17.0 SUMMARY AND CONCLUSIONS

This Environmental Impact Assessment (EIA) registration document and EIA Report describes the planned development of, and provided an environmental effects assessment for, the Fundy Isles Submarine Cables Replacement Project (the "Project") proposed by New Brunswick Power Corporation (NB Power). The Project involves the installation and operation of two new submarine electrical transmission cables and eventual decommissioning of the existing submarine cables. The new cables include: one from Deer Island to Campobello Island, and one from Campobello Island to Grand Manan Island, to provide continued electrical service from mainland New Brunswick to these three islands, otherwise known as the Fundy Isles. The existing cables that currently supply electrical power to these islands (Line 0045) are nearing the end of their service life and need to be replaced. The Project includes two segments of 69 kilovolt (kV) alternating current (AC) submarine cables, one from Deer Island to Campobello, and one from Campobello to Grand Manan, and the modification of four land-based overhead-to-underground cable riser stations.

This document is being submitted to the New Brunswick Department of Environment and Local Government (NBDELG) as part of the EIA process under the New Brunswick *Environmental Impact Assessment Regulation 87-83* of the *Clean Environment Act*. A federal environmental assessment (EA) under the *Canadian Environmental Assessment Act, 2012* (*CEAA 2012*) is not required for the Project.

There is a need to replace the existing Line 0045 cables. The new cable connections would supplement the existing cables, which would continue to operate on standby with the existing cables until eventual decommissioning and abandonment. The new submarine cables would be owned, operated, and maintained by NB Power. The Project would connect to electrical transmission infrastructure on mainland New Brunswick via the existing electrical transmission between Deer Island and the mainland.

The main elements of the Project include:

- four landfall sites (where the submarine cable is brought ashore);
- a 50 megawatt (MW), 69 kV submarine cable from Deer Island to Campobello Island, approximately 3.4 km in length;
- a 50 MW, 69 kV submarine cable from Campobello Island to Grand Manan Island, approximately 14.5 km in length;
- modifications (installation of new riser structures and associated infrastructure) to existing termination sites at Chocolate Cove, Wilsons Beach, Little Whale Cove, and Long Eddy Point;
- decommissioning of the existing cables at some time following the successful completion of the proposed installation of the new subsea cables; and
- decommissioning of the proposed new subsea cables following the useful service life of the submarine cables.

In accordance with the requirements the New Brunswick *Environmental Impact Assessment Regulation–Clean Environment Act,* this EIA Registration and EIA Report provides Project-related information available at the early stage of its conceptual development, and has assessed the environmental effects of the Project. The key elements of this report are as follows:

- A Project Description of the proposed elements of the Fundy Isles Submarine Cables Replacement Project, including a discussion of how the Project would be constructed and operated for the duration of its service life as well as consideration of alternatives to the Project. Project-related aspects including emissions and wastes and employment and expenditure were also described. Project-planning and management strategies to minimize the environmental footprint of the Project were also introduced.
- A high-level summary of the environmental setting for the Project was provided to introduce general physical, biological, and socioeconomic conditions applicable in the general area of the Project.
- The scope of the EIA, including the scope of the Project, factors to be considered, and scope of those factors were described. The methods that were to be used to conduct the environmental effects assessment of the Project were discussed. The means by which the public, stakeholders, and First Nations were engaged as part of the Project, were described.
- An assessment of potential environmental effects of the Project on each valued component (VC) of relevance and importance to this EIA was conducted. Nine VCs were identified as relevant and important to the EIA of the Project: atmospheric environment; terrestrial environment; marine environment; water resources; socioeconomic environment; heritage resources; commercial, recreational, and Aboriginal fisheries; and current use of land and resources for traditional purposes by Aboriginal persons. Additionally, effects of the environment on the Project as well as accidents, malfunctions, and unplanned events, were assessed. The cumulative environmental effects of the Project in combination with other projects or activities that have been or will be carried out were also assessed.
- Where applicable, follow-up or monitoring measures to verify the environmental effects predictions of this EIA or to verify the effectiveness of mitigation to avoid or minimize environmental effects were identified.

Residual environmental effects were predicted for VCs following the application of planned mitigation measures. The significance of residual environmental effects, as determined for each of the VCs, is summarized in Table 17.1 below.

Table 17.1 Summary of the Significance of Residual Environmental Effects

Valued Component (VC)	Project Phase			Accidents, Malfunctions, and Unplanned Events	Project Overall
	Construction	Operation and Maintenance	Decommissioning		
Atmospheric Environment	NS	NS	NS	NS	NS
Terrestrial Environment	NS	NS	NS	NS	NS
Marine Environment	NS	NS	NS	NS	NS
Water Resources	NS	NS	NS	NS	NS
Socioeconomic Environment	P	NS	P	NS	NS
Heritage resources	NS	NS	NS	NS	NS
Commercial, Recreational and Aboriginal Fisheries	NS	NS	NS	NS	NS
Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons	NS	NS	NS	NS	NS
Effects of the Environment on the Project	NS	NS	NS	NS	NS

Notes:
NS = Not Significant Residual Environmental Effect Predicted.
S = Significant Residual Environmental Effect Predicted.
L = Residual Environmental Effect is Likely to Occur.
U = Residual Environmental Effect is Unlikely to Occur.
P = Positive Residual Environmental Effect Predicted.

The EIA concluded that there would be no significant adverse residual environmental effects from the Fundy Isles Submarine Cables Replacement Project during all phases assessed and in consideration of normal activities of the Project as planned. Positive environmental effects were predicted for the socioeconomic environment as they relate to employment, incomes, and government revenues during both the construction and decommissioning phases. Effects of the environment on the Project were predicted to be not significant due to the engineering design of Project components that incorporates factors of safety and other mitigation to minimize the likelihood of a significant adverse effect of the environment on the Project. The potential residual environmental effects of accidents, malfunctions, and unplanned events were also found to be not significant.

Cumulative environmental effects of the Project in combination with other past, present, or reasonably foreseeable future projects or activities were also assessed. Project management and mitigation measures would be applied as part of the Project such that the residual environmental effects of the Project in combination with other projects or activities that have been or will be carried out are not significant.

A limited number of follow-up or monitoring initiatives have been developed to verify the predictions of this EIA Report or to verify the effectiveness of mitigation.

Overall, based on the results of this EIA, it is concluded that, with planned mitigation and the implementation of best practices to avoid or minimize adverse environmental effects, the residual environmental effects of the Project, including cumulative environmental effects, the effects of the environment on the Project, and accidents, malfunctions and unplanned events during all phases are rated not significant.