



Keeyask Generation Project  
Resource Use Monitoring Plan

Resource Use Monitoring Report  
RUMP-2023-01



# KEYYASK GENERATION PROJECT

## RESOURCE USE MONITORING PLAN

REPORT #RUMP-2023-01

### RESOURCE USE MONITORING: NOVEMBER 2020 TO OCTOBER 2022

Prepared for

Manitoba Hydro

By

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# SUMMARY

## Background

Construction of the Keeyask Generation Project (the Project) at Gull Rapids began in July 2014. The Keeyask Hydropower Limited Partnership (KHLPP) was required to prepare a plan to monitor the effects of construction and operation of the generating station on the environment. Monitoring results will help the KHLPP, government regulators, members of local First Nation communities, and the public understand how construction and operation of the generating station will affect the environment, and whether more needs to be done to reduce harmful effects.

Resource use is important to monitor because it is important to local First Nation people. On-site harvests by Project workforce personnel are not expected because of rules that prohibit hunting and fishing there (KHLPP 2014). However, if the workforce is harvesting resources in off-site areas, this may affect the success of local First Nation peoples' domestic resource use. The Project also may increase the use of the area by other resource harvester groups such as licensed hunters and fishers in off-site areas. Levels of harvest, occurring on the Project site by local authorized resource users, is also important to understand.

## Why is the study being done?

Monitoring from November 2020 to October 2022 was conducted to answer the following question:

- Has the Project or its workforce caused a change in the levels of licensed (non-Indigenous) harvest? In other words, is there more use of the area for resource harvest due to the presence of the workforce or for other reasons related to the Project?

## What was done?

Three officials from Manitoba Natural Resources and Northern Development (MNRND) were interviewed to understand and record changes in licensed (non-Indigenous) harvests in the area. Additional information about hunting or fishing in the area was collected during studies conducted as part of the Aquatic and Terrestrial Environment Monitoring Plans.

## What was found?

Phone and email correspondence with MNRND officials indicated that demand for moose licences remained high in northern Manitoba. This general increase in demand likely reflects closures in southern hunting areas and therefore is not Project-related. The number of available caribou hunting licences has not changed and therefore demand has remained the same. Hunting pressure for caribou in the Project area is largely dependent on the presence of caribou herds in the region and fluctuates seasonally.

Because there isn't a physical licensing vendor in Gillam, most Keeyask workers would have applied for recreational fishing licences on-line. These licences are issued to be used provincewide. As a result, it cannot be determined from licence purchase records where an angler chooses to fish in the province. Downsizing of the Keeyask workforce in 2021 and 2022 has coincided with an observed decrease in angler fishing activity in areas close to the Keeyask Project site along Provincial Road 280.

**What does it mean?**

Hunting and fishing pressure by resident tag holders in the Project area is difficult to determine based on the lack of harvest reporting and the ability to purchase general tags not tied to a specific Game Hunting Area (GHA). Moose hunting pressure remains high throughout northern Manitoba whereas caribou tag numbers have remained constant with limited tags available to resident hunters.

There seems to be a decrease in recreational fishing near the Keeyask Project site compared to earlier in the Project's construction phase.

**What will be done next?**

Licensed harvest monitoring will continue for eight years into operation. The next report will be prepared in 2025 to describe licensed harvesting between November 2022 and October 2024.

# ACKNOWLEDGEMENTS

We would like to thank Manitoba Hydro for the resources and support to conduct this study.

Vicki Trim, a Regional Wildlife Manager with Natural Resources and Northern Development is thanked for providing information on hunting activity and license information in the region.

Saraj Thethy, a Regional Fisheries Manager with Natural Resources and Northern Development is thanked for providing information on fishing activity and license information in the region.

Ian Van Nest, a Manitoba Conservation Officer with Natural Resources and Northern Development, thank you for providing information on fishing activity in the region.

# STUDY TEAM

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# 1.0 INTRODUCTION

The Keeyask Generation Project (the Project) is a 695-megawatt (MW) hydroelectric generating station on the lower Nelson River in northern Manitoba. The GS is approximately 725 kilometres (km) northeast of Winnipeg, 35 km upstream of the existing Kettle Generating Station, 60 km east of the community of Split Lake, 180 km east-northeast of Thompson and 30 km west of Gillam. Construction of the GS began in July 2014 and the seven generating units were all in-service in March 2022.

An assessment of resource use, including a description of the environmental setting, effects, and mitigation, and a summary of proposed monitoring and follow-up programs is provided in the Resource Use section of the Keeyask Generation Project: Response to EIS Guidelines and the Socio-Economic Environment, Resource Use and Heritage Supporting Volume (SE SV).

A Resource Use Monitoring Plan (RUMP) was developed to monitor activities of various components of resource use for the construction and operation phases of the Project. Monitoring as set out in this plan has been carried out between 2014 to 2022 except for 2017 and 2020 monitoring years. This document provides results of RUMP monitoring between November 2020 and October 2022.

## 1.1 OBJECTIVES AND RATIONALE

There are five objectives of the resource use monitoring. They are:

- To determine if the workforce is hunting, fishing or gathering within or outside the Project site and, if so, whether the harvest could adversely affect domestic resource use;
- To document any Project-related changes to moose and caribou licence demand, harvest patterns and, if feasible, harvest quantities;
- To document any Project-related changes to licensed fish harvest patterns and fishing intensity;
- To summarize resource use access requests and collect voluntary harvest information from authorized resource harvesters on the Project site; and
- To consolidate relevant information generated from other monitoring programs/plans (e.g., physical, aquatic, and terrestrial).

To achieve these objectives, the following activities were completed:

- Construction workforce surveys were conducted in 2014, 2015, 2018, and 2019 to document fishing, hunting, and plant/medicine gathering activities undertaken by the workforce. No further surveys will be conducted as the construction workforce has diminished now that the generating station is in the operational phase;

- Communications with Keeyask environmental site personnel were conducted in 2014, 2015, 2018, and 2019 to understand harvesting activities undertaken by the workforce and to request gate records of site access by authorized resource users. Gate records were unavailable for the current report due to the reductions of onsite staff;
- For this report, interviews were conducted with officials from Manitoba Natural Resources and Northern Development (MNRND) to understand any changes to licensed hunting and fishing and whether these changes have any linkages to the Project or its workforce; and
- Any resource users (e.g., hunting or fishing groups) encountered during monitoring programs conducted under the Aquatic or Terrestrial Effects Monitoring Plans were noted.

The study area included areas east of Thompson, the Provincial Road 280 corridor, the Keeyask Project site, and the Gillam area (Map 1).



Map 1. Keeyask Study Area.

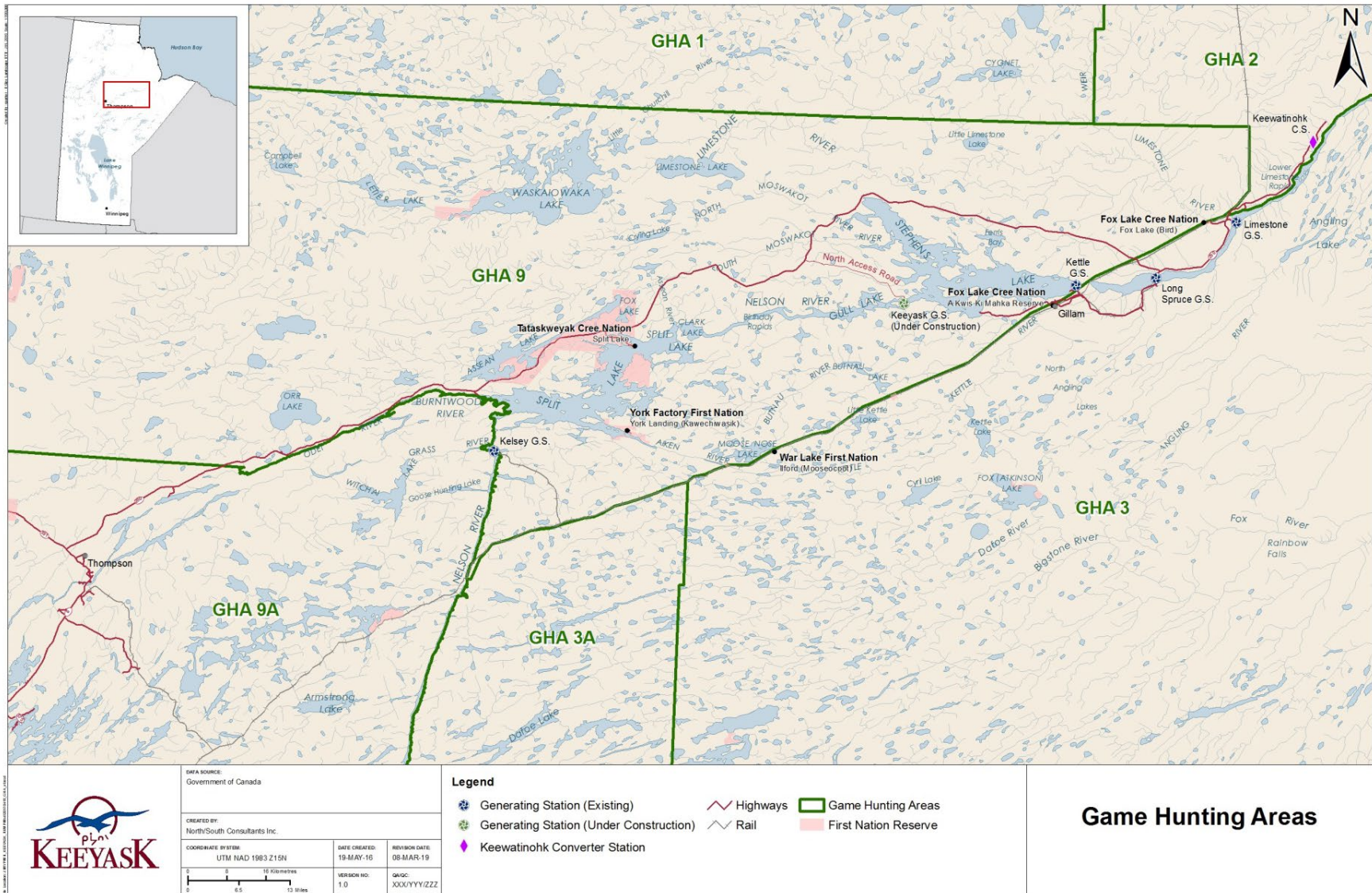
## 2.0 METHODS

A telephone interview was conducted with Vicki Trim, the Regional Wildlife Manager for northern Manitoba on February 22, 2023, to gather expert perspectives on the changing demand for licences (moose and caribou), changes in the spatial distribution of resource use associated with the Project or its workforce, and changes in intensity of resource use associated with the Project or its workforce. Similar interviews were conducted with Saraj Thethy, the Regional Fisheries Manager for northern Manitoba, on March 24, 2023, and with Ian Van Nest, a Conservation Officer and the District Supervisor for Gillam, on April 13, 2023, to gather information surrounding fishing pressure and changing demand for licences in and around the Project area. Interview questions are provided in Appendix 1.

It should be noted that it is not possible to directly link changes in licence demand to effects of the Project on resource use due to factors such as moose hunters moving to the northern part of Manitoba from the south due in part to Game Hunting Area (GHA) closures in the south. Also, for the six GHAs that intersect within the Project region (Map 2) and several other GHAs, moose licensing is open or general and harvest is not tracked specifically by GHA.

Gate records noting site access by authorized resource users were unavailable due to the reductions of onsite staff. The gate was removed in 2023 and minimal construction staff remain on site.

Any resource users (e.g., hunting or fishing groups) encountered during monitoring programs conducted under the Aquatic or Terrestrial Effects Monitoring Plans were noted.



Map 2. Game Hunting Areas.

## **3.0 RESULTS**

### **3.1 INTERVIEWS WITH MANITOBA NATURAL RESOURCES AND NORTHERN DEVELOPMENT**

#### **3.1.1 LICENSED MOOSE AND CARIBOU HUNTING**

According to the official interviewed, moose hunting pressure has increased dramatically in northern Manitoba over the last several years due in part to hunting closures in the south of the province, easier road access, and fly-in programs. It should be noted that moose tags are available for purchase across the province for use in the north and the Project area, and therefore, it is not possible to know which GHA the licences are used in. The availability of non-resident moose tags has not increased in recent years and remains low.

Demand for caribou licences remained high and the MNRND official noted that this did not change during the study period. Seventy-five tags are available for GHA 3<sup>1</sup> and all were sold in 2021 and 2022 (Map 2). The number of available tags for GHA 2 remained at 120 as in previous years, however, the MNRND official indicated only approximately ten are sold per year. Non-resident tags are not available for caribou in Manitoba.

#### **3.1.2 LICENSED FISHING**

The Regional Fisheries Manager stated that information was limited to be able to detect any changes in recreational fishing activities in northern Manitoba during the study period. Because there is not a physical licensing vendor in Gillam, most Keeyask workers would have applied for recreational fishing licences online. These licences are issued to be used province-wide and the regional Wildlife and Fisheries Branch does not keep records of where a licence purchaser chooses to fish or ask recreational fishers to report their catches. Therefore, any changes occurred to the overall intensity of licensed fishing in northern Manitoba, it would not be reflected through licence purchases.

The Conservation Officer and the District Supervisor for Gillam stated that elevated fishing activity was observed in the Gillam area during Project construction. Keeyask workers housed at the Kettle GS camp were frequently seen fishing in the Gillam area during spring and summer. A few of the more popular fishing spots included Wilson Creek, the Kettle River pumphouse, Dike #5,

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<sup>1</sup> The study area also includes portions of GHA 9; however, caribou licenses are not issued in this GHA.

and the area immediately below the Kettle Generating Station. However, since the recent downsizing of the Keeyask workforce (workforce numbers are provided in Appendix 2), he could not confirm whether angler fishing activity concurrently decreased in the Gillam area. Closer to the Keeyask Project site, the officer noted there were far less people fishing off Provincial Road 280 near the North Moswakot bridge than there were when workers were stationed at start-up camp early in Project construction.

## **3.2 RESULTS FROM OTHER MONITORING ACTIVITIES**

No waterfowl hunting groups were observed in the Keeyask reservoir and surrounding area during either the 2021 or 2022 waterfowl survey (WRCS 2023). Access continues to be limited due to the closure of both the North and South access roads to the public. This differed from previous surveys in 2015, 2017, and 2019, when there were two or three hunting groups observed (WRCS 2016, 2018, and 2020). Generally, hunting groups were observed on Clark Lake at the mouth of the Assean River, and on the Nelson River between Birthday Rapids and Clark Lake.

No additional hunting or fishing groups were noted during any other monitoring programs.



## 4.0 SUMMARY AND CONCLUSIONS

### 4.1 CHANGES IN LICENSED HUNTING AND FISHING

The objectives of resource use monitoring during the late construction and early operation periods were to determine if licensed hunting and licensed fishing have changed since the Project began, and if those changes were caused by the Project.

Email and phone correspondence with an MNRND official indicated that increased demand for moose licences has not been detected locally as they are for sale across the province. However, hunting demand for moose in northern Manitoba has increased dramatically over the last few years. This general increase in demand likely reflects closures in southern hunting areas and therefore is not Project-related.

No change in caribou hunting has been detected, though demand for caribou hunting licences in GHA 3 remains high.

Fishing activity appears to have decreased along Provincial Road 280. This is likely due to the closure of the Keeyask start-up camp and to the progressive downsizing of the workforce housed at the Keeyask Project site. It is not known whether fishing activity has changed in the Gillam area.

### 4.2 INFORMATION COLLECTED FROM OTHER MONITORING PLANS

Increased hunter access and pressure along the North and South access roads did not occur as access to the public remained restricted. It is possible that waterfowl hunting pressure may increase in these areas once they are accessible to the public. No additional hunting or fishing groups were noted during any other monitoring programs.

### 4.3 CONCLUSION

All sources of information suggest resource harvests are not likely to cause a detectable change in the success of local Indigenous harvests. However, changes that have occurred between November 2020 and October 2022 include:

- A general (not Project-related) increase in moose hunting pressure in northern Manitoba; and
- Lower levels of fishing along Provincial Road 280 since the decrease of the Keeyask GS workforce and the closure of start-up camp.

Changes in regional caribou hunting patterns and harvests of any species within site boundaries were not detected.

## 5.0 LITERATURE CITED

### 5.1 LITERATURE CITED

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### 5.2 PERSONAL COMMUNICATIONS

Thethy, S. Manitoba Natural Resources and Northern Development. Regional Fisheries Manager for northern Manitoba. March 24, 2023. Email correspondence with S.C. Lavergne, North/South Consultants Inc.

Trim, V. Manitoba Natural Resources and Northern Development. Regional Wildlife Manager for northern Manitoba. February 22, 2023. Phone correspondence with D. Burnett, North/South Consultants Inc.

Van Nest, I. Manitoba Natural Resources and Northern Development. Conservation Officer and the District Supervisor for Gillam. April 13, 2023. Email correspondence with S.C. Lavergne, North/South Consultants Inc.

# APPENDICES

# **APPENDIX 1: INTERVIEW GUIDE FOR MANITOBA SUSTAINABLE DEVELOPMENT RESOURCE MANAGERS**

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Table A1-1: Interview guide for Manitoba Sustainable Development resource managers.  
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**Table A1-1: Interview guide for Manitoba Sustainable Development resource managers.****Keeyask Generation Project (KGP) Resource Use Monitoring Plan (RUMP)**

The purpose of the questionnaire is to consult resource MCWS managers' expertise to meet the following RUMP objectives:

- To document any changes to moose and caribou license demand, harvest patterns and, if feasible, quantify harvests; and
- To document any changes to licensed fish harvest patterns and fishing intensity.

Results will be published in a short report entitled: Resource Use Monitoring Plan: Results of Year 5 Monitoring produced for the Keeyask Hydropower Limited Partnership.

**Questions:****Moose:**

For the period between November 2020 and October 2022:

- Are you aware of changes to demand for moose licences in the Project area including GHAs 9, 2 and 3? If so, could you please explain the changes?
- Have you noticed any changes to the patterns of moose hunting/harvesting by resident licensed hunters specifically in GHA 9 (eastern portion), GHA 2 (south portion) and GHA3 (north central portion)? Were there any changes associated with the Project's workforce in 2021?
- Have you noticed any changes to the patterns of moose hunting/harvesting by non-resident licensed hunters? If so, were any changes associated with the Project's workforce?
- Can a quantitative estimate of licenses/ harvest be developed for the Project area that relates to the GHA areas noted above?
- Are there any other changes that you would like to note?

**Caribou:**

For the period between November 2020 and October 2022:

- Are you aware of changes to demand for caribou licences? If so, could you please explain?
- Are the same number of licences being issued for GHA 2 and GHA 3 as in previous years? If so, could you please confirm the number of licences issued for each GHA and the success rate?
- Have you noticed any changes to the patterns of caribou hunting/harvesting by resident licensed hunters? Were any changes associated with the Project's workforce?

- Are there any other changes that you would like to note?

**Fish:**

For the period between November 2020 and October 2022:

- Are you aware of changes to the overall intensity of licensed fishing? Have there been increases or decreases in activity at specific locations? If so, were any changes associated with the Project's workforce?
- Have any changes in fishing effort led to changes in harvest, species harvested or a redistribution of harvest? Were any noted changes related to the Project's workforce?
- Are there any other changes that you would like to note?

## **APPENDIX 2: EMPLOYMENT STATISTICS FROM KEYYASK.COM**

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Table A2-2: Employment statistics for end of March 2022. ....	16



**Table A2-1: Total Project Employment statistics January 2012 to March 2022.****TOTAL PROJECT HIRES**

January 2012 to March 2022

	<b>Total Hires</b>	<b>% of Total Hires</b>
Total Project Hires	28889	N/A
Indigenous	11428	40%
Manitobans	20055	69%
Partner Communities	5554	19%

Source: KHLP (2023).

**Table A2-2: Employment statistics for end of March 2022.****ACTIVE PROJECT HIRES**

Active Hires in March 2022

	<b>Active Hires</b>	<b>% of Active Hires</b>
Active Project Hires	529	n/a
Indigenous	209	40%
Manitobans	465	88%
Partner Communities	125	24%

Source: KHLP (2023).