

- 5.9 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Fisheries and Oceans Canada, the Town of Milton, Conservation Halton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the stormwater management system. The Proponent shall implement the follow-up program following the end of construction. As part of the implementation of the follow-up program, the Proponent shall:
- 5.9.1 review, every five years following the end of construction, the performance of the stormwater management system in light of the most current climate change projections, including through the review of downstream hydrographs and floodlines; and
  - 5.9.2 develop and implement modified or additional mitigation measures if any review conducted pursuant to condition 5.9.1 demonstrates that modified or additional mitigation measures are required to maintain downstream hydrographs and floodlines unaltered, unless otherwise directed or advised by Environment and Climate Change Canada in consultation with Conservation Halton. The Proponent shall submit these measures to the Agency prior to implementing them.
- 5.10 The Proponent shall develop, in consultation with Environment and Climate Change Canada, Conservation Halton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse changes to surface water quality and quantity attributable to the Designated Project. The Proponent shall implement the follow-up program during construction and following the end of construction. As part of the implementation of the follow-up program, the Proponent shall:
- 5.10.1 monitor surface water quantity continuously during construction and for at least five years following the end of construction;
  - 5.10.2 monitor surface water quality, during construction and for at least five years following the end of construction, at least monthly and during high flows and upset conditions. The Proponent shall determine the water quality parameters to be monitored during the development of the follow-up program in order to support the comparison of measured parameters to the levels predicted during the environmental assessment;
  - 5.10.3 conduct the monitoring referred to in conditions 5.10.1 and 5.10.2 both at locations where water flows towards the Designated Project Development Area and at locations where water flows away from the Designated Project Development Area, including the effluent of the stormwater management ponds;
  - 5.10.4 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 5.10.1 or 5.10.2 demonstrate that modified or additional mitigation measures are required to mitigate adverse changes to surface water quality and quantity attributable to the Designated Project, including so that water quality at locations where water flows towards the Designated Project Development Area is equivalent to water quality at locations where water flows away from the Designated

Project Development Area. The Proponent shall submit these measures to the Agency prior to implementing them; and

- 5.10.5 determine, in consultation with Environment and Climate Change Canada, Conservation Halton and other relevant authorities and based on the results of the monitoring referred to in conditions 5.10.1 and 5.10.2, if additional monitoring is required after the first five years following the end of construction.

### **Groundwater**

- 5.11 The Proponent shall implement measures to maintain baseline groundwater flow and prevent the preferential movement of groundwater along servicing alignments.
- 5.12 The Proponent shall estimate, prior to construction, the dewatering requirements of the Designated Project and shall provide that information to the Agency prior to construction. In the event that the Proponent determines that construction of the Designated Project requires dewatering in excess of 50,000 L/day, the Proponent shall implement a dewatering system to dissipate the energy and reduce the sediment content of discharging water during construction.
- 5.13 The Proponent shall develop, prior to construction and in consultation with Natural Resources Canada, Conservation Halton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse changes to groundwater quality and quantity attributable to the Designated Project. The Proponent shall implement the follow-up program during construction and following the end of construction. As part of the implementation of the follow-up program, the Proponent shall:
- 5.13.1 monitor, during construction and for a minimum of one year following the end of construction, groundwater levels and quality within the Designated Project Development Area and at private wells located within the Local Assessment Area defined by the Proponent on figure 6 of the document entitled *Technical Data Report Hydrogeology (Appendix E.6)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57). In the event that the Proponent determines that construction dewatering is required pursuant to condition 5.12, the Proponent shall also monitor wells located within the projected dewatering cone of depression to determine the potential for drawdown interference; and
- 5.13.2 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 5.13.1 demonstrate that modified or additional measures are required to maintain groundwater quantity and quality as predicted by the Proponent as part of the environmental assessment in the document entitled *Technical Data Report Hydrogeology (Appendix E.6)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57). The Proponent shall submit these measures to the Agency prior to implementing them.

## **6 Terrestrial environment**

- 6.1 The Proponent shall design, prior to construction and in consultation with Conservation Halton, the Mississaugas of the Credit First Nation and the Six Nations of the Grand River, and maintain, throughout operation, 7.1 hectares of replacement online and offline wetlands within the

Designated Project Development Area in a manner that supports the maintenance of ecological functions in the Bronte Creek watershed and that enhances wetland habitat for turtle and breeding opportunities for wetland-dependant birds. In doing so, the Proponent shall establish the constructed riparian wetlands with emergent and native riparian vegetation. The Proponent shall construct the replacement wetlands before removing the existing wetlands, unless not technically or economically feasible.

6.1.1 If it is not technically or economically feasible to construct the replacement wetlands before removing the existing wetlands, the Proponent shall construct the replacement wetlands within three years of the start of construction.

6.2 The Proponent shall design and maintain, throughout operation, drainage features around Designated Project components, including culverts beneath the mainline, to maintain baseline drainage and inflows and outflows to and from wetlands located within the Designated Project Development Area. In doing so, the Proponent shall:

6.2.1 conduct, prior to construction and in consultation with Conservation Halton, a feature-based water balance analysis for all wetlands with drainage areas that may be affected by the Designated Project to understand the hydrological impacts of site alteration (including water inflows and outflows) on all wetlands located within the Designated Project Development Area and ensure their long-term viability;

6.2.2 consider the results of the feature-based water balance analysis conducted pursuant to condition 6.2.1 to inform the design and maintenance of the replacement wetlands referred to in condition 6.1;

6.2.3 consider the results of the feature-based water balance analysis conducted pursuant to condition 6.2.1 to inform the design and installation of the stormwater management system; and

6.2.4 submit to the Agency, prior to construction, the results of the feature-based water balance analysis conducted pursuant to condition 6.2.1 and how the Proponent considered these results pursuant to conditions 6.2.2 and 6.2.3.

6.3 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Conservation Halton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of the mitigation measures as it pertains to the adverse changes to wetlands and wetland functions attributable to the Designated Project. The Proponent shall implement the follow-up program following the end of construction. As part of the implementation of the follow-up program, the Proponent shall:

6.3.1 monitor, for at least five years following the end of construction, the areal extent, encroachment by invasive vegetation species and success of native vegetation planting for all retained and constructed wetlands located within the Designated Project Development Area;

6.3.2 monitor, for at least five years following the end of construction, water level fluctuations in all retained and constructed wetlands located within the Designated Project Development Area and compare monitoring results against baseline fluctuations;

- 6.3.3 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 6.3.1 or 6.3.2 demonstrate that modified or additional mitigation measures are required such that the total areal extent of wetlands within the Designated Project Development Area is maintained or increased over time and retained and constructed wetlands maintain their functions over time. The Proponent shall submit these measures to the Agency prior to implementing them; and
  - 6.3.4 determine, in consultation with Environment and Climate Change Canada, Conservation Halton and other relevant authorities and based on the results of the monitoring referred to in conditions 6.3.1 and 6.3.2, if additional monitoring is required after the first five years following the end of construction.
- 6.4 The Proponent shall establish and maintain, during all phases of the Designated Project, a buffer of undisturbed vegetation around all retained and constructed wetlands and along riparian areas located within the Designated Project Development Area. In doing so, the Proponent shall:
- 6.4.1 determine the width of the buffer(s) prior to construction, in consultation with relevant authorities, and shall provide that information to the Agency prior to construction; and
  - 6.4.2 conduct work or activity within the buffer only to the extent necessary to meet engineering requirements for safe railway and facility operation, to install and maintain erosion or sediment control measures and to conduct channel realignment, restoration and naturalization work.
- 6.5 The Proponent shall delineate, prior to construction, areas on the ground within which construction will take place. The Proponent shall not undertake any construction activity outside of these areas, to the extent that it is technically feasible or unless required to meet engineering requirements for safe railway and facility operation.
- 6.6 The Proponent shall minimize soil disturbance and shall retain vegetation, including wildlife trees, within and around the Designated Project Development Area, to the extent that it is technically feasible or unless required to meet engineering requirements for safe railway and facility operation.
- 6.7 The Proponent shall handle and store soils during construction in a manner that protects soil quality for re-use. In the event that the Proponent encounters contaminated soils during construction, the Proponent shall determine the suitability of re-using that soil before re-using it. The Proponent shall dispose of any soil not suitable for re-use according to proper screening and disposal requirements, taking into account Ontario's *Management of Excess Soil - A Guide for Best Management Practices*.
- 6.8 The Proponent shall implement measures, during construction, to avoid the introduction or spread of invasive vegetation within the Designated Project Development Area, including from equipment brought on-site from other worksites and from imported fill.
- 6.9 The Proponent shall conduct progressive reclamation of areas disturbed by the Designated Project. The Proponent shall use native Ontario species and non-invasive grass species when conducting reclamation.
- 6.10 The Proponent shall develop, prior to construction and in consultation with relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the

effectiveness of the mitigation measures as it pertains to progressive reclamation of the Designated Project Development Area conducted pursuant to condition 6.9, including the establishment of native Ontario species and non-invasive grass species. The Proponent shall implement the follow-up program during all phases of the Designated Project.

## **7 Fish and fish habitat**

- 7.1 The Proponent shall develop, prior to construction and in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and relevant authorities, and implement, during all phases of the Designated Project, measures to protect fish and fish habitat when conducting any Designated Project activity in or near water not already approved under the *Fisheries Act*, taking into account Fisheries and Oceans Canada's *Measures to protect fish and fish habitat*.
- 7.2 The Proponent shall have a qualified individual, who is an aquatic biologist, salvage and relocate fish prior to conducting any Designated Project activity requiring the removal of fish habitat, including dewatering, culvert installations, channel realignment or any construction work undertaken by a contractor associated with the Designated Project, in a manner that is consistent with any license issued under the *Fisheries Act* and its regulations. In doing so, the Proponent shall:
- 7.2.1 salvage and relocate fish to the satisfaction of Fisheries and Oceans Canada and other relevant authorities;
  - 7.2.2 give preference to relocating fish within the same waterbody, outside of the work area; and
  - 7.2.3 if relocating fish within the same waterbody is not technically feasible, relocate fish where suitable habitat exists, outside of the work area.
- 7.3 The Proponent shall design, install and operate the water and pump intake structures located in fish-bearing water within the Designated Project Development Area in a manner that mitigates the incidental capture of fish by entrainment and impingement and is consistent with the *Fisheries Act* and its regulations. In doing so, the Proponent shall use an appropriately sized fish screen, taking into account Fisheries and Oceans Canada's *Freshwater Intake End-of-Pipe Fish Screen Guideline* and *Interim code of practice: end-of-pipe fish protection screens for small intakes in freshwater*, and shall not disturb the bed of the water body.
- 7.4 The Proponent shall conduct any in-water construction activity, including any activity associated with the realignment of Indian Creek and Tributary A, outside of restricted activity timing windows for fish species defined for the Southern Region by the Ontario Ministry of Natural Resources and Forestry, unless otherwise permitted by relevant authorities.
- 7.4.1 If the Proponent must conduct any in-water construction activity during the restricted activity timing windows, the Proponent shall develop and implement additional mitigation measures, in consultation with Fisheries and Oceans Canada and other relevant authorities, to protect fish during sensitive life stages, including migration and spawning. The Proponent shall submit these measures to the Agency prior to implementing them.

- 7.5 The Proponent shall develop, to the satisfaction of Fisheries and Oceans Canada and in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and Conservation Halton, and implement any offsetting plan related to any residual harm to fish and fish habitat associated with the carrying out of the Designated Project. The Proponent shall submit the approved offsetting plan(s) to the Agency prior to implementation. As part of the development of the offsetting plan(s), the Proponent shall:
- 7.5.1 delineate existing and future fish habitat, including riparian buffers; and
  - 7.5.2 describe how created habitat will meet the requirements of life stages for fish species likely to be affected by the Designated Project.
- 7.6 The Proponent shall advise the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and Conservation Halton on how the views and information they provided to the Proponent as part of the development of any offsetting plan(s) referred to in condition 7.5 have been considered by the Proponent, including a rationale for why the views and information have, or have not, been integrated, prior to submitting the offsetting plan(s) to Fisheries and Oceans Canada for approval. The Proponent shall submit that rationale to the Agency prior to implementing the approved offsetting plan(s).
- 7.7 The Proponent shall, for any fish habitat offsetting measure proposed in the approved offsetting plan(s) referred to in condition 7.5 that may cause adverse environmental effects not considered in the environmental assessment, develop and implement, following consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, Conservation Halton and relevant authorities, measures to mitigate those effects. The Proponent shall submit these measures to the Agency prior to implementing them.
- 7.8 The Proponent shall fell trees away from water bodies and shall immediately remove trees, debris or soils inadvertently deposited below the high watermark of a water body.
- 7.9 The Proponent shall apply natural channel design principles when realigning Indian Creek and Tributary A. In doing so, the Proponent shall incorporate natural bed morphology and planform geometry to the realigned channels in a manner that promotes natural sediment transport processes and such that the realigned channels:
- 7.9.1 do not excessively aggrade or degrade;
  - 7.9.2 convey baseline flow levels;
  - 7.9.3 maintain baseline bankfull frequency;
  - 7.9.4 do not alter downstream channel morphology; and
  - 7.9.5 provide fish habitat features and allow for fish migration and passage.
- 7.10 The Proponent shall realign Indian Creek and Tributary A in a manner that minimizes the extent and duration of flow diversions in existing channels, including by:
- 7.10.1 constructing the realigned channels offline;
  - 7.10.2 siting the realigned channels predominantly outside of the existing channels;



- 7.10.3 not commissioning the realigned channels until such time that all realignment works are completed; and
  - 7.10.4 leaving earthen plugs in the connection points with the existing channels until such time that the realigned channels are vegetated and the Proponent commissions the realigned channels pursuant to condition 7.10.3.
- 7.11 The Proponent shall develop, prior to construction and in consultation with Fisheries and Oceans Canada and Conservation Halton, and implement, during operation, measures to mitigate increased temperature in water discharged from the stormwater management system such that collected overland runoff flows at a temperature no higher than baseline conditions, taking into account Ontario's *Stormwater Management Planning and Design Manual*. As part of these measures, the Proponent shall:
- 7.11.1 maintain vegetated edges and berms around the wet ponds and along the outlet channel;
  - 7.11.2 maintain permeable pavements over low-load parking lots and maintain grassed swales;
  - 7.11.3 install below-grade pipes, bottom draw outlet pipes, cooling towers and cooling trenches; and
  - 7.11.4 release water from the stormwater management system only during nighttime, except during or within 48 hours of storm events.
- 7.12 The Proponent shall develop, prior to construction and in consultation with Fisheries and Oceans Canada, Conservation Halton, the Mississaugas of the Credit First Nation and the Six Nations of the Grand River, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to adverse environmental effects on fish and fish habitat attributable to the Designated Project. The Proponent shall implement the follow-up program. As part of the implementation of the follow-up program, the Proponent shall:
- 7.12.1 monitor the effectiveness of the offsetting measures implemented as part of the approved offsetting plan(s) referred to in condition 7.5;
  - 7.12.2 monitor channel stability throughout the Designated Project Development Area, including channel cross-sections, bed substrate, bed morphology and detailed longitudinal profiles, to track channel migration. In doing so, the Proponent shall:
    - 7.12.2.1 conduct spring monitoring of in-stream structures through visual assessment and photo documentation; and
    - 7.12.2.2 conduct fall monitoring of stream characteristics (including profile, pattern, dimensions and pebble counts);
  - 7.12.3 monitor water temperature of the overland runoff flows from the stormwater management system;
  - 7.12.4 report the results of all monitoring conducted as part of the implementation of the follow-up program to Fisheries and Oceans Canada and Conservation Halton pursuant to condition 2.7.2;
  - 7.12.5 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 7.12.1, 7.12.2 or 7.12.3 demonstrate that modified or

additional mitigation measures are required to mitigate adverse environmental effects on fish and fish habitat attributable to the Designated Project, including fish and fish habitat downstream of the Local Assessment Area, defined by the Proponent in section 3.2 of the document entitled *Technical Data Report Fish and Fish Habitat (Appendix E.4)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57). The Proponent shall submit these measures to the Agency prior to implementing them; and

- 7.12.6 update the follow-up program, in consultation with Fisheries and Oceans Canada and Conservation Halton, at least every five years during operation, and provide any update(s) to the Agency, Fisheries and Oceans Canada and Conservation Halton within 30 days of the update(s) being made.

## **8 Wildlife**

### ***Migratory birds***

- 8.1 The Proponent shall carry out the Designated Project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's *Avoidance Guidelines* to reduce risk to migratory birds. The Proponent's actions when carrying out the Designated Project shall be in compliance with the *Migratory Birds Convention Act, 1994*, the *Migratory Birds Regulations* and with the *Species at Risk Act*.
- 8.2 The Proponent shall ensure that vegetation in migratory bird habitat located within the Designated Project Development Area remains undisturbed during the breeding season for migratory birds. The Proponent shall determine the dates of the breeding season, in consultation with Environment and Climate Change Canada, for any year that vegetation clearing shall occur. If vegetation clearing outside of the breeding season is not technically feasible during any year, the Proponent shall develop and implement additional mitigation measures, in consultation with Environment and Climate Change Canada, to avoid effects on migratory birds and their nests. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.3 The Proponent shall design and maintain, throughout operation, buildings associated with the Designated Project in a manner that minimizes the risk of avian collisions, taking into account the City of Toronto's *Bird Friendly Development Guidelines*.
- 8.4 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of all mitigation measures to avoid harm to migratory birds, including migratory birds that are listed species at risk, their eggs and nests. The follow-up program shall include the mitigation measures used to comply with conditions 8.1 to 8.3, 8.12 and 8.24. The Proponent shall implement the follow-up program during all phases of the Designated Project.

### ***Listed species at risk***

- 8.5 The Proponent shall conduct, in consultation with Environment and Climate Change Canada and Conservation Halton, springtime pre-construction surveys of the Designated Project Development

Area and of the Local Assessment Area, defined by the Proponent in section 3.2 of the document entitled *Technical Data Report Terrestrial (Appendix E.16)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57), to identify the presence or absence of western chorus frog (*Pseudacris triseriata*) and breeding and hibernating sites (residences) for western chorus frog (*Pseudacris triseriata*) prior to carrying out any disturbance associated with the Designated Project. In doing so, the Proponent shall:

- 8.5.1 develop the survey methodology in consultation with Environment and Climate Change Canada and Conservation Halton prior to conducting the surveys;
  - 8.5.2 identify connectivity between all habitat necessary to support the annual life cycle of western chorus frog (*Pseudacris triseriata*), including breeding and hibernating sites (residences) identified through the surveys; and
  - 8.5.3 develop, in consultation with Environment and Climate Change Canada and Conservation Halton, and implement modified or additional mitigation measures if western chorus frog (*Pseudacris triseriata*) and/or breeding or hibernating sites (residences) for western chorus frog (*Pseudacris triseriata*) is identified through the surveys to mitigate adverse environmental effects on western chorus frog (*Pseudacris triseriata*) and/or its breeding or hibernating sites (residences) attributable to the Designated Project during any phase of the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.6 The Proponent shall install, prior to construction and during the breeding season for western chorus frog (*Pseudacris triseriata*), and maintain, during construction, exclusion fencing to prevent western chorus frog (*Pseudacris triseriata*) from entering construction areas. In doing so, the Proponent shall:
- 8.6.1 determine the dates of the breeding season, based on ambient temperatures and in consultation with Environment and Climate Change Canada, for any year that construction shall occur; and
  - 8.6.2 ensure, based on the results of the surveys conducted pursuant to condition 8.5, that construction areas do not contain western chorus frog (*Pseudacris triseriata*) breeding residence prior to installing exclusion fencing.
- 8.7 The Proponent shall install, prior to construction and before the breeding season determined for that year pursuant to condition 8.6.1, and maintain, during construction and operation, exclusion fencing between the railway tracks located within the Designated Project Development Area and breeding and hibernating sites (residences) for western chorus frog (*Pseudacris triseriata*) identified through the surveys conducted pursuant to condition 8.5.
- 8.8 The Proponent shall only replace culverts located adjacent to breeding and hibernating sites (residences) for western chorus frog (*Pseudacris triseriata*), identified through the surveys conducted pursuant to condition 8.5, outside of the breeding season for western chorus frog (*Pseudacris triseriata*) determined pursuant to condition 8.6.1.
- 8.9 If any hibernating site (residence) for western chorus frog (*Pseudacris triseriata*) identified through the surveys conducted pursuant to condition 8.5 will be temporarily or permanently affected by the Designated Project, the Proponent shall replace the affected site (residence) with, at least, a one-to-one ratio of restored habitat in location(s) determined in consultation with

Environment and Climate Change Canada and the Town of Milton. The Proponent shall maintain the restored habitat throughout all phases of the Designated Project.

- 8.10 The Proponent shall design, prior to construction and in consultation with Environment and Climate Change Canada and Conservation Halton, and construct ecopassages under the railway tracks located within the Designated Project Development Area to ensure habitat connectivity for western chorus frog (*Pseudacris triseriata*). The Proponent shall maintain these ecopassages throughout construction and operation.
- 8.11 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada and Conservation Halton, a follow-up program to verify the accuracy of the environmental assessment and the effectiveness of mitigation measures as it pertains to the adverse environmental effects on western chorus frog (*Pseudacris triseriata*) attributable to the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the implementation of the follow-up program, the Proponent shall:
  - 8.11.1 monitor the use by western chorus frog (*Pseudacris triseriata*) individuals of the habitat restored pursuant to condition 8.9;
  - 8.11.2 monitor the use by western chorus frog (*Pseudacris triseriata*) individuals of the ecopassages constructed pursuant to condition 8.10;
  - 8.11.3 report the results of all monitoring conducted as part of the implementation of the follow-up program to Environment and Climate Change Canada and Conservation Halton pursuant to condition 2.7.2 to inform future regional habitat creation and restoration efforts; and
  - 8.11.4 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 8.11.1 or 8.11.2 demonstrate that modified or additional mitigation measures are required to mitigate adverse environmental effects on western chorus frog (*Pseudacris triseriata*) individuals attributable to the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.12 The Proponent shall conduct vegetation clearing outside of the breeding season for eastern meadowlark (*Sturnella magna*) and bobolink (*Dolichonyx oryzivorus*) in areas identified by the Proponent as habitat for eastern meadowlark (*Sturnella magna*) and bobolink (*Dolichonyx oryzivorus*) on figure 5 of the document entitled *Technical Data Report Terrestrial (Appendix E.16)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57).
- 8.13 The Proponent shall cause to be established and maintained, during construction and operation, 40.7 hectares of suitable replacement grassland habitat (containing hay and meadow fields) in the Luther Marsh Wildlife Management Area to compensate for the loss of eastern meadowlark (*Sturnella magna*), bobolink (*Dolichonyx oryzivorus*) and monarch butterfly (*Danaus plexippus*) suitable habitat within the Designated Project Development Area. The Proponent shall cause the suitable replacement grassland habitat to be established before removing the existing grassland habitat within the Designated Project Development Area.
- 8.14 The Proponent shall cause to be developed, prior to construction and in consultation with Environment and Climate Change Canada, a follow-up program to verify the accuracy of the

environmental assessment and determine the effectiveness of the mitigation measures as it pertains to the suitable grassland habitat established pursuant to condition 8.13. The Proponent shall cause the follow-up program to be implemented for a period of 20 years following the start of construction. As part of the implementation of the follow-up program, the Proponent shall cause to:

- 8.14.1 monitor the breeding success of eastern meadowlark (*Sturnella magna*) and bobolink (*Dolichonyx oryzivorus*) in the suitable grassland habitat;
  - 8.14.2 provide the results of the monitoring conducted as part of the implementation of the follow-up program to Environment and Climate Change Canada and other relevant authorities pursuant to condition 2.7.2;
  - 8.14.3 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 8.14.1 demonstrate that modified or additional mitigation measures are required to mitigate adverse environmental effects on meadowlark (*Sturnella magna*) and bobolink (*Dolichonyx oryzivorus*) attributed to the Designated Project. The Proponent shall cause these measures to be submitted to the Agency prior to them being implemented; and
  - 8.14.4 develop and implement, in consultation with Environment and Climate Change Canada, modified or additional mitigation measures and/or additional follow-up requirements if, after 20 years following the start of construction, the results of the monitoring referred to in condition 8.14.1 indicate that the suitable grassland habitat is not functioning as predicted during the environmental assessment as a replacement habitat for eastern meadowlark (*Sturnella magna*) and bobolink (*Dolichonyx oryzivorus*). The Proponent shall cause these modified or additional mitigation measures and/or additional follow-up requirements to be implemented until such time that monitoring results indicate that the suitable grassland habitat is functioning as predicted during the environmental assessment. The Proponent shall cause these modified or additional mitigation measures and/or additional follow-up requirements to be submitted to the Agency prior to them being implemented.
- 8.15 The Proponent shall identify, prior to construction and in consultation with Environment and Climate Change Canada, Conservation Halton and the Six Nations of the Grand River, foraging, nesting and overwintering habitat for snapping turtle (*Chelydra serpentina*) and midland painted turtle (*Chrysemys picta marginata*) within the Designated Project Development Area and within the Local Assessment Area, defined by the Proponent in section 3.2 of the document entitled *Technical Data Report Terrestrial (Appendix E.16)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57).
- 8.16 The Proponent shall implement, prior to operation, habitat enhancement features for snapping turtle (*Chelydra serpentina*) and midland painted turtle (*Chrysemys picta marginata*) in Indian Creek and in ponds located within the Designated Project Development Area and shall maintain these features throughout operation. In doing so, the Proponent shall locate constructed nesting mounds outside of areas where nesting habitat has been identified pursuant to condition 8.15.
- 8.17 The Proponent shall conduct in-water construction activities outside of the overwintering period for snapping turtle (*Chelydra serpentina*) (October 1 to April 30), unless not technically feasible. If the Proponent must conduct in-water construction activities within the overwintering period, the

Proponent shall have a qualified individual, who is a biologist, relocate snapping turtles (*Chelydra serpentina*) observed within in-water construction areas to an accredited facility for the duration of the overwintering period, prior to conducting any in-water construction activity.

- 8.18 The Proponent shall install, prior to construction, and maintain, throughout construction, exclusion fencing to prevent snapping turtle (*Chelydra serpentina*) from entering construction work areas. The Proponent shall take into account the location of the foraging, nesting and overwintering habitat identified pursuant to condition 8.15 when installing the exclusion fencing.
- 8.19 The Proponent shall install, prior to operation, and maintain, throughout operation, exclusion fencing between the nesting mounds constructed pursuant to condition 8.16 and roads located within the Designated Project Development Area. In doing so, the Proponent shall take into account the location of the foraging, nesting and overwintering habitat identified pursuant to condition 8.15 when installing the exclusion fencing.
- 8.20 With respect to all exclusion fencing referred to in conditions 8.18 and 8.19, the Proponent shall:
  - 8.20.1 install all exclusion fencing taking into account Ontario's Reptile and Amphibian Exclusion Fencing: Best Practices, Version 1.0. Species Technical Note;
  - 8.20.2 take seasonal variations into account when installing all exclusion fencing; and
  - 8.20.3 inspect all exclusion fencing at least monthly and repair as necessary.
- 8.21 The Proponent shall install and maintain, during all phases of the Designated Project, signs to notify drivers of the risk of turtle collisions along any temporary and permanent road located within the Designated Project Development Area.
- 8.22 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Conservation Halton and the Six Nations of the Grand River, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects on snapping turtle (*Chelydra serpentina*) and midland painted turtle (*Chrysemys picta marginata*) attributable to the Designated Project. The Proponent shall implement the follow-up program. As part of the implementation of the follow-up program, the Proponent shall:
  - 8.22.1 monitor, during the time that the Proponent shall maintain the exclusion fencing referred to in condition 8.18, the effectiveness of the fencing in preventing snapping turtle (*Chelydra serpentina*) and midland painted turtle (*Chrysemys picta marginata*) from entering in-water construction work areas;
  - 8.22.2 monitor, during all phases of the Designated Project, roads located within the Designated Project Development Area for turtle crossings and/or collisions with vehicles; and
  - 8.22.3 develop and implement modified or additional mitigation measures, taking into account Ontario's *Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario*, if the results of the monitoring referred to in condition 8.21.1 or 8.21.2 demonstrate that modified or additional mitigation measures are required to mitigate the risk to turtles, including the risk of collisions with vehicles. The Proponent shall submit these measures to the Agency prior to implementing them.

- 8.23 The Proponent shall submit sightings of turtles within the Designated Project Development Area during any phase of the Designated Project to the Natural Heritage Information Centre of the Ontario Ministry of Natural Resources and Forestry.
- 8.24 The Proponent shall implement measures during all phases of the Designated Project to mitigate the adverse environmental effects on barn swallow (*Hirundo rustica*) and bank swallow (*Riparia riparia*) attributable to the Designated Project. As part of these measures, the Proponent shall:
- 8.24.1 retain and maintain nesting habitat for barn swallow (*Hirundo rustica*) located in the barn identified by the Proponent on figure U24-1 submitted in response to Undertaking 24 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 939);
  - 8.24.2 install, prior to construction, artificial nesting structures to replace the artificial nesting habitat for barn swallow (*Hirundo rustica*) located in the shed identified by the Proponent on figure U24-1 submitted in response to Undertaking 24 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 939). The Proponent shall install the artificial nesting structures before removing the shed and shall maintain the structures during all phases of the Designated Project;
  - 8.24.3 manage stockpile slopes located within the Designated Project Development Area during construction in a manner that prevents bank swallow (*Riparia riparia*) from nesting in the stockpiles; and
  - 8.24.4 establish and maintain buffer zones and setbacks distances, in consultation with Environment and Climate Change Canada, if the Proponent encounters a barn swallow (*Hirundo rustica*) or bank swallow (*Riparia riparia*) nest during the removal of a culvert during any phase of the Designated Project.
- 8.25 The Proponent shall compensate for the loss of monarch butterfly (*Danaus plexippus*) habitat attributable to the Designated Project by establishing, in consultation with Environment and Climate Change Canada, 18.8 hectares of replacement habitat within the Designated Project Development Area. The Proponent shall maintain the replacement habitat throughout operation. The Proponent shall incorporate vegetation species in the replacement habitat that provide breeding and nectaring functions for monarch butterfly (*Danaus plexippus*).
- 8.26 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of mitigation measures as it pertains to the adverse environmental effects on monarch butterfly (*Danaus plexippus*) attributable to the Designated Project. The Proponent shall implement the follow-up program throughout operation. As part of the implementation of the follow-up program, the Proponent shall:
- 8.26.1 monitor the use by monarch butterfly (*Danaus plexippus*) of the grassland habitat established pursuant to condition 8.13;
  - 8.26.2 monitor the use by monarch butterfly (*Danaus plexippus*) of the replacement habitat established pursuant to condition 8.25;
  - 8.26.3 report the results the monitoring referred to in conditions 8.26.1 and 8.26.2 to Environment and Climate Change Canada pursuant to condition 2.7.2; and

- 8.26.4 develop and implement modified or additional mitigation if the results of the monitoring referred to in condition 8.26.1 or 8.26.2 demonstrate that modified or additional mitigation measures are required to mitigate the adverse environmental effects on monarch butterfly (*Danaus plexippus*) attributable to the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.27 The Proponent shall conduct pre-construction surveys of eastern milksnake (*Lampropeltis Triangulum*) in Tributary A and in wooded areas near where Indian Creek intersects the railway tracks. The Proponent shall develop the methodology for the surveys in consultation with Environment and Climate Change Canada and other relevant authorities.
- 8.28 If the presence of eastern milksnakes (*Lampropeltis Triangulum*) within the Designated Project Development Area is confirmed through the surveys conducted pursuant to condition 8.27, the Proponent shall:
- 8.28.1 implement, prior to construction and in consultation with Environment and Climate Change Canada, a snake capture and relocation program to remove eastern milksnakes (*Lampropeltis Triangulum*) from the Designated Project Development Area and relocate them in accordance with wildlife care protocols to suitable habitat within the Local Assessment Area, defined by the Proponent in section 3.2 of the document entitled *Technical Data Report Terrestrial (Appendix E.16)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57);
- 8.28.2 develop, prior to construction and in consultation with Environment and Climate Change Canada, measures to mitigate adverse environmental effects on eastern milksnake (*Lampropeltis Triangulum*) attributable to the Designated Project, in addition to the snake capture and relocation program referred to in condition 8.28. The Proponent shall implement these measures during all phases of the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them; and
- 8.28.3 determine, prior to construction and in consultation with Environment and Climate Change Canada, if any of the exclusion fencing referred to in conditions 8.6, 8.7, 8.18 and 8.19 can mitigate adverse environmental effects on eastern milksnake (*Lampropeltis Triangulum*) attributable to the Designated Project. If the Proponent determines that none of the exclusion fencing implemented for other listed species at risk can effectively mitigate adverse environmental effects on eastern milksnake (*Lampropeltis Triangulum*), the Proponent shall develop and implement, in consultation with Environment and Climate Change Canada, modified or additional mitigation measures for eastern milksnake (*Lampropeltis Triangulum*), which may include appropriately adapting any existing exclusion fencing. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.29 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on eastern milksnake (*Lampropeltis Triangulum*) attributable to the Designated Project. The Proponent shall implement the follow-up program. As part of the follow-up program, the Proponent shall:



- 8.29.1 monitor sightings of eastern milksnake (*Lampropeltis Triangulum*) during all phases of the Designated Project;
  - 8.29.2 report the results of the monitoring referred to in condition 8.29.1 to Environment and Climate Change Canada pursuant to condition 2.7.2; and
  - 8.29.3 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 8.29.1 demonstrate that modified or additional mitigation measures are required to mitigate the adverse environmental effects on eastern milksnake (*Lampropeltis Triangulum*) attributable to the Designated Project. The Proponent shall submit these measures to the Agency prior to implementing them.
- 8.30 The Proponent shall conduct, prior to construction in the area of Indian Creek, surveys for little brown myotis (*Myotis lucifugus*) habitat in thicket communities along Indian Creek and in the coniferous plantation and deciduous woodland fragment west of the railway tracks. If the results of the surveys indicate the presence of little brown myotis (*Myotis lucifugus*) habitat, the Proponent shall develop, in consultation with Environment and Climate Change Canada, mitigation measures to protect or replace the surveyed habitat. The Proponent shall submit the results of the surveys and the identified mitigation measures, if any, to the Agency prior to construction.
- 8.31 The Proponent shall provide awareness training on actions to take to protect wildlife to all Designated Project-related employees and contractors who may encounter wildlife within the Designated Project Development Area.
- 8.32 The Proponent shall design, prior to construction and in consultation with Environment and Climate Change Canada, Halton Municipalities, Conservation Halton and other relevant authorities, and maintain, throughout operation, a system of culverts and ecopassages within the Designated Project Development Area, including through the mainline embankment, pad tracks, the pad, and associated roadways, to retain habitat connectivity for all terrestrial and aquatic species expected to be present within the Designated Project Development Area, including listed species at risk, while meeting engineering requirements for safe railway and facility operation. The Proponent shall design and maintain all culverts and ecopassages taking into account Ontario's *Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario*.
- 8.33 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Halton Municipalities, Conservation Halton and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and the effectiveness of mitigation measures as it pertains to the adverse environmental effects on habitat connectivity attributable to the Designated Project, including the effectiveness of culverts and ecopassages referred to in condition 8.32. The Proponent shall implement the follow-up program throughout operation.
- 8.34 The Proponent shall develop, prior to construction and in consultation with Environment and Climate Change Canada, Halton Municipalities, Conservation Halton, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and other relevant authorities, a wildlife management and connectivity plan that takes into account the most recent detailed design of the Designated Project. The Proponent shall provide the plan to the Agency prior to construction. The Proponent shall implement the plan. The plan shall include:

- 8.34.1 mapping of wildlife habitat, travel patterns and existing and planned wildlife corridors within the Regional Assessment Area, defined by the Proponent in section 3.3 of the document entitled *Technical Data Report Terrestrial (Appendix E.16)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57);
- 8.34.2 how the Proponent shall maintain habitat connectivity for terrestrial species during all phases of the Designated Project, including how the Proponent has considered travel patterns and existing and planned wildlife corridors across the Regional Assessment Area and in adjacent lands within Halton Municipalities' Natural Heritage System during detailed design of the Designated Project;
- 8.34.3 how all travel corridors (including culverts and ecopassages referred to in condition 8.32) and buffering that the Proponent shall implement in the Designated Project Development Area are adequate (including their design and dimension) based on wildlife species expected to be present within the Designated Project Development Area;
- 8.34.4 how the detailed design and operation of the Designated Project's truck entrance on Britannia Road will not adversely affect Halton Municipalities' Natural Heritage System;
- 8.34.5 all measures to be implemented by the Proponent to mitigate the adverse environmental effects of the Designated Project on wildlife during any phase of the Designated Project, including the mitigation measures set out in this document as it pertains to listed species at risk and migratory birds; and
- 8.34.6 the information referred to in condition 2.7 for each follow-up program to be implemented by the Proponent to verify the accuracy of the environmental assessment and determine the effectiveness of the mitigation measures as it pertains to wildlife, including listed species at risk and migratory birds.

## **9 Human health**

- 9.1 The Proponent shall develop, prior to construction and in consultation with Health Canada and other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to adverse environmental effects on human health caused by changes in concentrations of contaminants of potential concern in country foods attributable to the Designated Project. The Proponent shall implement the follow-up program during construction and for at least the first five years of operation. As part of the implementation of the follow-up program, the Proponent shall:
  - 9.1.1 monitor concentrations of benzo(a)pyrene in soils within the Local Assessment Area, as defined by the Proponent on figure 1 of the document entitled *Technical Data Report Human Health Risk Assessment (Appendix E.7)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57), and compare monitoring results against modelling predictions estimated by the Proponent during the environmental assessment, as referred to by the Proponent in table IR8.3-1 submitted in response to Information Request 8.3 (Canadian Impact Assessment Registry Reference Number 80100, Document Number 714); and
  - 9.1.2 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 9.1.1 demonstrate that modified or additional mitigation measures are required to ensure that concentrations of contaminants of

potential concern in soils attributable to the Designated Project are below the Canadian Council of Ministers of the Environment's *Soil Quality Guidelines for the Protection of Environmental and Human Health*. The Proponent shall submit these measures to the Agency prior to implementing them.

- 9.2 The Proponent shall conduct, prior to construction and in consultation with Health Canada, a sleep disturbance analysis based on an evaluation of the distribution of baseline and predicted nighttime noise events. If the results of this evaluation demonstrate that nighttime noise events attributable to the Designated Project may exceed 60 dBA  $L_{max}$  outdoors more than 15 times per night, at any point of reception identified by the Proponent on figure 3 of the *Technical Data Report Noise Effects Assessment (Appendix E.10)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57), the Proponent shall develop, in consultation with Health Canada, and implement, prior to construction, modified or additional mitigation measures to ensure that nighttime noise events attributable to the Designated Project do not exceed 60 dBA  $L_{max}$  outdoors more than 15 times per night at any point of reception. The Proponent shall submit the results of the analysis and any modified or additional mitigation measure to the Agency prior to implementing them.
- 9.3 The Proponent shall develop, prior to operation, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects on human health caused by nighttime noise events attributable to the Designated Project during operation, including any modified or additional mitigation measure developed and implemented pursuant to condition 9.2. The Proponent shall implement the follow-up program for at least two years following the start of operation. The Proponent shall determine, based on the results of the follow-up program, if additional monitoring is required after the first two years following the start of operation. As part of the implementation of the follow-up program, the Proponent shall:
- 9.3.1 monitor nighttime noise events attributable to the Designated Project, at the same points of reception considered in the sleep disturbance analysis conducted pursuant to condition 9.2;
  - 9.3.2 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 9.3.1 demonstrate that nighttime noise events attributable to the Designated Project experienced at any point of reception exceed 60 dBA  $L_{max}$  outdoors more than 15 times per night, so that nighttime noise events attributable to the Designated Project experienced at any point of reception do not exceed 60 dBA  $L_{max}$  outdoors more than 15 times per night; and
  - 9.3.3 compile the results of the monitoring referred to in condition 9.3.1 on a monthly basis and make these results available upon request.

## **10 Socioeconomic effects**

- 10.1 The Proponent shall provide additional agricultural lease opportunities or rehabilitate or improve agricultural lands owned by the Proponent within properties adjacent to the Designated Project Development Area in consultation with Halton Municipalities and representatives of local farmers and farming organizations, including the Halton Region Federation of Agriculture.

**11 Physical and cultural heritage and structures, sites or things of historical, archaeological, paleontological or architectural significance**

- 11.1 The Proponent shall assess, prior to construction, the condition of each cultural heritage property identified by the Proponent in table 6.4 of the document entitled *Technical Data Report Cultural Heritage Assessment (Appendix E.3)* (Canadian Impact Assessment Registry Reference Number 80100, Document Number 57) using photographic records.
- 11.2 The Proponent shall document the land use history and construction details of the shed located at 5269 Tremaine Road, prior to removing the shed. In doing so, the Proponent shall:
- 11.2.1 make a photographic record of the shed and salvage any component of the building in which there is public or private interest; and
  - 11.2.2 submit a report containing the land use history, construction details and photographic record made pursuant to condition 11.2.1 to the Agency and potentially affected parties. The Proponent shall also make that information available to a local library or museum.
- 11.3 The Proponent shall not carry out any construction activity associated with the Designated Project within 50 metres of any cultural heritage property referred to in condition 11.1, unless required to meet engineering requirements for safe railway and facility operation. If the Proponent must carry out any construction activity within 50 metres of a cultural heritage property, the Proponent shall:
- 11.3.1 determine, prior to carrying out any such construction activity, maximum acceptable vibration levels that shall not be exceeded to protect the property;
  - 11.3.2 conduct continuous monitoring, during any such construction activity, of vibration levels at the property; and
  - 11.3.3 develop and implement modified or additional mitigation measures if the results of the monitoring referred to in condition 11.3.2 exceed the maximum acceptable vibration levels determined pursuant to condition 11.3.1 to ensure that vibration levels remain below acceptable levels. The Proponent shall submit these measures to the Agency prior to implementing them.
- 11.4 The Proponent shall inspect each cultural heritage property referred to in condition 11.1 as soon as practical after construction in the vicinity of each property has ended and shall compare the property's condition after construction to its condition prior to construction, based on the photographic records made pursuant to condition 11.1, to determine if any vibration-related damage has occurred as a result of construction. If the inspection demonstrates that vibration-related damage has occurred, the Proponent shall make the necessary repairs to the damaged property in a timely manner.
- 11.4.1 The Proponent shall submit the results of all inspections, including a description of any damage that has occurred and of any repair that the Proponent has made, to the Agency and potentially affected parties within 30 days of the Proponent completing all inspections.
- 11.5 The Proponent shall develop, prior to construction and in consultation with the Ontario Ministry of Heritage, Sport, Tourism and Culture, the Town of Milton and potentially affected parties, a cultural heritage property maintenance and re-use plan in relation to all cultural heritage

properties referred to in condition 11.1. The Proponent shall implement the plan throughout all phases of the Designated Project. As part the plan, the Proponent shall set out:

- 11.5.1 how the Proponent shall preserve the value of all cultural heritage properties;
  - 11.5.2 how the Proponent shall secure all cultural heritage properties, prior to construction, and inspect and maintain them in working order, during all phases of the Designated Project, or until such time any viable adaptive re-use is identified for any given property; and
  - 11.5.3 the criteria that may be used to identify any feasible adaptive re-use for any given cultural heritage property and, if an adaptive re-use is identified for a property, to determine the terms of that re-use.
- 11.6 If, for any cultural heritage property referred to in condition 11.1, the Proponent has not identified a feasible adaptive re-use pursuant to the criteria referred in condition 11.5.3 three years after the beginning of operation, the Proponent shall conduct, in consultation with the Ontario Ministry of Heritage, Sport, Tourism and Culture, Halton Municipalities and the Town of Milton, a Heritage Impact Assessment to determine whether the property(ies) should be preserved, relocated or demolished with appropriate mitigation. The Proponent shall submit the results of the Heritage Impact Assessment to the Agency, the Ontario Ministry of Heritage, Sport, Tourism and Culture, the Town of Milton and potentially affected parties within 30 days of the Heritage Impact Assessment being completed.
- 11.7 The Proponent shall conduct any controlled salvage excavation of archaeological resources required for the Designated Project during any phase of the Designated Project in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation and taking into account the Ontario Ministry of Heritage, Sport, Tourism and Culture's *Standards and Guidelines for Consultant Archaeologists*.
- 11.8 The Proponent shall develop, prior to construction and in consultation with the Ontario Ministry of Heritage, Sport, Tourism and Culture, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation, an archaeological and cultural resources protection plan for any previously unidentified structures, sites or things of historical, archaeological, paleontological or architectural significance discovered within the Designated Project Development Area. The Proponent shall implement the plan during all phases of the Designated Project. As part of the plan, the Proponent shall set out:
- 11.8.1 how the Proponent will apply a chance find procedure in the event that previously unidentified structures, sites or things of historical, archaeological, paleontological or architectural significance are discovered within the Designated Project Development Area by the Proponent or brought to the attention of the Proponent by another party during any phase of the Designated Project. As part of the chance find procedure, the Proponent shall:
    - 11.8.1.1 immediately halt work at the location of the discovery, except for actions required to be undertaken to protect the integrity of the discovery;
    - 11.8.1.2 delineate an area of at least 20 metres around the discovery as a no-work zone;
    - 11.8.1.3 inform the Agency, the Ontario Ministry of Heritage, Sport, Tourism and Culture, Halton Municipalities, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation within 24 hours of the

discovery, and allow the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation to monitor archaeological works at the location of the discovery;

11.8.1.4 have a qualified individual, who is a registered archeologist under the *Ontario Heritage Act*, conduct an assessment at the location of the discovery; and

11.8.1.5 consult with the Ontario Ministry of Heritage, Sport, Tourism and Culture, Halton Municipalities, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation with respect to applicable legislative or legal requirements and associated regulations and protocols respecting the discovery, recording, transferring and safekeeping of previously unidentified structures, sites or things of historical, archaeological, paleontological or architectural significance.

11.9 The Proponent shall develop, prior to construction and in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, the Huron-Wendat Nation and the Ontario Ministry of Heritage, Sport, Tourism and Culture a procedure with respect to the discovery, handling, recognition, recording, transferring and safekeeping of any human remain (including any ossuary) discovered within the Designated Project Development Area during any phase of the Designated Project. As part of the procedure, the Proponent shall:

11.9.1 immediately halt work at the location of the discovery, except for actions required to be undertaken to protect the integrity of the discovery;

11.9.2 delineate an area of at least 20 metres around the discovery as a no-work zone;

11.9.3 inform appropriate local, municipal and provincial authorities as it pertains to the handling of human remains as soon as possible, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation within 24 hours of the discovery, and allow the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation to monitor archaeological works at the location of the discovery;

11.9.4 have a qualified individual, as it pertains to ossuaries and chosen in consultation with the Huron-Wendat Nation, conduct an assessment at the location of the discovery;

11.9.5 in the event that there is any indication that the discovered human remains may be an ossuary, leave the area permanently undisturbed, unless an agreement is reached with the Huron-Wendat Nation to take an alternative action; and

11.9.6 not recommence work within the no-work zone referred to in condition 11.9.2, unless authorized by relevant authorities and subject to the requirement of condition 11.9.4.

11.10 The Proponent shall require all employees and contractors associated with the Designated Project to undertake, before they conduct any construction activity within the Designated Project Development Area, an awareness training program about the procedures related to the discovery and protection of structures, sites or things of historical, archaeological, paleontological or architectural significance referred to in condition 11.8 and the procedures related to the discovery and protection of human remains referred to in condition 11.9. As part of the awareness training program, the Proponent shall include information on the recognition of artifacts related to Indigenous and Euro-Canadian material cultures that may be found within the Designated Project Development Area.

11.11 The Proponent shall discuss with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation about opportunities to return artifacts of Indigenous origin excavated as part of the environmental assessment to the communities for preservation and interpretation. The Proponent shall seek consent from the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and the Huron-Wendat Nation before including, as part of the annual report referred to in condition 2.12, information on any measure implemented as a result of these discussions.

## **12 Effects of the environment on the Designated Project**

12.1 The Proponent shall develop, prior to construction, an infrastructure protection plan that describes how the Proponent shall maintain Designated Project infrastructures secure and in good working order during all phases of the Designated Project and how the Proponent shall restore any damaged infrastructure and prevent future damages, including in the event of an extreme weather event. The Proponent shall submit the plan to the Agency prior to construction. The Proponent shall implement the plan during all phases of the Designated Project. As part the implementation of the plan, the Proponent shall:

12.1.1 monitor meteorological conditions, including by receiving advanced notice of flood-producing severe rainfall events;

12.1.2 regularly inspect all erosion and sediment control devices installed within the Designated Project Development Area, including during and following rainfall events, and repair any defective or damaged device in a timely manner;

12.1.3 report, as part of the annual report referred to in condition 2.12, on any major repair done pursuant to condition 12.1.2; and

12.1.4 backfill all open excavations in a timely manner, unless not technically feasible.

## **13 Independent Environmental Monitor**

13.1 The Proponent shall retain, prior to construction, the services of an independent environmental monitor, who is a qualified individual as it pertains to environmental monitoring in Ontario, to observe, record, and report on the implementation of the conditions set out in this document during all phases of the Designated Project.

13.2 As part of the reporting requirement pursuant to condition 13.1, the independent environmental monitor shall advise the Proponent if, in their view, any Designated Project activity does not comply with any condition set out in this document. The independent environmental monitor shall also advise the Proponent which measure(s) in their view should be taken in respect to any activity that does not comply with any condition set out in this document.

13.3 The Proponent shall require the independent environmental monitor to prepare reports that include:

13.3.1 a description, including through photo evidence, of the Designated Project activities that occurred and the mitigation measures that were applied during the period covered by the report; and

- 13.3.2 a description, including through photo evidence, of occurrence(s) of any alleged non-compliance with any condition set out in this document, as referred to in condition 13.2, observed during the period covered by the report, including:
  - 13.3.2.1 the date of the occurrence(s) of non-compliance;
  - 13.3.2.2 whether any Designated Project activity was changed or stopped as a result of the occurrence(s) of non-compliance;
  - 13.3.2.3 how the occurrence(s) of non-compliance was or were corrected by the Proponent and the date that the corrective action(s) was or were completed by the Proponent; and
  - 13.3.2.4 if any, the status of any pending occurrence of non-compliance that has not been corrected yet by the Proponent and a description of any adverse environmental effects associated with the continued occurrences of non-compliance.
- 13.4 The Proponent shall require the independent environmental monitor to provide the reports referred to in condition 13.3 directly to the Agency, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, the Huron-Wendat Nation and relevant federal authorities, at a regular frequency to be determined in consultation with the Agency. The Proponent shall require the independent environmental monitor to retain the reports for 15 years following their production.
- 13.5 The Proponent shall require the independent environmental monitor to consult with the Agency, prior to construction, to determine which type of potential occurrence of non-compliance with any condition set out in this document may need to be reported to the Agency more frequently than the regular reports required pursuant to condition 13.3, including how and when this reporting shall occur based on the likelihood of these types of potential occurrence of non-compliance to cause adverse environmental effects and the magnitude of these effects. If the independent environmental monitor observes any of these potential occurrence(s) of non-compliance during any phase of the Designated Project, the Proponent shall require the independent environmental monitor to report this occurrence directly to the Agency, independently of the regular reports required pursuant to condition 13.3.

#### **14 Accidents and malfunctions**

- 14.1 The Proponent shall take all reasonable measures to prevent accidents and malfunctions that may result in adverse environmental effects and mitigate any adverse environmental effect from accidents and malfunctions that does occur. In doing so, the Proponent shall:
  - 14.1.1 store hazardous materials in designated areas with proper primary and secondary containment and in accordance with appropriate federal, provincial and municipal safety procedures and requirements;
  - 14.1.2 store combustible and flammable materials in designated areas at least six metres away from the Designated Project's property line and buildings;
  - 14.1.3 audit shipments for compliance with safe loading practices; and
  - 14.1.4 locate spill containment kits in designated locations within the Designated Project Development Area where there is a higher risk of spills.



- 14.2 The Proponent shall consult, prior to construction, with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and relevant authorities on the measures to be implemented to prevent accidents and malfunctions.
- 14.3 The Proponent shall develop, prior to construction and in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and relevant authorities, an accident and malfunction response plan in relation to the Designated Project. The accident and malfunction plan shall include:
- 14.3.1 a description of the types of accidents and malfunctions that may cause adverse environmental effects during any phase of the Designated Project, including spills and spills of hazardous material;
  - 14.3.2 the measures, including management and organizational procedures, to be implemented in response to each type of accident and malfunction referred to in condition 14.3.1 to mitigate any adverse environmental effect caused by the accident or malfunction. These measures shall include:
    - 14.3.2.1 measures to prevent or minimize containerized material spills from spreading over land surfaces and measures to recover spilled materials from water bodies, as required;
    - 14.3.2.2 measures to manage the stormwater management system to prevent contaminated water from flowing downstream in case of a spill and, if a spill adversely affects a stormwater management pond, measures to deter birds from using the pond until water quality is restored;
    - 14.3.2.3 measures to identify any sensitive habitats where response efforts shall be prioritized; and
    - 14.3.2.4 measures to reduce fire hazard and enhance fire preparedness;
  - 14.3.3 the locations of spill containment kits within the Designated Project Development Area; and
  - 14.3.4 a description of how the Proponent will evacuate its property and participate in coordinated evacuation procedures with relevant authorities in the case of an accident or malfunction requiring evacuation.
- 14.4 The Proponent shall maintain the accident and malfunction response plan referred to in condition 14.3 up-to-date during all phases of the Designated Project so that it remains consistent with the Proponent's Network Operations Emergency Response Plan. The Proponent shall submit any updated accident and malfunction response plan to the Agency and to the parties being consulted during the development of the plan within 30 days of the plan being updated.
- 14.5 In the event of an accident or malfunction with the potential to cause adverse environmental effects, the Proponent shall immediately implement the measures appropriate to the accident or malfunction referred to in condition 14.3.2 and shall:
- 14.5.1 implement the communication plan referred to in condition 14.6 as it relates to accidents and malfunctions;
  - 14.5.2 notify, as soon as possible, the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, potentially affected parties and relevant authorities of the accident or

malfunction, and notify the Agency in writing no later than 24 hours following the accident or malfunction. For the notification to the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, potentially affected parties and the Agency, the Proponent shall specify:

- 14.5.2.1 the date when and location where the accident or malfunction occurred;
- 14.5.2.2 a summary description of the accident or malfunction; and
- 14.5.2.3 a list of any substance potentially released into the environment as a result of the accident or malfunction.

14.5.3 submit a written report to the Agency no later than 30 days after the day on which the accident or malfunction occurred. The written report shall include:

- 14.5.3.1 a detailed description of the accident or malfunction and of its adverse environmental effects;
- 14.5.3.2 a description of the measures that were taken by the Proponent to mitigate the adverse environmental effects caused by the accident or malfunction;
- 14.5.3.3 any view from the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties and advice from relevant authorities received with respect to the accident or malfunction, its adverse environmental effects and the measures taken by the Proponent to mitigate these adverse environmental effects;
- 14.5.3.4 a description of any residual adverse environmental effect and any modified or additional measure required by the Proponent to mitigate residual adverse environmental effects; and
- 14.5.3.5 details concerning the implementation of the accident or malfunction response plan referred to in condition 14.3.

14.5.4 submit a written report to the Agency no later than 90 days after the day on which the accident or malfunction occurred that includes a description of the changes made to avoid a subsequent occurrence of the accident or malfunction and of the modified or additional measure(s) implemented by the Proponent to mitigate and monitor residual adverse environmental effects and to carry out any required progressive reclamation, taking into account the information submitted in the written report pursuant to condition 14.5.3. The report shall include all additional views from the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties and advice from relevant authorities received by the Proponent since the views and advice referred to in condition 14.5.3.3 were received by the Proponent.

14.6 The Proponent shall develop, in consultation with the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties, a communication plan for accidents and malfunctions occurring in relation to the Designated Project, including accidents and malfunctions occurring within the Designated Project Development Area which may affect area(s) outside of the Designated Project Development Area. The Proponent shall develop the communication plan prior to construction and shall implement and keep it up-to-date during all phases of the Designated Project. The plan shall include:

- 14.6.1 the types of accidents and malfunctions requiring the Proponent to notify the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties;
- 14.6.2 the manner by which the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties shall be notified by the Proponent of an accident or malfunction and of any opportunity to assist in the response to the accident or malfunction; and
- 14.6.3 the contact information of the representatives of the Proponent that the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties may contact and of the representatives of the Mississaugas of the Credit First Nation, the Six Nations of the Grand River and potentially affected parties to which the Proponent shall provide notification.

## **15 Schedules**

- 15.1 The Proponent shall submit to the Agency a schedule for all conditions set out in this document no later than 60 days prior to the start of construction. This schedule shall detail all activities planned to fulfill each condition set out in this document and the commencement and estimated completion month(s) and year(s) for each of these activities.
- 15.2 The Proponent shall submit to the Agency a schedule outlining all activities required to carry out all phases of the Designated Project no later than 60 days prior to the start of construction. The schedule shall indicate the commencement and estimated completion month(s) and year(s) and duration of each of these activities, including the commencement and estimated completion of each of the three construction phases, the commencement of the operation phase and the commencement of the operation phase at which the Designated Project operates at its full operational capacity.
- 15.3 The Proponent shall submit to the Agency in writing an update to schedules referred to in conditions 15.1 and 15.2 every year no later than October 31.
- 15.4 The Proponent shall provide the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, the Huron-Wendat Nation and potentially affected parties with the schedules referred to in conditions 15.1 and 15.2 and any update to the initial schedule made pursuant to condition 15.3 at the same time the Proponent provides these documents to the Agency.

## **16 Record keeping**

- 16.1 The Proponent shall maintain all records relevant to the implementation of the conditions set out in this document. The Proponent shall provide the aforementioned records to the Agency upon demand within a timeframe specified by the Agency.
- 16.2 The Proponent shall retain all records referred to in condition 16.1 at a facility in Canada and shall provide the address of the facility to the Agency. The Proponent shall notify the Agency at least 30 days prior to any change to the physical location of the facility where the records are retained, and shall provide to the Agency the address of the new location.

16.3 The Proponent shall notify the Agency of any change to the contact information of the Proponent.