

7.0 Accidents and Malfunctions, and Effects of the Environment on the Project

7.1 Accidents and Malfunctions

This section considers reasonably plausible accidents and malfunctions that could be expected to occur and potential effects. Accidents considered include accidental spills (e.g. fuels, oils, hydraulic fluids).

7.1.1 *Equipment/machinery leaks or spills or explosions*

- Description of Effect:
 - Contamination of soils, air or down gradient creeks (Shirley's Brook watershed).

- Description of Recommended Mitigation:
 - Ensure that risks are minimized by properly and safely storing, and working with chemicals;
 - Develop a spill prevention and contingency plan (under the *Environmental Protection Act* (EPA), R.S.O. 1990, in accordance with Ontario Regulation 224/07);
 - Ensure that a hydrocarbon response kit would be on site at all times during the work;
 - If leaks/spills occur, immediately contain and clean up spills in accordance with provincial regulatory requirements and construction emergency plans;
 - Vehicle fuelling operations shall be carried out by persons trained as per the requirements in the *Liquid Fuels Handling Code* (TSSA, O. Reg 219/01 s. 6); and
 - Depending on the type/extent and or nature of spill, the following should be contacted:
 - MOE Spills Action Centre at 1-800-268-6060 ;
 - MOE Pollution 24 hour public hotline at: 1-866-MOE-TIPS (1-866-663-8477); and
 - Report emergencies by calling 911.

- Likelihood of Residual Effect:
 - Very Low.

- Significance of Residual Effect:
 - Insignificant due to small magnitude and limited geographical extent, duration and frequency. No residual effects are expected as personnel would be trained in handling equipment/materials and would have ample construction experience. No residual permanent adverse effect anticipated.

7.2 Effects of the Environment on the Project

According to CEAA, any project undergoing a federal EA must determine the effects of the environment on the project.

This section assesses the potential effects of the environment on the project, such as the impacts of extreme weather conditions. This includes 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 is on environmental conditions that are reasonably plausible, but is not be limited to events that occur on a regular basis

- Description of Effect:
 - Flooding and wet weather could result in project delays or the release of deleterious substances into downgradient waterways (Shirley's Brook watershed). Earthquakes/tremors, ice damage and erosion may impact the use of the roadway.

- Description of Recommended Mitigation:
 - The roadway would be designed in accordance with appropriate specifications to withstand specific levels of flooding, earthquake/tremor, ice damage and erosion.

- Regular maintenance exercises must be undertaken in accordance with standard regulations and protocols; and
- The work area shall be stabilized against the impacts of high flow and wind events at the end of each workday. Work in the floodplain shall be suspended and the work area stabilized when there is a high probability of a rainfall or storm event.
- Likelihood of Residual Effect:
 - Very Low.
 - Significance of Residual Effect:
 - Insignificant as flooding and earthquakes/tremors are very rare in this area. The roadway would be designed to withstand severe ice damaged and erosion. Regular and thorough monitoring and maintenance would be undertaken in accordance with standard provincial regulatory procedures.