

## 12. Conclusions and Recommendations

### 12.1 Summary of Positive and Negative Effects

Operation of the facilities will provide a reliable supply of low impact green energy to the Province of Ontario. Sale of the energy to the Province will provide a reliable income stream to CLFN and Northland. The income provided to CLFN will result in significant long term economic benefits for the community. The plan is that in Year 53, following commencement of operations, ownership and control of the facilities will be completely transferred to CLFN so they will receive all of the economic benefits of the Project. This will be accomplished by an automatic reinvestment of a portion of Constance Lake's income from the Project to purchase further shares in the Project. In addition, the construction period will result in significant positive economic effects for CLFN, contractors, equipment suppliers and local businesses providing services to the construction workforce. Training opportunities for CLFN may assist the local workforce in finding employment upon cessation of construction in other industries. The economic benefits to CLFN as a result of this Project are significant.

The Project is anticipated to result in increased angling opportunities for expanded populations of Walleye and Northern Pike in the Project head ponds, which will benefit CLFN anglers and general members of the public.

The Project will result in minor net negative effects to some natural environment and socio-economic environmental components. Short-term, low magnitude negative effects will occur during the construction period and some long-term, low magnitude effects will occur during the operations period for the proposed facilities. Long-term changes include a likely reduction in Brook Trout populations from the Project Area (although populations downstream from Site 6 - Wapoose will not be affected by the Project) and a long-term change in the form of the Kabinakagami River through the Project Area, including long term aesthetics due to loss of rapids and a falls, particularly at Site 3 - Neeskah and Site 4 - Peeshoo.

CLFN and Northland have opted to operate the small Project head ponds in a strict run-of-river mode of operation, foregoing the economic benefits that could be had by operating in a modified peaking mode, in order to minimize long term changes due to water level and flow management. Northland has also opted for close-coupled facilities, to prevent the requirement for a bypass reach and associated dewatering of the river bed in order to address significant concerns noted by CLFN. Fish communities will change within the Project Area (i.e., possible reduction in Brook Trout angling opportunities), but no adverse effects on downstream fish communities, including Lake Sturgeon are anticipated to occur. There are expected to be healthy fish populations of Walleye, Northern Pike and White Sucker within the four project head ponds.

There are already measurable levels of mercury in the fish in the Kabinakagami River. Increases in mercury levels in fish in the head ponds and downstream reach could result in increased recommended consumption restrictions; however, this effect is anticipated to diminish over time, with existing mercury levels being restored. Consumption restrictions, and associated

distribution of this information within the CLFN community and to the general public, will ensure that no long-term effect on human health due to fish consumption occurs

This ER has recommended technically and economically feasible mitigation measures to prevent and minimize adverse environmental effects to the extent possible. Overall, the adverse environmental effects that are anticipated to occur are not significant.

The primary positive and negative net environmental effects, taking mitigation into account that will result from construction and operation of the Kabinakagami River Project are summarized below.

#### **Positive Net Effects – Construction Period**

- Generation of construction jobs and financial benefits to CLFN, contractors, equipment suppliers and local businesses during the construction and operations period to enhance local economy.

#### **Positive Net Effects – Operation Period**

- Reliable income stream for CLFN and Northland and significant long-term benefits for CLFN immediately upon operation of the Project, with further steadily increasing significant benefits to CLFN especially after they achieve complete ownership and control of the facilities, which is projected to occur in Year 53.
- Reliable supply of green energy for the Province of Ontario.
- Increase in angling opportunities within the four Project head ponds.
- Potential increases in Walleye and Northern pike populations within the proposed facility head ponds.

#### **Negative Net Effects – Construction Period**

- Potential for low magnitude, short-term negative effects to soils and sediments, surface water quality, air quality, aquatic biota and habitat, terrestrial wildlife and habitat during construction period.
- Potential for short-term negative effects due to aesthetics, traffic disruption, alteration to recreational uses and alteration to resource uses (e.g., forestry and mining) during construction.

#### **Negative Net Effects – Operations Period**

- Likely reduction in of Brook Trout populations and angling in proposed head pond reaches upstream from Site 6 – Wapoose.
- Loss of Lake Sturgeon (captured and transferred downstream during construction) from reach upstream of Site 6 - Wapoose.
- Potential for mortality of small fish to occur due to passage through turbines.
- Overall loss of terrestrial wildlife habitat due to clearing for project area.

- Altered long-term aesthetics due to facilities and loss of rapids at Site 3 - Neeskah and Site 4 – Peeshoo.
- Potential for increases in fish mercury concentrations and potential for consumption restrictions to be in place until the existing regional baseline conditions are restored.

## 12.2 Conclusion

The conclusion of this ER is that the Project will not cause significant negative environmental effects after mitigation measures are applied.

## 12.3 Mitigation, Monitoring and Permitting Recommendations

The mitigation recommendations contained in this document with respect to the construction period, as well as any contained in the Project's environmental permits and approvals, will become part of the Contractor's obligations during the construction of this Project as applicable. The Contractor will also be required to prepare a sediment and erosion control plan prior to implementation of construction. The sediment and erosion control plan will be forwarded to regulatory agencies for review and approval prior to implementation.

CLFN and Northland should also assign a permitting team to the Project whose role will be to ensure that all necessary permits for the project are in place prior to construction.

The mitigation recommendations contained in this document with respect to the operations period, as well as any contained in the Project's environmental permits and approvals, will be the responsibility of CLFN and Northland.

CLFN and Northland will appoint an environmental inspector at the project site to ensure implementation of the construction monitoring program. Northland and its environmental consultant will be responsible for the post-construction environmental monitoring program.

## 12.4 Provincial Statement of Completion

Provided that no Part II order request is received to elevate the project to a more detailed environmental assessment under the *Ontario Environmental Assessment Act*, or the request is resolved without elevation of the project, a Statement of Completion will be prepared and filed with MOE and the project may proceed subject to receiving all necessary permits and approvals.