

APPENDIX A
CEAA Scoping Document

Transport Canada - Surface Programs

Scoping Document for the Mississauga BRT project, Mississauga Ontario.

Introduction

Transport Canada and Infrastructure Canada propose to provide funding to the City of Mississauga and GO Transit for the proposed Mississauga Bus Rapid Transit (BRT) project. Transport Canada has determined that this proposal will require an environmental assessment under the *Canadian Environmental Assessment Act*.

The project will see the implementation of a Bus Rapid Transit (BRT) corridor across the City of Mississauga from Winston Churchill Boulevard in the west to Renforth Drive in the east which will be used by GO Transit and Mississauga Transit to provide a higher order of bus transit.

The BRT corridor will combine the use of a grade-separated right-of-way for buses with transit priority measures along major roadways with access provided through 12 stations (11 new and 1 existing). Transport Canada and Infrastructure Canada are Responsible Authorities (RA) in relation to the project.

In addition, Fisheries and Oceans Canada are expected to be RAs for the project. Environment Canada and Health Canada possess specialist advice that may be necessary to conduct the assessment, and are expected to participate in the process as expert federal authorities.

Transport Canada has reviewed the Project Description, and has prepared this Scoping Document to provide direction to the proponent on what issues need to be addressed in the screening report, including specific direction on the scope of project and the scope of the assessment.

Background

The Mississauga BRT is the Mississauga segment of GO Transit's Inter-Regional Bus Rapid Transit (BRT) (also known as the Mississauga Transitway) received provincial environmental assessment approval in July 1993. An addendum was subsequently approved in March 2005. In December 2002, GO included the Mississauga Transitway from Ridgeway Drive to Renforth Drive along Highway 403, Eastgate Parkway, and Eglinton Avenue corridors as part of the Provincial Inter-Regional Bus Rapid Transit study from Oakville in the west to Pickering in the east. Accordingly, the Mississauga Transitway is now known as the Mississauga Segment of the Provincial Inter-Regional Bus Rapid Transit system (Mississauga BRT).

The environmental analysis and the technical information in the Provincial Environmental Assessment and the subsequent Addendum provided the basis for this scoping document. Although there is a need to update the analysis in the provincial EA

process in order to reflect the requirements of the *Canadian Environmental Assessment Act*, for some components of the screening, analysis and information may be considered and contribute to the current assessment. However, the analysis and conclusions should also reflect the ongoing work being undertaken during the preliminary design phase of this project.

It is noted that this project has undergone a provincial assessment, in accordance with the EA Act of Ontario (Revised Statutes of Ontario, 1980, Chapter 140, Section 5(3)). Methods to achieve a coordinated process that minimizes duplication of effort should continue to be explored throughout the process.

Scope of Project

In accordance with section 15 of the *Canadian Environmental Assessment Act*, the scope of the project must include the construction, operation, modification, decommissioning or abandonment of the project, including:

- Segment 1 - Winston Churchill Boulevard to Erin Mills Parkway including the development of two BRT stations and approximately 1.8 km of dedicated busway with grade separation at all interchange ramps and arterials on the north side of Highway 403. Both stations would have a park and ride component Highway 403 interchange modifications would be required at Winston Churchill Boulevard and Erin Mills Parkway.
- Segment 5 – City Centre Station to Hurontario Street including modifications to the existing Mississauga Transit City Centre Terminal to provide a dedicated BRT stop. A dedicated busway will be constructed from Centre View Drive with full grade separation from Hurontario Street.
- Segment 6 – Hurontario Street to Cawthra Road: including approximately 2.2 km of dedicated busway with full grade separation at Hurontario Street, Central Parkway, Highway 403 ramps and Cawthra Road. One BRT station (Central Parkway Station) is included in this segment.
- Segment 7 – Cawthra Road to Eglinton Avenue East/Creebank Road including approximately 3.7 km of dedicated busway with full grade separation at Cawthra Road, Tomken Road, Dixie Road, Eastgate Parkway, Fieldgate Drive, Tahoe Boulevard and Eglinton Avenue East. Four BRT Stations (Cawthra Station, Tomken Station, Dixie Station and Tahoe Station) are included in this segment with park and ride facilities at Cawthra Station and Dixie Station.
- Segment 8 – Eglinton Avenue East/Creebank Road to Renforth Station including approximately 3.2 km of dedicated busway with full grade separation at Eglinton Avenue East, Etobicoke Creek, Spectrum Drive, Satellite Drive, Orbitor Drive, Explorer Drive and Commerce Boulevard. Four BRT Stations (Etobicoke Creek

Station, Spectrum Station, Orbitor Station and Renforth Station) are included in this segment.

It should be clarified that the scope of the project does not include the current operations related to bus-bypass shoulders on Highway 403 that connect the east and west sections of the project

The screening report should provide a complete description of each component of the federal project, and the associated physical works and activities. The scope of project may be further refined when additional information regarding the specific project components and alignment has been provided.

Purpose of the Project

The Screening report should include a description of the purpose of the project in order to provide context for the assessment. Information for this section can be drawn from Section 4: Identification and Analysis of Alternatives of the Provincial Environmental Assessment as well as the Business Case document to be provided to Transport Canada

Scope of Assessment

Section 16 (1) of the Act identifies the factors that need to be considered in an environmental assessment at the screening level:

- 16(1) *Every screening...shall include a consideration of the following factors:*
- (a) the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;*
 - (b) the significance of the effects referred to in paragraph (a);*
 - (c) comments from the public that are received in accordance with this Act and the regulations;*
 - (d) measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project; and*
 - (e) any other matter relevant to the screening... that the responsible authority... may require to be considered.*

It should also be noted that that the definitions of *environment* and *environmental effect* under the Act are as follows:

"Environment" means the components of the Earth, and includes:

- a) land, water and air, including all layers of the atmosphere;
- b) all organic and inorganic matter and living organisms; and

- c) the interacting natural systems that include components referred to in paragraphs (a) and (b).

"Environmental effect" means, with respect to a project:

- a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*,
- b) any effect of any such change referred to in paragraph (a) on
 - (i) health and socio-economic conditions,
 - (ii) physical and cultural heritage,
 - (iii) the current use of lands and resources for traditional purposes by aboriginal persons, or
 - (iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or
- c) any change to the project that may be caused by the environment,

When these terms are used in this document their meaning is as defined above.

As such, the scope of the assessment for the proposed Mississauga BRT includes:

The environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project, and any cumulative environmental effects that are likely to result from the project in combination with other approved projects or activities that have been or will be carried out.

The screening report should indicate the study area boundaries for the assessment, including both spatial and temporal boundaries for both the construction and operation phases of the project (and decommissioning, if relevant). These boundaries should reflect the geographic range and temporal extent over which the project's environmental effects may occur, even if these effects extend beyond the project footprint.

Scope of Factors

The scope of the factors to be considered in the assessment should include, but may not necessarily be limited to, potential effects (including cumulative effects) on the following environmental components: air quality, noise and vibration, surface water quality and quantity, fish and fish habitat, groundwater quality and quantity, surface geology and soils, vegetation and wetlands, wildlife, including migratory birds, and species of conservation concern. More detail on each of these components is provided below.

Air Quality

The screening report should provide a description of air quality in the study area, including a summary of current information available from the nearest air quality monitoring station(s) operated by the Ontario Ministry of the Environment.

The environmental effects analysis should address the impacts associated with the construction phase, such as diesel emissions from the operation of heavy equipment, and the generation of dust during construction activities. It should also address potential local and regional impacts during operation, such as emissions associated with increased service levels on the commuter bus network. The air quality assessment should consider the potential adverse impacts to sensitive receptors, as well as positive impacts attributed to offsetting private vehicle use. The screening report should also address any potential human health effects associated with negative impacts on air quality caused by the project.

Mitigation measures should be identified to reduce dust/particle emissions/formation from construction activities and construction vehicle movements to minimize air emissions during the construction phase.

Climate and Greenhouse Gases should also be considered within the regional context and specific design and operational measures should be identified that reduce emissions.

When drawing conclusions about the significance of impacts, reference should be made to the appropriate guidelines, such as the *National Ambient Air Quality Objectives*. Where positive or neutral impacts are expected, the report should provide rationale to support the conclusions including quantitative data to the extent possible.

Noise and vibration

The addendum included a commitment to include additional information from a detailed noise analysis. This should include a qualitative description of the neighbourhoods and land uses near the project site, and should identify the location of and distance from residential communities and other sensitive receptors in the study area, such as hospitals, daycares and senior's residences. Aerial photos or maps to support the text should be included. The report should describe the existing ambient conditions, using actual measurements where possible, together with a description of land uses and point sources that contribute to existing conditions.

The environmental effects analysis should indicate, using quantitative information to the extent possible, what additional contribution the project may make during both the construction and operation phases. For the construction phase, the analysis should specifically describe what kinds of construction activities are likely to take place in the vicinity of the identified noise receptors, particularly for activities such as pile driving. Information on the communities and residences adjacent to the rail line should be included within the analysis. Particular attention should be paid to the potential effects on

the identified noise sensitive uses in the study area. Information should be provided for both daytime (16-hour) and night-time (8-hour) scenarios, consistent with the applicable provincial protocols.

Specifically, the analysis should include the following:

- Land-use map sensitive sites – (residences, schools, day-cares, hospitals and nursing homes should be highlighted)
- Ambient noise levels
- Predicted noise levels during construction & operation
- Indication of any changes in noise levels
- Comparison of predicted levels with relevant guidelines
- Specifics of noise abatement measures

The screening report should also address potential human health effects associated with negative impacts caused by the project. When drawing conclusions about the significance of impacts, reference should be made to the relevant guidelines. Where positive or neutral impacts are expected, the report should provide rationale to support the conclusions, including quantitative data to the extent possible.

Surface Water Quality and Quantity

Construction, operation or maintenance works over or near watercourses, wetlands or other water bodies (such as watercourse crossings and site grubbing) may impact water quality if there is the potential for the release of deleterious substances (including sediment) into receiving waters. Substances (such as sediment) that smother nesting areas or spawning grounds, or interfere with reproduction, feeding or respiration of fish, may be considered deleterious. Runoff from roads and bridges typically contains sediment as well as PAH's, oil, grease, and heavy metals that, in elevated levels, may be harmful to aquatic biota. In general, any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat may be considered deleterious.

Watercourse crossings, stormwater management and work within wetland areas have the potential to impact water quality as there is the potential for the release of deleterious substances into watercourses and wetlands. Depending on historical land use, work in the water could disturb contaminants and release them into the water column. Bridge deck drains could release road contaminants (including toxic spills and de-icing chemicals applied for winter maintenance) directly into a watercourse, providing little opportunity for emergency personnel to block off all of the drains in the event of a vehicular accident/tanker truck spill on the bridge.

The screening report should identify the name, location and characteristics of any water bodies in the project area. For the Mississauga BRT, this should include:

- Little Etobicoke Creek
- Cooksville Creek

- Etobicoke Creek

In addition, the provincial environmental assessment identified several unnamed watercourse crossings through out the study area. These watercourses should be included in the analysis for this factor.

The environmental effects analysis should identify the potential impact of the project on these watercourses, including the impacts of any watercourse crossing structures that may need to be installed or modified. In particular, the report should consider potential impacts on water quality resulting from the project.

The report should also describe the existing and proposed site drainage, including storm water management, and should include potential environmental and related human health effects on the water quality and quantity of receiving water bodies from storm water run-off and spills, during both the construction and operation phases, and describe appropriate mitigation measures to address any effects (i.e. sediment and erosion control).

Also, the provincial EA committed to additional work and further identification of mitigation at the Cooksville creek watercourse crossing. The design and mitigation strategy at this crossing should be re examined as part of the CEAA screening.

The screening report should also indicate whether any of these watercourses are navigable, and whether approval under the *Navigable Waters Protection Act* will be required. Please note that the approvals process for the NWPA is separate from the CEAA process.

Fish and Fish Habitat

The Provincial Addendum identified the need to undertake detailed hydraulic, geomorphic and fish habitat assessments for this project. Information resulting from these studies should be considered in the analysis for this factor and include the identification of any impacts the project may have, including the impacts of watercourse crossing structures. Fisheries and Oceans Canada (DFO) will review all watercourse crossings for impacts to fish and fish habitat, in accordance with the Habitat Protection Provisions of the *Fisheries Act*.

All water crossing works should be designed in a way that avoids the Harmful Alteration, Disruption or Destruction (HADD) of fish habitat. However, where impacts are anticipated to be unavoidable and an authorization for the HADD is deemed appropriate by DFO, mitigation measures (including compensation) must be incorporated into the project, consistent with the No Net Loss Principle, outlined in DFO's Policy for the Management of Fish Habitat (1986). Additional guidance from DFO should be requested as soon as a need for a HADD authorization is identified.

Groundwater Quality and Quantity

Although groundwater was not considered in the Provincial EA process, the screening report should provide a description of groundwater resources in the study area, including the depth of the water table, and should indicate whether the groundwater is a source of potable water. The report should identify potential impacts of the project's demolition, construction, and operation phases on groundwater quality and quantity. This will be particularly relevant where bridge crossings are modified (in cases where excavation activities are required). When drawing conclusions about the significance of impacts, reference should be made to the appropriate guidelines, such as the *Guidelines for Canadian Drinking Water Quality*.

Surface Geology and Soils

The screening report should describe surface geology and soils in the study area, and should identify any impacts the project may have, including potential effects from contaminated sites and spills. Where the project will involve the confinement, removal or remediation of contaminated soils or sediments, information on the containment, disposal or treatment method – including the potential environmental and any related human health effects associated with the method – should be provided. When drawing conclusions about the significance of impacts, reference should be made to the appropriate guidelines.

Vegetation and Wetlands

It is noted that residential development has occur in areas identified as meadows and agricultural lands in the provincial EA. Indications of the value of current vegetation communities within the study area should be updated to reflect current conditions and policies.

The characteristics of the Mississauga BRT Corridor have changed through the development of additional residential neighbourhoods since the completion of the Provincial EA process and may have altered the availability of identified vegetation buffers. The screening report should provide a description of vegetation communities and wetlands in the study area (within the zone of influence of the project). The habitats within the zone of influence of the project should be described and mapped in relation to the project works and activities.

The environmental effects analysis should identify any impacts the project may have, including the removal of vegetation (particularly in sensitive habitats), potential adverse effects on biodiversity (such as the potential for the establishment of exotic invasive plant species and possible effects on genetic and species diversity); disturbance effects (such as edge effects), and (where relevant) the potential effects of vegetation control, road salt and other operational considerations. Any site/ecological restoration efforts should also be described.

The screening report should describe and assess potential impacts on wetlands and their ecological functions, taking into consideration the *Federal Policy on Wetlands*

Conservation, which applies to the delivery of all federal programs, services and expenditures. Of relevance to this project is the commitment under the Policy that all federal departments have made to the goal of ‘no net loss’ of wetland functions of all natural or created wetlands on federal lands and waters or in areas where wetland loss has reached critical levels (such as southern Ontario). Wetland functions include hydrological, biogeochemical, habitat and ecological functions, as well as social/cultural/commercial values, aesthetic/recreational values, and education and public awareness values.

Wherever there is the potential for project activities to encroach on or disturb wetland features, the CEEA Screening should include background information on these features, including a full wetland evaluation, and document the functions (i.e. water quality, habitat, hydrological) that they are performing in the ecosystem. Adverse impacts on the wetland features and their functions should be assessed and a mitigation strategy should then be developed based on a hierarchical sequence of mitigation alternatives: avoidance (the elimination of adverse effects by siting or project design, i.e. avoiding physical encroachment or disturbance during construction); minimization (reduction or control of adverse effects through project modification or implementation of mitigation under special conditions, i.e. sediment and erosion control measures); and compensation (replacement of unavoidably and acceptably lost wetland functions through enhancement or restoration of existing wetlands or creation of new wetlands). Any monitoring and maintenance requirements should also be documented. It should be noted that compensation cannot be used to reduce the assessment of “significance” of adverse effects, and should only be used as a last resort in restricted situations because restoration, enhancement and creation of new wetlands do not fully recover functional losses.

No substantial wetland areas have been identified in the project area. However, if there is potential for project activities to encroach on or disturb wetland features, background information on these features should be provided as early as possible, and further guidance should be obtained from the federal authorities on how to address wetland issues.¹

Wildlife, Migratory Birds and their Habitat

In conjunction with the sections on vegetation and wetlands, the screening report should provide a description of wildlife that are present in the study area at any time during their life cycle, and should identify measures to mitigate any impacts the project may have on wildlife communities and habitats used for breeding, migrating/staging, and over-wintering. Attention should also be paid to impacts on wildlife movement, including

¹ The Government of Canada publications “The Federal Policy On Wetland Conservation” (<http://www.cws-scf.ec.gc.ca/publications/abstractTemplate.cfm?lang=e&id=1023>) and “The Federal Policy on Wetland Conservation Implementation Guide for Federal Land Managers” (<http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1027>) provide additional information on the Policy and implementation guidance. Mitigation approaches are described in the publication: “Wetland mitigation in Canada: a framework for application” (<http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1026>).

mortality due to collisions with vehicles or impairment to the functions of movement corridors (such as valleylands).

The proponent should consider potential impacts of the project on migratory birds that might be breeding within the work area. The “incidental take” of migratory birds and the disturbance, destruction or taking of the nest of a migratory bird are prohibited under section 6 of the *Migratory Bird Regulations*. “Incidental take” is the killing or harming of migratory birds due to actions, such as economic development, which are not primarily focused on taking migratory birds. Adverse environmental effects on migratory birds could occur through direct mortality (destruction of individuals or their nests), disturbance, or through habitat loss or impairment. These impacts could potentially occur during site access, site preparation (including vegetation clearing) and equipment staging, materials stockpiling, or construction. Since migratory birds could also nest on bridge structures, nests and nestlings may also be destroyed during construction or future maintenance works involving bridges.

As no permit can be issued for the incidental take of migratory birds or their nests as a result of the proposed activities, the report should describe measures to avoid significant adverse effects on migratory birds, which may include timing of works such as vegetation removal, site access, staging or stockpiling, or maintenance activities (such as roadside mowing or maintenance works on bridges that support migratory bird nests) to avoid sensitive breeding periods.

Species at Risk

In conjunction with the section on vegetation and wildlife, the screening report should consider adverse effects on species of local, regional, provincial or federal concern, including wildlife species listed under the federal *Species at Risk Act* (SARA).

The *Species at Risk Act* (SARA) has resulted in a consequential amendment to CEAA that amends the definition of “environmental effect” to clarify that all federal EAs must always consider adverse effects on listed wildlife species, and the critical habitat or residences of individuals of that species. In addition, section 79(2) of SARA requires that when a federal EA is carried out on a project that may affect a listed species or its critical habitat, adverse environmental effects must be identified, mitigation measures must be taken to avoid or lessen adverse effects, and environmental effects monitoring must be conducted. This requirement applies regardless of whether or not the project is on federal land and if the species is federally regulated. To assist our review of the impacts of this project, federal lands at the project site should be identified. Furthermore, if any listed wildlife species, its critical habitat or the residences of individuals of that species may be adversely impacted by the project, the Responsible Authorities for the CEAA assessment must notify the competent Minister responsible for the listed species².

² The species currently listed under SARA and additional information, including habitat requirements, can be found at the following web sites:

http://www.sararegistry.gc.ca/species/default_e.cfm

The SARA is intended to provide protection for individuals of wildlife species at risk listed under Schedule 1 of the Act, their residences (dwelling places, such as a den or nest or other similar area that is occupied or habitually occupied by one or more individual during part or all of its life cycle) and critical habitat (that part of areas used or formerly used by the species to carry out their life processes that is deemed essential for survival or recovery).

All relevant existing background information should be collected to determine whether species of concern are known or expected to use the site or adjacent lands if they are within the zone of influence of the project. It would be useful to consult the Natural Heritage Information Centre database maintained by the Ontario Ministry of Natural Resources in Peterborough (<http://nhic.mnr.gov.on.ca/MNR/nhic/data.cfm>) to determine if there are any known, reported occurrences in the study area. Environment Canada's species at risk search tool (<http://www.speciesatrisk.gc.ca>) will also assist in determining whether the ranges of any additional SARA Schedule 1 listed species at risk overlap with the site.³ Should any occurrences or ranges of species at risk overlap with the study area, information on the habitat requirements of the species should be consulted and compared to habitat descriptions for the study area.

If there is potential for additional species at risk to occur at the project site (i.e. previous known occurrence, species range overlap and/or known habitat preference exists), information on the habitat preference of the species should be compared with information on the habitats at the project site to determine if the area could support that species. A qualified biologist should then conduct a thorough biological inventory of all areas of natural habitat that may be affected by the project and have the potential to support species at risk. A strategy should then be developed to protect any identified species at risk, with a primary focus on avoidance. The methods to be used to conduct the biological inventory as well as any measures to protect and identify species at risk should be provided for review and further guidance.⁴

In addition to the resources above that can be consulted regarding the possible locations of SAR, Environment Canada has also produced a guide that can be used as a general reference for dealing with SAR in EA. The "Environmental Assessment Best Practice

http://www.speciesatrisk.gc.ca/map/default_e.cfm
<http://www.on.ec.gc.ca/wildlife/sar/sar-e.html>

³ We caution that distribution data contained in these databases do not represent an exhaustive and comprehensive inventory of a species' current distribution. Only field inventories can determine with reasonable certainty the presence of species at risk within an area when precise knowledge of the presence / absence of species at risk is required for environmental assessment or for legal purposes (e.g. compliance with the *Species at Risk Act*).

⁴ The Environment Canada Canadian Wildlife Service (CWS) has also produced a guide that can be used as a general reference for dealing with SAR in EA. The "Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada" (February 2004) is available via the Internet on the CWS website at <http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1059>.

Guide for Wildlife at Risk in Canada” (February 2004) is available via the Internet on the Environment Canada website at <http://www.cws-scf.ec.gc.ca/publications/AbstractTemplate.cfm?lang=e&id=1059>. The aforementioned guide is primarily targeted to project proponents and those individuals who are preparing EAs. It outlines the general responsibilities of proponents and EA practitioners for considering wildlife at risk in an EA and promotes more thorough, efficient and consistent gathering and assessment of information regarding wildlife at risk.

Effects of the Environment on the Project

The screening report should assess the potential effects of the environment on the project, such as the impacts of extreme weather conditions on the project. This could include additional erosion or storm water management issues associated with heavy rain events, or other effects associated with extreme ice or snow conditions. The emphasis in this section should be on environmental conditions that are reasonably plausible, but should not be limited to events that occur on a regular basis.

Cumulative Effects

In order to consider the potential cumulative environmental effects of the project, the environmental assessment should identify other projects and activities that have been or will be carried out in the study area, including future projects that are reasonably foreseeable. At minimum, this list should include other projects that GO Transit and the City of Mississauga have undertaken or plan to undertake in the vicinity of the project. The CEAA Screening should also attempt to identify other reasonably foreseeable initiatives in the project area, such as projects or activities proposed by land developers, local municipalities, or provincial ministries (such as the Ministry of Transportation). The emphasis in this section should be on “reasonably foreseeable” activities, e.g. projects that have already been approved, or that are currently advancing through the regulatory approvals process. Additional guidance on identifying other projects and activities for the cumulative effects assessment may be provided as the assessment proceeds.

The cumulative effects assessment should summarize the residual environmental effects that are expected from the project, after mitigation measures have been taken into account, for both the construction and operation phases. For projects such as this one, this often includes (but is not necessarily limited to) the following environmental components: air quality, noise emissions, water quality and vegetation. For each of the relevant environmental components, the cumulative effects analysis should indicate whether and how each of the “other projects and activities” could have environmental effects that overlap in time and space with the environmental effects of the Mississauga BRT project to produce a cumulative effect.

In conducting the analysis, consideration should be given the length of time over which the environmental effects of this project will occur, not just the period of time during which the project will be constructed.

Accidents and Malfunctions

The screening report should identify any accidents and malfunctions that may occur in connection with the project. This should include the assessment of potential effects from accidental spills (e.g. fuels, oils, hydraulic fluids), as well as other accidents and malfunctions that could be expected to occur, such as power failures, pump failures, signal malfunctions and track failures. The emphasis in this section should be on accidents and malfunctions that are reasonably plausible.

Mitigation Measures

The screening report should clearly identify measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project, including cumulative effects. Clear commitments to implement these measures should be indicated with a description of who will be responsible for the implementation. The preparation of a project specific Environmental Plan should also be described. This should include erosion and sediment control measures that may be required to control drainage that may be discharged into watercourses in the project area, and associated storm water management plans, sound barriers, restrictions on vegetation clearing, site restoration plans and any other measures to mitigate the project's environmental and related socio-economic and human health impacts.

Evaluating Significance

To determine whether the project is likely to cause significant adverse environmental effects, a significance framework should be developed and applied. The framework should include, but not necessarily be limited to, the following considerations:

- magnitude;
- geographic extent;
- duration and frequency;
- irreversibility; and
- ecological context

The criteria should be defined, using quantitative measures wherever possible. The conclusions on significance must be clearly supported by, and traceable from the description of the existing environment, the description of project activities, the potential interactions (environmental effects) and the mitigation measures. Note that the federal Responsible Authorities will make the final determination of significance.

EA Screening Report

The environmental assessment screening report should also include the following information:

- **Description of project activities:** A list of activities and their locations, scheduling details, and estimates of their magnitude or scale (quantified, if possible);
- **Description of the environment:** Identification of the environmental components in the study area, their interrelationship, and documentation of their sensitivity to disturbance;
- **Environmental effects:** A summary of the effects, including cumulative environmental effects and the effects of malfunctions or accidents, of project activities on those components of the environment considered at risk;
- **Proposed mitigation measures:** A list and description of any mitigation measures, referenced to the environmental effects they are designed to eliminate or reduce, that are required to prevent or reduce significant adverse environmental effects;
- **Determination of significance:** A statement on whether the residual adverse environmental effects, after mitigation measures are implemented, are significant; the determination of significance should include the following criteria: magnitude, geographic extent, duration, frequency, permanence, and ecological context.
- **Monitoring and Follow-up requirements:** A statement on monitoring activities that are necessary to ensure that proposed mitigation is implemented and functioning as expected, and actions necessary to maintain the effectiveness of mitigation as long as required to provide the required level of environmental protection. Also, a statement indicating whether a follow-up program consistent with s. 38(1) of CEAA is required, including the rationale for this decision.
- **Screening conclusion:** A statement and rationale for the screening conclusion;
- **Organizational contact:** Name and telephone number of contact person.
- **Expert department consultation:** A record of consultations with expert departments and other jurisdictions;
- **Public consultation:** a description of public consultation during the screening (and/or the concurrent provincial EA process), including a summary of how public concerns were addressed;
- **Supporting information:** a summary and interpretation of technical and environmental studies, maps, or other information used in making the screening decision.