

Appendix B

MOE Screening Criteria Checklist

**Table B1
Screening Criteria (MOE, 2001)**

| Potential Effect | Yes | No | Additional Information | Net Effects |
|---|-----|----|---|--|
| Will the project... | | | | |
| 1.0 Surface and Groundwater | | | | |
| 1.1 Have negative effects on surface water quality, quantity or flows? | X | | <p>Potential for negative effects on surface water quality during construction (e.g., sediment releases to river during land clearing, etc.). A sediment and erosion control plan will be developed and implemented during construction. Standard construction site best management practices and mitigation measures, including site restoration will be utilized.</p> <p>Up to a maximum of 100 m³/s of flow will be diverted through the powerhouse. A minimum flow will be maintained over the North Bala Dam at all times. Flow management will occur within the constraints of the Muskoka River Water Management Plan</p> | <p>Potential for short-term sediment releases to the watercourse during the construction period without effective mitigation.</p> <p>Long-term effect on water quantity and flows over North Bala Falls and through South dam as water is diverted for power production.</p> |
| 1.2 Have negative effects on groundwater quality, quantity or movement? | X | | Some temporary groundwater pumping may be required during powerhouse excavation, with resulting minor, temporary impacts on local groundwater levels. | Minor short-term impact on localized groundwater levels. |
| 1.3 Cause significant sedimentation, soil erosion or shoreline or riverbank erosion on or off site? | X | | <p>Potential for erosion of stockpiles and disturbed areas during construction. A sediment and erosion control plan will be developed and implemented during construction to reduce the potential for adverse effects. Standard construction site best management practices and mitigation measures, including site restoration will be utilized.</p> <p>Much of the existing shoreline and riverbed around the powerhouse location is bedrock or large boulder and is naturally erosion resistant.</p> | <p>Potential for erosion and/or sedimentation. Implement construction mitigation measures as required to reduce adverse effects.</p> <p>No significant change to erosion/sedimentation potential anticipated due to operation of facilities.</p> |
| 1.4 Cause potential negative effects on surface or groundwater from accidental spills or releases into the environment? | X | | Risk present during construction. Spill prevention and contingency plans will be developed and | Short-term risk during construction. Apply |

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| <p>Will the project...</p> | | | <p>implemented for the construction period. Fuels/lubricants and any other environmentally hazardous materials used during construction. Apply mitigation to ensure they are stored away from watercourses in bermed areas or appropriate protective enclosures.</p> <p>Minor amount of on-site liquid storage and use during operations (primarily lubricants). Spill prevention and contingency plans will be developed and implemented for the operational period. Implement mitigation measures to ensure potential for accidental releases to the environment is minimized. Spill cleanup material and emergency response plan to ensure impact of any accidental releases is minimized</p> | <p>mitigation measures.</p> <p>Minimal long-term risk during operation with effective mitigation.</p> |
| <p>2.0 Land</p> | | | | |
| <p>2.1 Have negative effects on residential, commercial or institutional land uses within 500 m of the site.</p> | <p align="center">X</p> | | <p>Temporary disruption during construction due to noise, aesthetics.</p> <p>Potential for increased noise due to operation of the facility. Mitigation to include sound dampening materials in powerhouse, installation of transformer inside powerhouse to reduce noise. Noise emissions will be subject to approval from MOE.</p> <p>Some disruption of traffic flow along Highway 169, main road through town, during construction. Access from Highway 169 to two businesses will be prevented during construction. Mitigation to involve the construction of a Bailey bridge to re-route traffic and compensation to directly affected business(es).</p> | <p>Temporary noise during construction.</p> <p>Negligible noise emissions during operation.</p> <p>Delays in traffic movement along Highway 169. Reduction in access to businesses.</p> |

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| Will the project... | | | | |
| 2.2 Be inconsistent with the Provincial Policy Statement, provincial land use or resource management plans? | | X | Sites released by the Ministry of Natural Resources as part of provincial initiative to increase renewable power generation. Hydro power generation at this site is consistent with the Provincial Policy Statement, provincial land use policies and resource management plans | None. |
| 2.3 Be inconsistent with municipal land use policies, plans and zoning bylaws? | | X | Official Building Plan allows hydro development in all zones covered by Plan. | None. |
| 2.4 Use hazard lands or unstable lands subject to erosion? | | X | No such lands identified in the study area. | None. |
| 2.5 Have potential negative effects related to the remediation of contaminated land? | | X | No contaminated land identified within the study area. | None. |
| 3.0 Air and Noise | | | | |
| 3.1 Have negative effects on air quality due to emissions of nitrogen dioxide, sulphur dioxide, suspended particles, or other pollutants? | X | | Some air-borne emissions will occur during the construction process due to vehicle, heavy equipment. No operational air-borne emissions. | Minimal short-term effect. No long-term effect. |
| 3.2 Cause negative effects from the emission of greenhouse gases (CO ₂ , methane?) | | X | No greenhouse gases emitted during construction or operation. | None. |
| 3.3 Cause negative effects from the emission of dust or odour? | X | | Potential for effects from dust during the construction of site facilities. Mitigation measures such as watering of work area to be applied. No odour effects. Site restoration following construction to prevent fugitive dust emissions during the operational period. | Minimal short-term effect during construction with effective mitigation. No long-term operational effect. |
| 3.4 Cause negative effects from the emission of noise? | X | | Construction related noise will increase during the approximately 1.5-yr long construction period. No significant operational noise. | Short-term increase during construction. No significant long-term effect. |
| 4.0 Natural Environment | | | | |
| 4.1 Cause negative effects on rare, threatened or endangered species of flora or fauna or their habitat? | | X | No species listed on Schedule 1 of the federal Species at Risk Act or as Regulated under the Ontario Endangered Species Act within area affected by project. | None. |
| 4.2 Cause negative effects on protected natural areas such as ANSIs, ESAs or other significant natural areas? | | X | No significant natural areas identified in the study area. | None. |

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| Will the project... | | | | |
| 4.3 Cause negative effects on wetlands? | | X | No impact on wetlands will occur. | None. |
| 4.4 Have negative effects on wildlife habitat, populations, corridors or movement? | X | | Construction/decommissioning may disrupt normal wildlife usage of the study area due to noise, human presence. Clearing should take place outside of the primary bird-nesting season. | Short-term impacts to study area wildlife habitat and communities due to increased noise and human presence. |
| 4.5 Have negative effects on fish or their habitat, spawning, movement or environmental conditions (e.g., water temperature, turbidity, etc)? | X | | Temporary loss of habitat during construction due to cofferdamming, dewatering and water diversion. Water diversion will result in a decrease in wetted habitat in the bypass reach. Powerhouse discharge will alter river bathymetry and flow conditions in the immediate downstream area. A fish habitat mitigation plan to be developed in consultation with MNR and DFO. A long-term monitoring program implemented to ensure success of mitigation measures. | Predicted changes to fish habitat in the study area (net increase). Develop mitigation plan to ensure No Net Loss of Productive Capacity of Fish Habitat. |
| 4.6 Have negative effects on migratory birds, including effects on their habitat or staging areas? | X | | Clearing of trees may result in a minor loss of habitat for migratory birds, although no significant areas of habitat are anticipated to be affected. Schedule tree clearing outside of the main bird breeding season. | Minor long-term effect due to loss of terrestrial habitat. |
| 4.7 Have negative effects on locally important or valued ecosystems or vegetation? | | X | No such features identified. | None. |
| 5.0 Resources | | | | |
| 5.1 Result in inefficient (below 40%) use of a non-renewable resource (efficiency is defined as the ratio of output energy to input energy, where output energy includes electricity produced plus useful heat captured)? | | X | Hydroelectric generation will be an efficient use of natural resources. | None. |
| 5.2 Have negative effects on the use of Canada Lands Inventory Class 1-3, specialty crop or locally significant agricultural lands? | | X | None identified in study area. | None. |
| 5.3 Have negative effects on existing agricultural production? | | X | None identified in study area. | None. |

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| Will the project... | | | | |
| 5.4 Have negative effects on the availability of mineral, aggregate or petroleum resources? | | X | No negative effects anticipated. | None. |
| 5.5 Have negative effects on the availability of forest resources? | | X | No negative effects anticipated. | Minor long-term effect. |
| 5.6 Have negative effects on game and fishery resources, including negative effects caused by creating access to previously inaccessible areas? | X | | Potential adverse effects on walleye due to impact on spawning areas. Fish habitat mitigation plan to ensure no net adverse effects. | None. |
| 6.0 Socioeconomic | | | | |
| 6.1 Have negative effects on neighbourhood or community character? | X | | Temporary disruption to community character during construction. Long-term change to community character as flow over Bala Falls will be reduced. Landscaping to enhance post-construction appeal of the facility. Upgrades to adjacent park land to enhance visitor features. | Long-term change in community character by reduction in flow over falls and enhancement of park area by landscaping. |
| 6.2 Have negative effects on local businesses, institutions or public facilities? | X | X | There will be a positive effect on certain local businesses during construction (i.e., accommodations, gas, meals for workforce, local suppliers). Negative impact on businesses where access from Highway 169 is blocked and Purk's Place, where docking facilities will be removed from existing location. | Positive benefit. Negative impact on Purk's Place. |
| 6.3 Have negative effects on recreation, cottaging or tourism? | X | | Negative impacts on recreation during construction due to restricted access. Negative impact on tourism due to disruption in traffic. Long-term reduction in flow over Bala Falls may impact recreation in the area. | Short-term effect during construction; longer-term but lesser change during operation. |
| 6.4 Have negative effects related to increases in the demands on community services and infrastructure? | | X | No additional demand for community services is anticipated (within capacity of existing services and infrastructure). | None expected. |

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| Will the project... | | | | |
| 6.5 Have negative effects on the economic base of a municipality or community? | | X | Some positive effects anticipated due to increased employment opportunities during construction | Short-term positive effect. |
| 6.6 Have negative effects on local employment and labour supply? | | X | Potential positive impacts due to need for local contractors and a plant operator. | Positive overall effect. |
| 6.7 Have negative effects related to traffic? | X | | Short-term increase in traffic on Highway 169 during construction. No significant change during operation. | Short-term effect during construction. |
| 6.8 Cause public concerns relating to public health and safety? | X | | Short-term public safety concerns during construction/decommissioning. Construction site safety practices will be implemented to reduce the risk. Longer term impact due to facility operations. Appropriate safety signage and booms will be installed to warn of site hazards. | Short-term safety risk during construction. Longer term operational risk minimal. |
| 7.0 Heritage and Culture | | | | |
| 7.1 Have negative effects on heritage buildings, structures or sites, archaeological resources, or cultural heritage landscapes? | X | | Potential of damage to two buildings of historical importance in close proximity to the project site. Construction methods to include steps to minimize chance of damage. | Low potential for damage to historically important structures. |
| 7.2 Have negative effects on scenic or aesthetically pleasing landscapes or views? | X | | Diversion of water through the facility will change the view of the falls, potentially affecting the scenic quality of the area. Scenic flow will be passed during tourism season and all flows in excess of rated turbine flow will be passed over the falls. | Long-term effect. |
| 8.0 Aboriginal | | | | |
| 8.1 Cause negative effects on First Nations or other Aboriginal communities? | | X | No negative effects anticipated. | None. |
| 9.0 Other | | | | |
| 9.1 Result in the creation of waste materials requiring disposal? | X | | Waste materials generated during construction and eventual decommissioning of the facility will require disposal at an approved facility. | Minimal short-term effect. |
| 9.2 Cause any other negative environmental effects not covered by the criteria outlined above? | | X | None identified. | |