

Appendix H

Technical Report: 2020 Nocturnal Owl Survey



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NEW BRUNSWICK POWER CORPORATION
Technical Report: 2020 Nocturnal Owl
Survey

Milltown Generating Station Decommissioning Project
Milltown, New Brunswick



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1.0 Introduction

This document is a supplemental technical report detailing the results of a nocturnal owl survey conducted in support of the environmental impact assessment (EIA) registration document and other environmental permitting applications for the Milltown Generation Station Decommissioning Project (the Project) proposed by the New Brunswick Power Corporation (NB Power) in the neighbourhood of Milltown, in the Town of St. Stephen, Charlotte County, New Brunswick, Canada.

Owls are considered an important feature and valued component (VC) of wildlife and wildlife habitat for the environment and thus make up a key part of the assessment of the Project's potential environmental effects on the environment. In general, the environment around the St. Croix River supports terrestrial wildlife and is important to the public for the biodiversity it supports. This report provides a summary of nocturnal owl surveys conducted in support of the Project's EIA registration and environmental permit applications, and includes: i) a brief overview of the Project; ii) survey scope and methodology; and iii) a summary of the results.

Though other focused environmental surveys were completed concurrently, the focus of this report is on nocturnal owls. The remaining field surveys (i.e., turtles, bats, breeding birds, wetlands, vegetation, and fish and fish habitat) are summarized in separate technical reports that are also intended to support the EIA registration and other environmental permits.

1.1 Project Overview

This Project overview is an abbreviated summary for the purposes of this technical report. For a detailed description of the Project facilities/components, phases and activities, the reader is referred to the EIA registration document (Dillon 2020).

The Project will be carried out in the neighbourhood of Milltown, in the Town of St. Stephen, Charlotte County, New Brunswick, Canada as well as in the City of Calais, Washington County, Maine, United States of America (U.S.A.). The Milltown Station is situated on the international boundary between Canada and the United States of America. Physical infrastructure on the U.S.A. side of the international boundary will be managed separately through the applicable U.S.A./State permitting processes.

The Milltown Station is comprised of the following existing facilities: powerhouses and related equipment, dam and related structures, fish passage facilities, electrical substation, and other related facilities and infrastructure.

As currently envisioned by NB Power, decommissioning of the Milltown Station (i.e., the Project) will involve the full dismantling and removal of all equipment, buildings, and structures associated with the existing Milltown Station in both Canada and the United States (except for the on-site electrical substation which will remain in place), including a full bank-to-bank decommissioning of all structures within the St. Croix River.

2.0 Scope of Work and Methodology

The following section outlines the methodology that was undertaken to conduct desktop analysis as well as the field work associated with the nocturnal owl surveys.

2.1 Scope of Work

The New Brunswick “Guide to Environmental Impact Assessment in New Brunswick” (EIA Guide; NBDELG 2018) as well as other environmental permitting in both Canada and the U.S.A. requires that physical and natural features be described and assessed to support the assessment of environmental effects and permitting; including, where appropriate, the collection of field data during appropriate seasonal windows. This information will be used to document the existing environmental conditions in the area, confirm the findings of the desktop and literature review conducted in the EIA, and assist in the development of mitigation measures for the Project.

The nocturnal owl survey was designed specifically to detect the presence of breeding nocturnal owls in addition to other nocturnal birds possibly present in the area, with a focus on migratory birds and species at risk – i.e., those afforded protection both federally under the *Species at Risk Act* and *Migratory Birds Convention Act*, as well as provincially under the *New Brunswick Species at Risk Act*.

2.2 Methodologies

2.2.1 Study Area

The general area of the Milltown Station is largely urban/suburban, with several residential neighbourhoods, schools, and commercial facilities located nearby. The Milltown Station site consists largely of manicured lawns and parkland over non-native fill, with few natural features located on-site. The banks of the St. Croix River generally consist of mature trees, shrubs, and other immature vegetation. Generally, there exists little tree cover, and given the largely urban/suburban setting, the site is not considered to consist of valued habitat for birds or other wildlife.

The nocturnal owl study area is focused on three locations based on available habitat and expert opinion along the St. Croix River and included (refer to **Figure 1**):

- A Silent Listening Station along Mill Lane, adjacent to the access road leading to the Milltown Station;
- A Playback Calling Station located to the south of the Milltown Station, adjacent to the baseball diamond, with playback calls directed towards the upstream (south) reaches of the St. Croix River; and



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NOCTURNAL OWL SURVEYS

FIGURE 1

-  Project Location
-  Silent Listening Station
-  Playback Calling Station
-  Playback Calling Direction
-  Canada-USA Border



SCALE 1:2,162



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- A Playback Calling Station located to the north of the Milltown Station, towards the northernmost extent of property owned by NB Power northwest of the electrical substation and picnic area, with playback calls directed towards the downstream (north) reaches of the St. Croix River.

The study area was within the confines of the Canadian side only of the International Boundary Commission's official boundary line. The properties and riparian portions of the River on the U.S.A. side of the international boundary were not included within the scope of the nocturnal owl survey due to the relatively homogeneous nature of the river banks and related habitats on both sides of the international boundary line as well due to border restrictions, specifically a closed international border at the time of the surveys due to the COVID-19 pandemic. Nonetheless, the information presented herein is believed to be relevant and sufficient to inform the regulatory processes on the U.S.A. side of the international boundary. The concept of conducting field surveys on Canadian side of the international boundary only was discussed with the Maine DEP and was determined to be acceptable. Certain aspects of the Project and VCs that are located within U.S.A. jurisdiction will be assessed as applicable following U.S.A. protocols and regulatory permitting processes, and will be summarized in separate documents as required.

2.2.2 Field Survey Methods

The field survey was conducted using methods based on the "New Brunswick Nocturnal Owl Survey: Guide for Volunteers" (BSC 2007) and the "Guideline for Nocturnal Owl Monitoring in North America" (Takats et al. 2001). As mentioned above, three locations were selected for the surveys, two of which were playback calling stations and one was a silent listening station. Recordings were made at each survey location using a Song Meter (SM4) Acoustic Recorder. The survey was conducted on May 3, 2020, at night, at least 30 minutes after the sun had set.

At each playback calling station, the surveyor set up the Song Meter acoustic monitoring system and quietly recorded (both electronically and hardcopy) any owls (or other bird sounds) vocalizing naturally by species. If no sounds were heard, a sequence of owl sounds was broadcast using a moderately-powered speaker (since playback sounds are intended to be of a similar volume as a real owl) to attempt to elicit a call-back from nearby owls. Any owls (or other birds) detected were recorded according to species. At the remaining silent listening station, the surveyor only set up the acoustic monitoring station and quietly recorded any owls (or other bird sounds) vocalizing naturally by species.

3.0 Results and Discussion

The nocturnal owl survey was conducted the evening of May 3, 2020, approximately 30 minutes after sunset by Dillon's biologist, accompanied by NB Power's Indigenous field liaison. Surveys at each of the three stations mentioned above were conducted. Time spend at each station averaged 30 minutes each.

The weather conditions at the time of the survey was slightly overcast, temperatures were around 8 degrees Celsius, wind speed was between 11 to 16 kilometres an hour and wind direction was southeast. None of the playback calling station or the silent listening station resulted in any owls or other birds being detected or recorded, despite multiple efforts to elicit a response. This result may be because the available habitat in the immediate area is simply less ideal for foraging or hunting due to the industrial/urbanized nature of the Project area, especially given more suitable habitat can be found nearby both upstream and downstream. The Project area also does not represent preferred nesting habitat for nocturnal owls as it mostly lacks the larger, older-growth trees that are needed to develop cavities suitable for nesting.

4.0 Closure

This report was prepared by Dillon Consulting Limited (Dillon) on behalf of the New Brunswick Power Corporation, in support of the EIA and permitting of the Milltown Generating Station Decommissioning Project. Dillon has used the degree of care and skill ordinarily exercised under similar circumstances at the time the work was performed by reputable members of the environmental consulting profession practicing in Canada. Dillon assumes no responsibility for conditions which were beyond its scope of work. There is no warranty expressed or implied by Dillon.

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Yours truly,

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References

BSC (Bird Studies Canada). 2007. New Brunswick Nocturnal Owl Survey: Guide for Volunteers.

Dillon (Dillon Consulting Limited). 2020. Environmental Impact Assessment (EIA) Registration, Milltown Generating Station Decommissioning Project, Milltown, New Brunswick. Prepared by Dillon Consulting Limited on behalf of the New Brunswick Power Corporation, Fredericton, New Brunswick. November 2020.

Holt, D. 2001. Guidelines for Nocturnal Owl Monitoring in North America. Beaverhill Bird Observatory and Bird Studies Canada, Edmonton, Alberta. 32 pp.

NBDELG (New Brunswick Department of Environment and Local Government). 2018. A Guide to Environmental Impact Assessment in New Brunswick. Environmental Impact Assessment Branch, Fredericton, NB. Available at: <https://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/EIA-EIE/GuideEnvironmentalImpactAssessment.pdf>. Accessed: November 2020.

Takats, D. L., C. M. Francis, G. L. Holroyd, J. R. Duncan, K. M. Mazur, R. J. Cannings, W. Harris, and D. Holt. 2001. Guidelines for Nocturnal Owl Monitoring in North America. Beaverhill Bird Observatory and Bird Studies Canada, Edmonton, Alberta. 32 pp.