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### Staff Report

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| <b>Applicant:</b><br>Northwest Territories Power Corporation – Bluefish Hydro Facility |   |
| <b>Location:</b><br>Bluefish Power Generation Facility, NT                             | <b>File Number:</b><br>MV2020L4-0005                |
| <b>Date Prepared:</b><br>September 4, 2020   | <b>Date of Board Meeting:</b><br>September 17, 2020 |
| <b>Subject:</b><br>Preliminary Screening Determination and Workplan                    |   |

#### 1. Purpose

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) a request from Northwest Territories Power Corporation (NTPC) for exemption from preliminary screening for the Water Licence (Licence) Application (MV2020L4-0004) renewal of the Bluefish Power Generation Facility.

#### 2. Background

- June 26, 2006 – Issuance of Licence (MV2005L4-0008) (renewal of N1L4-0735);
- July 8, 2011 – Issuance of Licence (MV2009L4-0004) (construction of new power generation facility)
- October 12, 2012 – Issuance of amendment to MV2005L4-0008 to include the new dam;
- July 16, 2020 – Application for Water Licence (MV2020L4-0005) received;
- July 24, 2020 – Application deemed complete and public review commenced;
- August 4, 2020 – Reviewer comments due on preliminary screening and workplan;
- August 25, 2020 – Reviewer comments and recommendations (on Application) due and received;
- September 3, 2020 – Responses submitted by the Proponent;
- **September 17, 2020 – Preliminary Screening exemption request presented to the Board; and**
- April 2, 2021 – Expiration of Licence [MV2005L4-0008].

#### 3. Discussion

##### History

The Bluefish Power Generation Facility uses water from Duncan Lake and Yellowknife River drainage basins. Duncan Lake is a large lake to the northwest of Bluefish Lake where the Power Generation Facility’s primary dam is located. Water flows from Duncan Lake through the McCrea River to Neck Lake, then to Short Point and Angle Lake. Water from Angle Lake flows into Quytta Lake and then into Bluefish Lake where the Duncan River system joins the Yellowknife River system.

Prior to the damming of Bluefish Lake in 1940 and diverting of the Yellowknife River through the Bluefish penstock, the Yellowknife River connecting Bluefish and Prosperous Lakes went over a waterfall at the outlet from Bluefish Lake.

In 1940, a 183 m earth/wood dam was constructed at the outlet to Bluefish Lake. Part of the flow of the Yellowknife River is diverted through a hydroelectric generating intake. The main water storage area of the Bluefish Power Generation Facility is at Duncan Lake. A concrete control dam has been constructed near the south end of Duncan Lake. The primary purpose of the Duncan Lake dam is to control water levels in Bluefish Lake. The Duncan Lake control dam was originally built in 1942 and rebuilt in 1974 using concrete, repairs were required in 1994 due to concrete erosion.

The Bluefish dam structure was modified on three occasions – 1973, 1983 and 2007. The auxiliary spillway built into the timber crib was removed and replaced by timber crib in 1972.

In the winter of 2007/2008 and spring of 2008 several deficiencies became apparent with respect to the existing Bluefish Dam that NTPC determined represented a significant risk and required immediate attention. The deficiencies were:

- 1) A leak that developed near the left abutment of the dam resulting in a sinkhole in the upstream mat. The volume of material lost was approximately 35m<sup>3</sup>.
- 2) The overflow spillway had deteriorated to the point of collapse. This has become apparent after the delaminating of the timber sheeting of the downstream face of the overflow spillway.

As a result of the deficiencies, NTPC submitted an Application (MV2009L4-0004) for the construction of a new Power Generation Facility downstream from the then existing Bluefish Facility. On July 8, 2011, a Licence was issued for the construction of the new primary impound dam with an expiration date of May 30, 2014 (attached).

In the spring of 2012, it was determined that the best approach to incorporate the new dam into a licence would be to amend Licence MV2005L4-0008 (operation of existing dam). An application for amendment to this Licence was received from NTPC. The requested amendment was specific to the new dam. On July 5, 2012, the Board determined that no public hearing was required for the Application. On the same date, the Board also determined that it was not necessary to conduct a preliminary screening for the Application (attached).

#### Description of Application

On July 16, 2020, NTPC submitted an Application (attached) for the renewal of Licence MV2005L4-0008 which is for the use, diversion and storage of water from the McCrear River and the Yellowknife River to Duncan and Bluefish Lakes, respectively, for the Class II hydroelectric power undertaking and associated uses related to the Bluefish Power Generation Facility.

On July 24, 2020, the Application was deemed complete and the review commenced. During the review it was requested that comments on the draft workplan and exemption from preliminary screening be submitted to Board staff by August 4, 2020.

By August 4, 2020, no comments were received from reviewers or NTPC on the draft workplan or the exemption from preliminary screening.

#### Engagement

An Engagement Record and Engagement Plan were included in the Application. NTPC noted they engaged with the following parties:

- Akaitcho IMA Implementation Office
- Cassidy Point Association
- City of Yellowknife
- Dene Nation
- Deninu Kų́ę́ First Nation
- Fort Resolution Metis Council
- K'at'odeeche First nation
- Łutsek'e Dene First Nation
- Local Lease Holders
- Manitoba Denesuline
- North Slave Métis Alliance
- Northwest Territories Métis Nation
- Salt River First Nation
- Smith's Landing First Nation
- Tłıchq Government
- Tłıchq Lands Protection Department
- Tłıchq Regulatory Specialist
- Town of Fort Smith
- Town of Hay River
- Wek'èezhii Renewable Resources Board
- West Point First Nation
- Yellowknives Dene First Nation

### Engagement Summary

- 1) Email to all stakeholders with notification letter regarding the NTPC's Type A water licence renewal application for the Bluefish Power Generation Facility. Letter included general information about the project and application process.
  - a. Notification email to all stakeholders with letter was sent May 8, 2020.
- 2) Email to stakeholders in the region with invitation to set up virtual engagement meetings to gather further information for the project given COVID-19 pandemic.
  - a. Yellowknives Dene First Nation, City of Yellowknife, Dene Nation, North Slave Métis Alliance, Fisheries and Oceans Canada (DFO), and GNWT Environment and Natural Resources (ENR) contacted on May 22, 2020.
  - b. Tłıchq Government contacted on May 25, 2020
  - c. Cassidy Point Homeowners Association contacted on May 27, 2020
- 3) Information Package to all stakeholders regarding Bluefish Power Generation Facility and water licence renewal application. Information package provided by email and provided dates for the online public information sessions.
  - a. Information Package sent to all stakeholders on May 28, 2020
- 4) Online Public Information Sessions that included a presentation on the Bluefish Power Generation Facility and water licence renewal application with opportunities for questions (hosted using Microsoft Teams software). Information related to Online Public Information Sessions is provided in Appendix C including notification poster, Yellowknifer advertisement, text for Cabin Radio advertisement, presentation slides and meeting notes
  - a. Notification poster sent to all stakeholders on June 4, 2020.
  - b. Yellowknifer advertisement ran in June 10, 2020 issue
  - c. Cabin Radio advertisement ran 10 times per day on June 10-12, 2020
  - d. Sign in information was provided to all stakeholders on June 10, 2020
  - e. Online Public Information Session 1 was held at 7:00pm on June 11, 2020
  - f. Online Public Information Session 2 was held at 2:00pm on June 12, 2020

6. Virtual stakeholder engagement meetings were held with stakeholders to gather input on the water licence renewal application (hosted using Skype software platform). Agenda was provided to all attendees before meeting and notes were provided after meeting concluded for comment.
- a. Virtual stakeholder engagement meeting with Tłıchǫ Government was held on June 3, 2020
  - b. Virtual stakeholder engagement meeting with DFO was held on June 8, 2020
  - c. Virtual stakeholder engagement meeting with North Slave Métis Alliance was held on June 9, 2020
  - d. Virtual stakeholder engagement meeting with GNWT - ENR was held on June 10, 2020
  - e. Virtual stakeholder engagement meeting with Yellowknives Dene First Nation was held on June 23, 2020

#### Draft Workplan

Board staff have reviewed work plans for other concurrent proceedings and there are no conflicting dates.

Table 1: Draft Workplan

| Item # | Task  | Responsible Party  | MVLWB Day Count (275 Max) | Due Date (Date Completed)    |
|--------|---|--------------------|---------------------------|------------------------------|
| 1.     | Application Submitted   | Proponent          | 0                         | (July 16, 2020)              |
| 2.     | Application deemed complete and sent out for review               | MVLWB staff        | 0                         | (July 24, 2020)              |
| 3.     | Reviewer comments due on Preliminary Screening and Draft Workplan | Reviewers          | 19                        | (August 4, 2020)             |
| 4.     | Reviewer Comments due on Application                              |                    | 40                        | (August 25, 2020)            |
| 5.     | Proponent responses to Reviewer comments due                      | Proponent          | 40                        | (September 3, 2020)          |
| 6.     | <b>Technical session (if required)</b>                            | <b>All Parties</b> | <b>58-59</b>              | <b>September 22-23, 2020</b> |
| 7.     | Circulate Information Requests from Technical Session             | MVLWB staff        | 61                        | September 25, 2020           |
| 8.     | Deadline to respond to Information Requests                       | All Parties        | 61                        | October 8, 2020              |
| 9.     | <b>Deadline for Interventions</b>                                 | <b>Interveners</b> | <b>73</b>                 | <b>October 20, 2020</b>      |
| 10.    | <b>Pre-Hearing Conference</b>                                     | <b>All Parties</b> | <b>73</b>                 | <b>October 28, 2020</b>      |
| 11.    | Proponent responses to Interventions                              | Proponent          | 73                        | November 4, 2020             |
| 12.    | Deadline for Intervener Public Hearing presentations              | Interveners        | 81                        | November 12, 2020            |
| 13.    | Proponent Public Hearing presentation due                         | Proponent          | 87                        | November 18, 2020            |
| 14.    | <b>Public Hearing</b>   | <b>All Parties</b> | <b>95</b>                 | <b>November 25-26, 2020</b>  |

|     |   |              |               |                   |
|-----|---|--------------|---------------|-------------------|
| 15. | Circulate Public Hearing Undertakings                     | MVLWB staff  | 99            | November 30, 2020 |
| 16. | Public Hearing Undertakings due                           | All Parties  | 99            | December 7, 2020  |
| 17. | Circulate Draft Licence                                   | MVLWB staff  | 109           | December 17, 2020 |
| 18. | Reviewer comments due on Draft Licence                    | Reviewers    | 137           | January 14, 2021  |
| 19. | Proponent responses to reviewer comments on Draft Licence | Proponent    | 137           | January 25, 2020  |
| 20. | Deadline for Closing Arguments from Interveners           | Interveners  | 144           | February 1, 2021  |
| 21. | Deadline for Closing Arguments from Proponent             | Proponent    | 144           | February 8, 2021  |
| 22. | <b>Board decision on Application</b>                      | <b>MVLWB</b> | -             | <b>March 2021</b> |
| 23. | Water Licence sent to the GNWT Minister for review        | Board staff  | -             | March 2021        |
| 24. | Current Water Licence Expires                             | -            | -             | April 2, 2021     |
| 25. | Final decision from the GNWT Minister                     | Minister     | Up to 90 days |                   |

#### Type of Area

This Project is located in a non-federal area.

#### Fees

On May 4, 1988, NTPC was witnessed as a crown corporation when the Northern Canada Power Commission was acquired from Her Majesty the Queen in Right of Canada by the Government of the Northwest Territories. As a Crown Corporation, NTPC is exempt from paying fees or security depositions in relation to its Power Generation Facility.

### 5) Comments

#### Triggers

Under Schedule B of the Waters Regulation, the description of a Power undertaking is that which generates less than 150 kW to more than 100,000 kW. NTPC falls under the Power undertaking as the water is being used for the generation of electricity.

Under Schedule G, of the Waters Regulations NTPC requires a licence for the use of water over to generate over 150 kW of electricity.

### 6) Public Review

By August 4, 2020, there were no comments or recommendations on the preliminary screening exemption request or the draft workplan.

By August 25, 2020, comments and recommendations on the Application were received from six reviewers:

- Environment and Climate Change Canada;

- Fisheries and Oceans Canada;
- GNWT – Environment and Natural Resources (Environmental Assessment and Monitoring);
- Mackenzie Valley Land and Water Board staff;
- North Slave Métis Alliance; and
- Tłıchǫ Government.

NTPC responded by September 3, 2020. The Review Summary and Attachments (attached) presents the concerns identified through this review.

### Main Issues Raised during the Review

The following summarizes the location of concerns raised during the review:

- Spill Contingency Plan
  - Simulation exercises
  - Errors in the table of contents (needs updating)
  - Updating figures to provide clarity
  - Updating table to provide clarity
- Aquatic Effects Monitoring
  - Rational as to why no AEMP is required
- Scope of the undertaking
  - Why “alter the flow of, or store water” was not selected in the application form
- Flow Monitoring Report
  - Status of the Report
- General Monitoring
  - Request for proposed monitoring to be complete or rational as to why no monitoring is proposed
  - What is the schedule of monitoring
- Surveillance Network Program
  - Continue with the current program or modify the program
- Dam Safety Review
  - What work has been done to address the items brought forward during the review
- Waste Management Plan
  - Incineration of food waste increases carbon footprint .
- Minimum flow.
- Operations, Maintenance and Surveillance Manual.
  - Rational as to why Duncan Lake Dam was excluded; (Volume 1)
  - Rational as to why Bluefish Lake Dam was excluded (Volume 2)
  - Clarification as to why the Manual is only in Draft form.
  - Drawings (not signed or stamped) clarification
- Environmental Studies Screening Level Environmental Assessment.
  - What monitoring is to be completed in the future
  - What monitoring was complete in 2019
  - Clarification on Table 1
- Mercury Monitoring Program.
  - Request to continue the program
  - Communication of the results of the program
- Fisheries Authorization
  - Working with DFO moving forward with the possible requirement of a Fisheries Authorization

## Preliminary Screening

On September 7, 2005, the Board determined that the renewal application for Licence N1L4-0735 was exempt from preliminary screening as the application (MV2005L4-0008) was related to the undertaking that was subject to a licence issued before June 22, 1984 (attached). The application also did not represent a significant alteration to the project nor was it for the abandonment and decommissioning of a project.

On October 8, 2009, the Board determined that emergency conditions existed and that pursuant to paragraph 119(b) of the Mackenzie Valley Resources Management Act no preliminary screening was required for Water Licence MV2009L4-0008 (attached). Paragraph 119(b) stated that no preliminary screening, environmental assessment and environmental impact review is required to be conducted in relation to a proposal of a development that is carried out in response to an emergency in circumstances such that it is in the interest of public welfare, health or safety to carry out the proposal forthwith.

On July 5, 2012, the Board determined that no public hearing is required for the Amendment Application (MV2005L4-0008) and that the Application is exempt from preliminary screening (attached).

On July 16, 2020, with the Application, NTPC indicated that they are of the opinion that their project is exempt from preliminary screening as it is a renewal of an existing Type A water licence for an existing facility of which operational parameters are not changing. NTPC feels the Bluefish water licence renewal is exempt from the Preliminary Screening process under Section 2 of Part 1 of the Preliminary Screening Exemption regulations that states: "A development, or part thereof, for which renewal of a permit, licence or authorization is requires that:

- a) Has not been modified; and
- b) Has fulfilled the requirement of the environmental assessment process established by the Mackenzie Valley Resource Management Act, the Canadian Environmental Assessment Act or the Environmental Assessment Review Process Guidelines Order.

## **7) Security**

See Fees section for explanation.

## **8) Conclusion**

Not applicable

## **9) Recommendation**

Board staff recommend the Board:

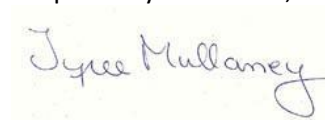
- a) **Confirm the Application for Water Licence MV2020L4-0005 from Northwest Territories Power Corporation is exempt from preliminary screening as per the Exemption List Regulations.**
- b) Board staff request the Board consider accepting the draft work plan as submitted by Board staff.

A draft decision letter is attached.

## 10) Attachments

- [MV2005L4-0008 – Preliminary Screening Exemption under Section 157.1 of the Mackenzie Valley Resource Management Act](#)
- [MV2005L4-0008 – Water Licence](#)
- [MV2009L4-0004 – Preliminary Screening Exemption under Paragraph 119\(b\) of the Mackenzie Valley Resource Management Act](#)
- [MV2009L4-0004 – Water Licence](#)
- [MV2005L4-0008 – Preliminary Screening Exemption of Amendment Application](#)
- [MV2005L4-0004 – Water Licence - Amendment](#)
- [MV2020L4-0005](#)
  - [Cover Letter](#)
  - [Water Licence Application Form](#)
  - [Environmental Studies Summaries and Screening – Level Environmental Assessment](#)
  - [Abandonment and Restoration Plan](#)
  - [Duncan Dam – GIS Data](#)
  - [Emergency Preparedness Plan](#)
  - [Engagement Log – Minutes](#)
  - [Figures](#)
  - [Bluefish Dam – GIS Data](#)
  - [Hydro-electric Development Questionnaire](#)
  - [Land Lease Information](#)
  - [Public Safety Plan](#)
  - [Spill Contingency Plan](#)
  - [Waste Management Plan](#)
  - [Operation Maintenance and Surveillance Manual V1](#)
  - [Operation Maintenance and Surveillance Manual V2](#)
  - [Engagement Plan](#)
  - [Engagement Log](#)
  - [Dam Safety Review](#)
- [News Paper Ad – Application Receipt](#)
- [Draft Workplan – V1](#)
- Project Presentation
- Draft Decision Letter from the Board

Respectfully submitted,



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