

VALUED ENVIRONMENTAL COMPONENT	POTENTIAL ENVIRONMENTAL EFFECTS	PROPOSED MITIGATION MEASURES	NET EFFECTS
Physical Environment			
Geotechnical	Settlement Issues	<ul style="list-style-type: none"> Remove organic soils and replace with structural fill Granular base of 600 mm thickness (B&A) and a 90 mm thickness of asphalt for heavy traffic areas. Complete percolation tests if installing septic system 	Potentially some dewatering issues. No major concerns for development of the site.
Ambient Noise/Acoustics	By-laws require noise mitigation for nearby residences	<ul style="list-style-type: none"> Construct a 50 m long L-shaped barrier with at least 4 m height installed along the east side of the property boundary - result in the nighttime sound level lower than 55 dB at all potential receptors 	Resulting <u>exceedance</u> is considered insignificant and no additional noise control is recommended.
Surface Water/ <u>Stormwater Management and Drainage</u>	Flooding Water quality	<ul style="list-style-type: none"> Lower MTO culvert 0.5 m at its upstream invert - restrict the site's peak discharge Install additional culverts across Westbrook Road to reduce head build up on linear pond Include a <u>stormwater pond</u> of 4 ha on-site to correct off-site site drainage problems Include a liner beneath base of snow stockpile, dump pad and <u>meltwater pond</u> to protect surrounding wells Install a vegetative strip, oil/grit separator, sediment fore bay and a wet pond to improve water quality 	The proposed design indicates that the property can provide for 350,000 m ³ of capacity for snow. Discussions with the MTO will be held during Phase 2 consultation regarding the required change in invert to the culvert. No residual effects are anticipated following implementation of suggested mitigation measures.
Hydrogeology	Flooding Potential for contamination in nearby potable water wells Significant groundwater recharge	<ul style="list-style-type: none"> Line the base of the snow stockpile footprint, snow dump pad and <u>meltwater pond</u> with a <u>geomembrane</u> or <u>geosynthetic clay liner</u> Replace any groundwater recharge area and/or any drainage works that decrease the recharge potential with the equivalent volume 	Investigative work and groundwater testing show that site conditions are not conducive to being a significant recharge zone.
Terrestrial Environment			
Significant Natural Heritage Features	Disturbance/destruction to nesting habitat for species at risk.	<ul style="list-style-type: none"> Retainable Butternut will need to be protected or replaced in greater numbers following MNR instruction following receipt of registering their removal. In-water works for construction of the project should be scheduled outside of October 15 to April 15, to avoid disturbance to turtles, or fencing should be installed in the fall to prevent turtles from entering End of season activities should be scheduled and conducted to avoid disturbance to nesting or basking turtles. 	No residual effects are anticipated following implementation of suggested mitigation measures.
Terrestrial Wildlife	Disturbance	<ul style="list-style-type: none"> Installation of perimeter and silt fencing may be used to exclude wildlife from the site during construction. Contractors and site personnel during all phases of the project should be made aware of measures to avoid interactions with wildlife and provided with appropriate contact information in the event that an encounter with wildlife including species at risk does occur. 	No residual effects are anticipated following implementation of suggested mitigation measures.
Avifauna	Loss/Disturbance Contravention of Federal Acts	<ul style="list-style-type: none"> Clearing of trees and shrubs should be avoided between April 15 and July 31. If trees or shrubs must be cleared during the breeding season, a nesting survey will be conducted by a qualified biologist prior to disturbance. If migratory birds or species at risk are identified actively nesting in the Project area, additional mitigation will need to be applied in consultation with the Ministry of Natural Resources. Exterior lighting will be designed to minimize the potential to adversely affect the <u>behaviour</u> of migratory birds (e.g., shielded lighting directed downward). 	No residual effects are anticipated following implementation of suggested mitigation measures.