

Table 2.1 – 2.6: Potential Project / Valued Ecosystem Interactions and Mitigation Measures (S.2(1))

Table 2.1 Valued Ecosystem Component – Soil (Surface and Subsurface) Quality				
Potential Effect: Erosion and contamination of soils.				
Potential Interaction	Mitigation			
Disturbance to soil from heavy equipment use.	<ul style="list-style-type: none">· Work must be scheduled to avoid periods of heavy precipitation. Erosion control structures (temporary matting, geotextile filter fabric) are to be used, as appropriate, to prevent erosion and release of sediments and/or sediment laden water during the construction phase. These structures are to be left in place until vegetation is re-established and/or all exposed soils are stabilized.· The exposed soil area must be minimized by limiting the area that is exposed at one time and by limiting the time that any one area is exposed. All stockpiled soil must be covered and/or dyked to prevent erosion and release of sediment laden water. Wherever possible, exposed soil is to be replanted or sodded to ensure soil stabilization.· Any hazardous material as well as construction/demolition debris must be disposed of in a provincially approved manner.· All construction/demolition wastes must be recycled where possible or otherwise disposed of in accordance with all applicable regulations.· Contaminated/hazardous material must be stored for the shortest time possible, covered with a liner and be disposed of at an approved facility as soon as available.· Machinery must be checked for leakage of lubricants or fuel and must be in good working order. Refueling must be done at least 30 m from any water body and on an impermeable surface. Basic petroleum spill clean-up equipment must be on-site. All spills or leaks must be promptly contained, cleaned up and reported to the 24-hour environmental emergencies reporting system (1-800-565-1633).· Fuel levels in equipment and / or on-site fuel storage tanks must be inspected on a daily basis to ensure there is no leakage to the surrounding environment.- Onsite crews must have emergency spill clean-up equipment, adequate for the activity involved, on-site. Spill equipment will include, as a minimum, at least one 250L (i.e., 55 gallon) overpak spill kit containing items to prevent a spill from spreading; absorbent booms, pillows, and mats; rubber gloves; and plastic disposal bags. All spills or leaks must be promptly contained, cleaned up, and reported to the 24-Hour Environmental Emergencies Report System (1-800-565-1633).			
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:		Insignificant		
Monitoring:		None required		
Comments: Construction activities could result in the mobilization of onsite soils, especially during precipitation events. Such runoff events are likely to be of short duration and confined to the project site. The implementation of effective mitigation measures can reduce such effects to insignificant levels.				

Table 2.2 Valued Ecosystem Component – Groundwater Quality/Quantity				
Potential Effect: Erosion and contamination of soils.				
Potential Interaction	Mitigation			
Contamination of groundwater due to hazardous material spill.	<ul style="list-style-type: none">· Any hazardous material as well as construction/demolition debris must be disposed of in a provincially approved manner.· All construction/demolition wastes must be recycled where possible or otherwise disposed of in accordance with all applicable regulations.· Contaminated/hazardous material must be stored for the shortest time possible, covered with a liner and be disposed of at an approved facility as soon as available.· Machinery must be checked for leakage of lubricants or fuel and must be in good working order. Refueling must be done at least 30 m from any water body and on an impermeable surface. Basic petroleum spill clean-up equipment must be on-site. All spills or leaks must be promptly contained, cleaned up and reported to the 24-hour environmental emergencies reporting system (1-800-565-1633).· Fuel levels in equipment and / or on-site fuel storage tanks must be inspected on a daily basis to ensure there is no leakage to the surrounding environment.			
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:		Insignificant		
Monitoring:		None required		
Comments: The potential exists for the contamination of local groundwater reserves from hydrocarbons due to upsets during refueling of construction equipment. While unlikely, such effects can be avoided through the application of effective mitigation measures.				

Table 2.3 Valued Ecosystem Component – Birds / Bird Habitat (Migratory Birds Convention Act)				
Potential Effect: Disturbance of Rare/Endangered/Species at Risk (SARA)				
Potential Interaction	Mitigation			
<p>Potential for disturbance to birds/nesting from equipment movement and operation.</p> <p>All project activities are likely to result in increased noise and general disturbance at the project site.</p> <p>Food scraps remaining at the site could enhance populations of predators in the area.</p>	<ul style="list-style-type: none">· Proponents and Contractors should ensure that food scraps and garbage are not left at the work site.· It is recommended that vegetation clearing not take place during the bird breeding season until fledglings have left parental territories.· Avoid disturbances to all birds and wildlife in project area.			
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:		Insignificant		
Monitoring:		None required		
Comments: Increased noise and activity levels will be temporary and potential effects can most likely be minimized through implementation of the above mentioned best management practices.				

Table 2.4 Valued Ecosystem Component – Terrestrial Species (<i>Species at Risk Act</i>)				
Potential Effect: Disturbance of Rare/Endangered/Species at Risk (SARA)				
Potential Interaction	Mitigation			
<p>There will be an increase in noise levels and traffic that could cause disruption to rare/endangered species during construction.</p> <p>Food scraps remaining at the construction site could enhance populations of predators in the area</p> <p>Potential for suspended sediment to affect rare/endangered species.</p>	<ul style="list-style-type: none">· Proponents and Contractors should ensure that food scraps and garbage are not left at the work site.· Avoid disturbances to all birds and wildlife in project area.			
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:		Insignificant		
Monitoring:		None required		
Comments: Increased noise and activity levels will be temporary and potential effects can most likely be minimized through implementation of the above mentioned best management practices.				

Table 2.5 Valued Ecosystem Component – Air Quality / Noise				
Potential Effect: Disturbance of Rare/Endangered/Species at Risk (SARA)				
Potential Interaction	Mitigation			
Use of heavy machinery may cause short-term elevated noise levels and emissions at the site, along the transportation route, and may affect area residents and businesses. Construction activities may cause increase in dust material. Operation of the site may cause short-term elevated noise levels and dust. Short-term exposure to contaminated air quality as a result of hazardous materials spills or equipment malfunctions.	· All construction equipment must be fitted with standard and well- maintained noise suppression devices. Construction activities must respect appropriate time restriction and use smaller, less disturbing equipment where possible. · Appropriate dust suppression methods are to be employed when required. The construction manager shall determine locations where water is to be applied, the amount of water to be applied, and the times at which it shall be applied. Waste oil is not to be used for dust control under any circumstances.			
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:	Insignificant			
Monitoring:	None required			
Comments: Construction related activities could result in an increase in noise and dust on the project site and surrounding area. Dusting conditions related to machinery use will be of short duration and confined to the project site. While negative in nature, such effects are generally avoidable with appropriate mitigation measures. Similarly, any increase in noise levels related to the operation of construction equipment will be of short duration and confined to the project area. The magnitude of such noise effects will be small relative to background levels given volume of traffic in the area, taking appropriate mitigative measures into account.				

Table 2.6 Valued Ecosystem Component – Health/Safety				
Potential Effect: Human exposure to hazards.				
Potential Interaction		Mitigation		
Persons present on or surrounding project site may be exposed to hazards. Operation of the site may cause exposure to hazardous materials.		· Proper safety procedures must be followed during the duration of the project as per applicable municipal, provincial, and federal regulations. · Employees will be trained in health and safety protocols (i.e., safe work practices, emergency response). · Workers who may come in contact with hazards must be provided with and use appropriate personal protective equipment. · Site access must be restricted to authorized workers only.		
Magnitude	Reversibility	Geographic Extent	Duration	Frequency
Small	Reversible	Immediate	Short-term	Once
Residual Effects:		Insignificant		
Monitoring:		None required		
Comments: While workers may be exposed to hazards, the exposure can be limited through the use of appropriate personal protective equipment and restricting site access to authorized workers only. In addition, workers must follow the Provincial <i>Occupational Health and Safety Act</i> and any other appropriate legislation, regulations, guidelines, or best-management practices.				