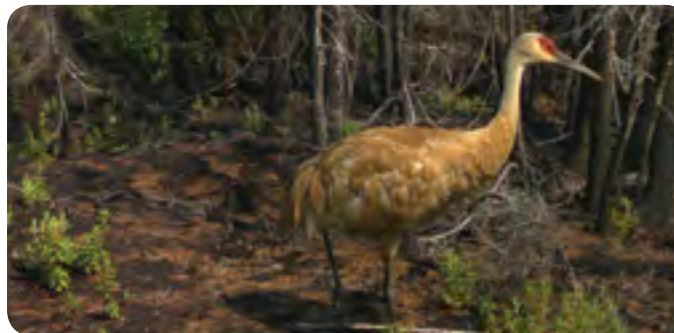




Keeyask Infrastructure Project

Monitoring Overview



2012 - 2014



Hydropower Limited Partnership

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Message from the Chair of the General Partner of KHLPP

The Keeyask Hydropower Limited Partnership (KHLPP) is pleased to present the Keeyask Infrastructure Project (KIP) Monitoring Overview. The KIP began in January 2012 and the primary work included the access road construction and camp development. The KIP, which is now complete, allowed for a timely and efficient construction start on the Keeyask Generation Project, once it was licensed, and provided early employment and business opportunities for northern First Nations Members, Aboriginal people and other northern and Manitoba workers.

The KIP as well as the Keeyask Generation Project, are developments of the KHLPP, which is a partnership between Manitoba Hydro and four First Nations: Tataskweyak Cree Nation (TCN) and War Lake First Nation (WLFN) (the Cree Nation Partners), York Factory First Nation (YFFN) and Fox Lake Cree Nation (FLCN).

During the course of planning for the KIP, the partner First Nations worked with Manitoba Hydro to establish the location of the Keeyask main construction camp and the route for the access road based on traditional knowledge and technical science. Traditional ceremonies, led by partner First Nations' Members, were undertaken at significant construction milestones to express respect for the land and resources, and to address project effects on culture and heritage.

On-going environmental monitoring and mitigation measures were implemented throughout the duration of the construction project, consistent with the *Environment Act* Licence issued for the KIP. This *Monitoring Overview* summarizes the results of these efforts; separate technical reports were filed annually with regulators under the terms and conditions of the *Environment Act* Licence.

For 2014/15, the KHLPP also produced an *Environmental Overview* summarizing the outcomes of the Environmental Protection Program for the Keeyask Generation Project, and a *Year in Review* document outlining major accomplishments in the construction of the generating station, which got underway in July 2014. All of these reports are available on the KHLPP website: www.Keeyask.com.

I am proud of what we accomplished as partners in the development of the KIP. As we move forward with construction of the Keeyask Generation Project, continuing to carefully mitigate and monitor the anticipated environmental effects will remain a key priority for the Partnership.

Sincerely,

Ruth Kristjanson

Chair of the General Partner of Keeyask Hydropower Limited Partnership
(5900345 Manitoba Ltd.)

Introduction

The Keeyask Infrastructure Project (KIP or the Project) was undertaken by the KHLP, a limited partnership consisting of Manitoba Hydro and four First Nations: Tataskweyak Cree Nation and War Lake First Nation (working together as the Cree Nation Partners), York Factory First Nation and Fox Lake Cree Nation (the Partners). The Partners negotiated an agreement to allow early infrastructure work associated with the KIP to take place in advance of constructing the Keeyask Generation Project.

This decision was made in order to:

- Provide early business opportunities for the partner First Nations;
- Provide early employment opportunities for partner First Nations' Members, northern Aboriginal people and other northern and Manitoba workers;
- Provide additional time for partner First Nations' businesses to develop their management capabilities;
- Respond to existing economic conditions and complete the work on a more cost-effective basis;
- Accelerate investment to support the promotion of sustainable growth in the Province of Manitoba; and
- Provide for timely and efficient construction of the Keeyask Generation Project once the decision to proceed with it was made.

Key components of the KIP included constructing a 25 kilometre all-weather road from PR280 to Gull Rapids (referred to as the North Access Road under the Keeyask Generation Project), constructing a bridge across Looking Back Creek, constructing and operating a temporary start-up camp and developing the first phase of the main camp for the Keeyask Generation Project. The KHLP committed that if a decision was made not to proceed with the Keeyask Generation Project, or if the necessary regulatory approvals were not received, the KIP would be decommissioned and the site would be rehabilitated.

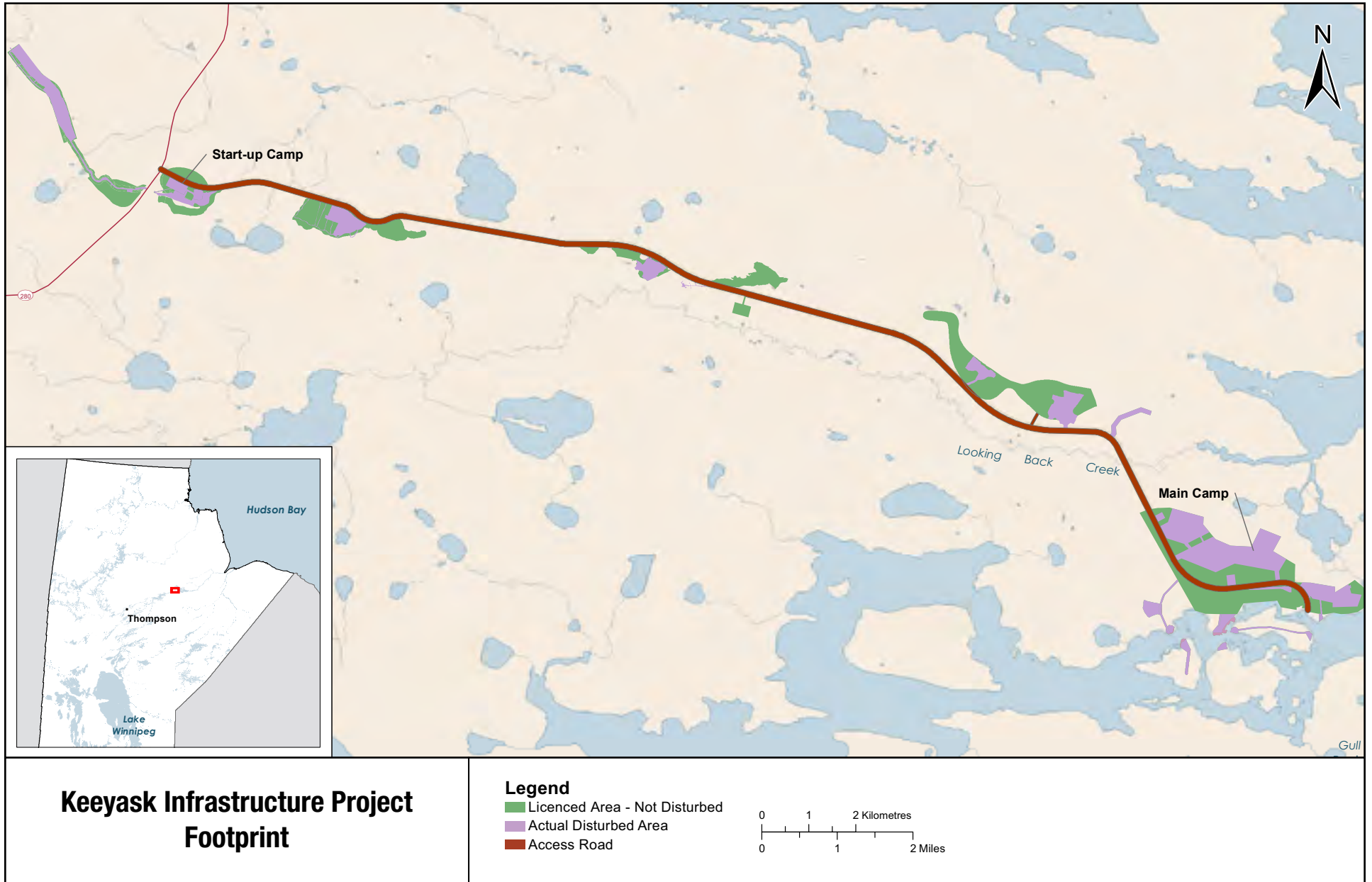
The KHLP submitted an application for regulatory review and approval for the KIP in July 2009.

The application included a detailed environmental

assessment report, which documents the potential effects to the physical, biological and socio-economic environments and heritage resources. The assessment was based on traditional knowledge and technical science, and was supported by a comprehensive public involvement program to help identify potential environmental effects and to address community concerns. The program included community and band member meetings with partner First Nations in Split Lake, Ilford, Gillam, Bird Lake, Churchill, Thompson, and Winnipeg, public open houses in Thompson and Gillam and meetings in Winnipeg with environmental organizations.

Manitoba *Environment Act* Licence No. 2952 was issued on March 8, 2011 to the KHLP for the KIP.





Environmental Protection Program

The KHLP developed a detailed Environmental Protection Program for approval by Manitoba Conservation and Water Stewardship, which included measures to mitigate and monitor potential environmental effects caused by the Keeyask Infrastructure Project. This was a requirement under Manitoba *Environment Act* Licence No. 2952. Monitoring was also shaped by minor licence alterations issued by Manitoba Conservation and Water Stewardship after the Project commenced.

Environmental, social and economic mitigation and monitoring for the construction of the KIP was conducted in accordance with five plans:

- *The Keeyask Infrastructure Project Construction Environmental Protection Plan;*
- *The Keeyask Infrastructure Project Terrestrial and Aquatic Monitoring Plan;*
- *The Keeyask Infrastructure Project Socio-Economic Monitoring Plan;*
- *The Keeyask Infrastructure Project Heritage Resources Protection Plan;* and
- *The Keeyask Infrastructure Project Access Management Plan.*

Manitoba Hydro was responsible for implementing these plans on behalf of the KHLP and monitoring related to the KIP is now complete. Detailed reports on the results of all monitoring were submitted annually to Manitoba Conservation and Water Stewardship and can be found on the KHLP website: www.Keeyask.com.



Construction Summary

Construction on the Project began in early 2012 when trees were cleared for the start-up camp and the access road. Most areas were cleared using a bulldozer except in sensitive areas identified during the environmental assessment. These areas were cleared by hand. Felled trees were either burned under supervision or mulched in order to dispose of them.

Work began on the start-up camp in 2012. The camp included living quarters, offices, garages, and a kitchen. Drinking water for the camp came from a groundwater well located nearby and underwent treatment at a plant located at the start-up camp before it was used for domestic purposes. The water was tested daily to make sure it was safe to use. Sewage from the camp was disposed of at a licensed septic field constructed in 2012/2013.



Construction of the 25 km access road took place from January 2012 until March 2014. Activities included clearing vegetation, building the road, and installing road signs and guardrails. Crushing took place in a borrow pit for several months to produce rock for road construction. Snow clearing took place throughout the winter months.

Two stream crossings were constructed along the access road route. The first was a culvert installed in early 2012 across an unnamed tributary of the South Moswakot River. The second was at Looking Back Creek, where bridge abutments were constructed in 2012 and a clear span bridge (one that does not require any structures in the water) was installed between late 2012 and early 2013.



Fibre optic cables were installed to serve the main camp in 2013 by drilling a hole underneath the bottom of Looking Back Creek and the unnamed tributary and feeding the cables through it. Trenching along the road right-of-way was also completed in 2013 to install a water line, which runs from a groundwater well that was drilled and will serve the main camp. This well is separate from the well serving the start-up camp and is located 18 km from PR 280, off of the access road.



Start-up camp

Constructing the first phase of the Keeyask main camp (the remainder is being constructed as part of the Keeyask Generation Project) and various work areas took place from 2013 to 2014. Work included stripping the vegetation and levelling the surface, installing storm water sewers, constructing both water and sewage treatment plants, installing

temporary power, building foundations and installing piles for buildings, constructing a recreation complex, and installing camp dormitories, diesel generators, fuel tanks, and fencing.



Dorm buildings placed on supports at main camp



Main camp under construction

Environmental Protection Plan

An Environmental Protection Plan was developed for the KIP to provide detailed environmental protection measures to be followed by contractors and construction staff to minimize environmental impacts during construction. A Site Environmental Officer conducted compliance monitoring during construction to confirm the measures outlined in the Environmental Protection Plan, as well as the KIP licence and permits, were met.

Erosion Control

Soil can move into water from project areas where the vegetation has been removed. This is called erosion and it can affect water quality. Because construction sites are often stripped of vegetation, there is a lot of exposed soil that could erode. Using erosion protection devices at a site can help to reduce erosion. Different types of erosion control devices were used around the KIP site to reduce the amount of soil moving off of the construction areas, including rip-rap (rock) that was placed in the ditches and on the banks at the two stream crossings to prevent soil from entering the water.

Spills and Spill Response

The KIP Environmental Protection Plan includes information related to preventing and cleaning up fuel spills, as well as requirements for hazardous materials storage and disposal. All hazardous materials spilled, no matter how small the amount, were cleaned up during the Project.

Between January 2012 and July 2014, there were 11 hazardous material spills that were large enough to be reported to Manitoba Conservation and Water Stewardship as required by law. Eight of the spills were used oil and the other three were glycol (antifreeze). To ensure the spill locations were cleaned up properly, soil samples were collected after clean up from the different spill locations and analysed.

Rip-rap installation at the unnamed tributary crossing for erosion protection





Black bear in construction area

Wildlife

In January 2013, hundreds of caribou were spotted at multiple locations along the access road. In order to protect these caribou while they were moving through the KIP area, regular meetings were held between the Site Environmental Officer, project biologist, contractor and other project staff to keep everyone informed about the caribou while working in the area. Project workers were directed by the Site Environmental Officer to reduce their vehicle speed and not honk or otherwise harass the caribou encountered. Manitoba Conservation and Water Stewardship were also engaged throughout the event. Caribou continued to be spotted in February and March of 2013, though less frequently.

Black bears and red foxes were observed in the KIP area on many occasions. Some became attracted to the start-up camp. There were times when site staff were feeding wildlife and wildlife was getting into garbage bins at the site. Site staff received regular training from the Site Environmental Officer about the importance of not feeding wildlife in order to reduce them from being attracted to the site. “Bear-proof” garbage bins, such as those used in provincial parks, were installed in 2012 to reduce nuisance wildlife attracted to the site.

“Bear bangers” and horns did not work to scare bears away from the Project site. For safety reasons and under the close guidance of Manitoba Conservation and Water Stewardship, Project site staff began to trap and transport nuisance bears away from the KIP site. Four bears were relocated between 2012 and 2014.

There were two collisions between trucks and moose on the access road during the Project. One moose survived and the other did not. Manitoba Conservation and Water Stewardship was notified immediately after each collision and the dead moose was provided to a TCN Elder for use.



Red fox at the start-up camp

Many other types of wildlife were observed in the area during construction of the KIP including, wolves, eagles, gulls, ptarmigans, ducks, sandhill cranes, whiskey jacks and killdeer.

Warning signs for wildlife and speed reduction signs for drivers have been placed along both sides of the road to increase safety and awareness.

Site Visits and Inspections

A number of regulators from Manitoba Conservation and Water Stewardship visited the KIP site over the course of construction. The Regional Forester visited in both 2012 and 2013 to identify merchantable timber at the site. The Natural Resource Officer from Gillam visited the site a number of times to inspect construction activities and provided feedback where improvement could be made. The Regional Fisheries Manager also visited the site in 2013 to examine the two stream crossings.

Terrestrial and Aquatic Monitoring

Water Quality

Monitoring took place upstream and downstream of the two stream crossings along the access road to determine if there was any effect on water quality. Both stream crossings were built in the winter when the potential for soil and other loose debris to enter the creeks was at its lowest, as the ground was frozen/snow covered and the creeks were covered with ice.

Water samples were collected monthly during the open water period in 2012, 2013 and 2014. Dry conditions in the summer months prevented sample collection at some points due to very low water levels. Turbidity (the murkiness of water) was measured upstream and downstream of the two crossings. Where possible, water samples were collected at the same locations each year and sent to a laboratory to determine the amount of sediment, such as sand or clay, suspended in the water. An annual sample was also collected and analyzed at a lab for levels of nitrogen and phosphorus, two nutrients that can increase the amount of algae in water, at the request of Manitoba Conservation and Water Stewardship.

Monitoring results show there was an increase in turbidity observed in August 2012 in the unnamed tributary, downstream from the installed culvert.

This occurred after a heavy rainfall event, prior to rock being placed to line the ditches leading to the tributary. Without the rock in place, soil on the banks was picked up by the rain and carried downstream through erosion, and was detected during monitoring. After the rock was placed in the ditches, the turbidity dropped back to normal levels. In 2013, sediment was observed to be

entering the water from a ditch beside the road where it intersected with Looking Back Creek. This was also caused by erosion from the sides of the road; once the erosion protection (rock) was installed in the ditches, the sediment was not observed again. Other than these two events, there was very little change in water quality as a result of constructing the two stream crossings.

Water quality sampling





Yellow sweet clover growing in the access road ditch

Habitat and Plants

Construction Clearing and Disturbance

When developing a project, the goal is to disturb as little land area as possible, to minimize the effects on terrestrial habitat (the soils and plants present in an area) and the wildlife that depend on it. Aerial surveys were conducted along the road, camps and quarries in 2012, 2013 and 2014 to measure the amount of area actually cleared or disturbed by the KIP. This area was then compared to the amount of habitat predicted to be needed for the KIP to determine the overall area affected. The total area cleared and disturbed for the KIP was approximately half of what was originally planned (see map on page 4).

Accidental Fires

Natural fires play an important ecological role in the boreal forest. Fires can destroy a large amount of habitat in a very short time and plant regrowth in burned areas can take many years. Monitoring for the KIP included a determination of whether the KIP caused fires (it did not) or influenced the behaviour of naturally occurring forest fires. In summer 2013, a large forest fire swept through the KIP area. Post-fire monitoring showed that in some places the cleared areas acted as a fire break, but overall the KIP did not affect where the fire burned.



2013 burn area along the access road

Rare Plants

Rare plants are plants that are not commonly found in an area. Some rare plants are also protected by federal or provincial law. During the KIP construction, surveys for rare plants took place in 2011, 2012 and 2013 in areas that were to be cleared for the KIP including the access road, start-up camp, main camp and borrow areas. No rare plants were found.

Introduction of Invasive and Non-native Plants

Invasive and non-native plants can be introduced to an area during construction activities. Once present in an area, invasive and non-native plants can crowd

out native plants from their habitat. Monitoring for invasive plants found alfalfa, perennial sow thistle, dandelion and clover at the KIP site during surveys in 2012, 2013 and 2014, mostly around the start-up camp and in the roadside ditches. Most of the invasive plants were not found in the KIP footprint prior to development. Control of invasive and non-native plants at the KIP site will be ongoing during the development of the Keeyask Generation Project.



Wood frog



Greater yellow legs

Frogs

The KIP was constructed through an area of wetlands and forest used by frogs. Monitoring occurred in 2012, 2013 and 2014 in areas where frog breeding habitat could have been affected by the KIP construction activities. Boreal chorus frogs and wood frogs were observed during monitoring and results show that the KIP did not have any measurable effect on frogs.

Two ponds used by frogs were affected by the KIP. One pond was in-filled by the Project and one pond was temporarily affected by sediment from construction activities in 2013. By 2014, the pond where sediment levels were elevated, had recovered and it was recolonized by frogs.

Birds

Pre-clearing Surveys

Nesting birds are protected under provincial and federal laws. Pre-clearing nest surveys were conducted in the KIP areas where clearing could potentially occur during the bird nesting season (between April and August), with the understanding that if any active nests were discovered in an area, clearing would not proceed there. While the majority of clearing for the KIP took place outside the nesting period for birds,

pre-clearing nest searches were conducted in one quarry area during May and July 2012. Because active bird nests were identified during both of these searches, the clearing in the quarry area was rescheduled to the fall when birds would no longer be nesting.

Breeding Birds

Surveys for breeding birds took place in 2012, 2013 and 2014 in areas near the start-up camp, main camp and adjacent to the access road right-of-way. In 2013, a forest fire prevented sampling in some locations.

Results in 2012 indicated fewer numbers and variety of breeding birds around the construction area when compared to areas further away from construction. During monitoring in 2013 and 2014, there was no observed difference in the number and variety of birds using areas close to the KIP construction site compared

to sites further away. The lower number of breeding birds around the site in 2012 was attributed to higher noise levels from construction activities occurring at that time.

Bird Species at Risk

Between 2012 and 2014, audio recording units were placed in the KIP study area to monitor for the presence of bird species at risk. Four species at risk were identified: common nighthawk, olive-sided flycatcher, rusty blackbird and horned grebe.

Results show common nighthawk, olive-sided flycatcher and rusty blackbird were using habitats close to active construction areas. One horned grebe was observed on a small wetland located along the north side of the access road. From this monitoring, it appears that these species were not deterred from suitable habitat in the vicinity of the KIP construction activities.



Belted kingfisher nest in a quarry



Caribou migrating through the KIP area

Owls

Owl surveys were conducted in April 2012, 2013 and 2014 to determine if the KIP was having an impact on the birds. The surveys took place at night, when owls are active, and any owls observed or recorded were counted. A total of twenty owls made up of three different species (the boreal owl, great horned owl and great gray owl) were counted over the three years of monitoring. Owls were found in slightly higher numbers along the access road than at sites located outside of the area of construction. This could be due to increased feeding opportunities in newly cleared areas. Based on the results of monitoring, there were no unexpected effects on owl abundance or distribution caused by the KIP.



Installing a trail camera to monitor mammal use of area

Mammals

Caribou

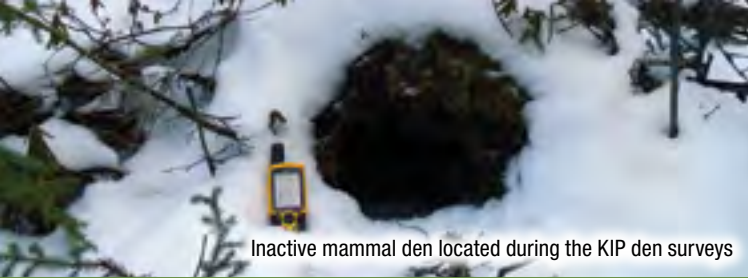
During the environmental assessment of the KIP, it was predicted that caribou would be affected by the KIP construction. To measure this, caribou were monitored using ground tracking and trail cameras between May and September in 2011-2014. The results showed that caribou appeared to be avoiding areas of previously suitable habitat adjacent to the access road, showing that construction activities had likely caused a temporary displacement of caribou in these areas. It is important to note the forest fire in summer 2013 had an impact on the monitoring results, both due to a loss of many of the trail cameras and associated data in the fire, as well as a loss of habitat used by caribou for calving and rearing their young. The large effect of the fire on caribou habitat near the Project makes determining the extent of the effect caused directly by the KIP difficult, if not impossible.

In January 2013, prior to the fire discussed above, a large group of caribou was reported in the KIP area. An initial reconnaissance aerial survey, covering 376 km² north and south of the KIP, was carried out at the end of January 2013 and over 7,700 caribou were counted, most of which were found over 1 km from

the KIP access road. A second, more detailed aerial survey took place in February, which covered an area of 8,400 km². Data from this survey was used to determine an estimate of almost 14,000 caribou occupying the larger Keeyask area in early February 2013. The caribou were determined to be from the Pen Islands herd (using DNA analysis of caribou droppings). There were no mortalities of caribou at the KIP site during construction.



Caribou swimming between islands



Inactive mammal den located during the KIP den surveys

Moose

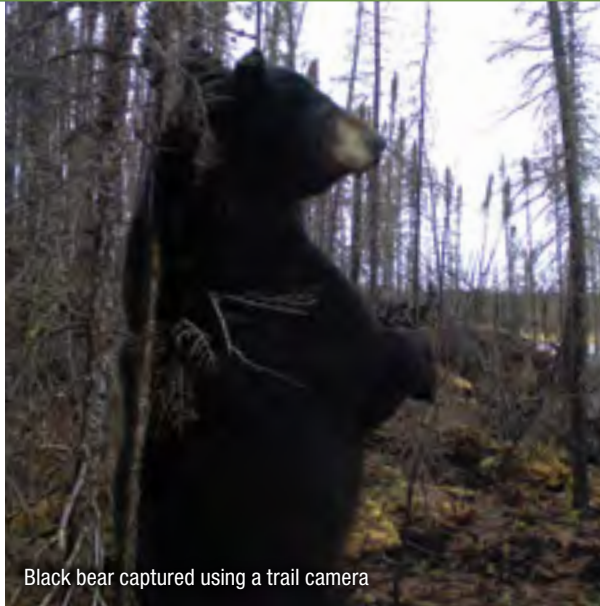
Moose tracking surveys took place annually between 2012 and 2014. Although the tracking work was primarily focused on moose, signs of black bear and gray wolf were also collected.

Results indicated that in areas north of the access road, moose activity declined substantially from that observed in 2011. It also declined slightly in areas south of the access road. Despite this, moose remain plentiful in the surrounding region.

As noted on page 9, there were two KIP-related vehicle collisions with moose, with one moose killed following a collision with a truck on the access road.



Moose photo captured using a trail camera



Black bear captured using a trail camera

Black Bears and Gray Wolves

Both black bears and gray wolves rely on dens for birthing, rearing of young, and hibernating. Bear den surveys took place annually in the fall from 2011 to 2013, and a wolf den survey took place in spring 2012, to prevent disturbance of occupied dens. No active bear or wolf dens were located during the KIP den surveys.

Although both black bears and gray wolves are known to occur in the KIP area, monitoring found few signs of either animal during the construction of the KIP.

Vegetation Rehabilitation

All affected project areas under the Keeyask Infrastructure Project will be rehabilitated as part of the Keeyask Generation Project.

Socio-Economic Monitoring

The Keeyask Infrastructure Project's socio-economic monitoring provided a means to examine the Project's effects on key components of the socio-economic environment, including both indirect and direct effects.

Economic Monitoring

Economic monitoring includes monitoring of employment and training, business, and income outcomes from the KIP.

Factors that influence the economy are categorized as having a direct, indirect or induced impact. Direct impacts are the initial Project expenditures and refer to employment, purchases and income generated by the Project itself. Indirect impacts refer to the

employment, purchases and income created in other industries as the effects of project expenditures work their way through the economy. For example, there are indirect impacts on businesses supplying materials and equipment to companies in the direct impact segment. Induced impacts are created by additional income and profits earned by workers and company owners associated with the Project directly or indirectly. This additional income leads to more spending on food, housing, entertainment, transportation, and all of the other expenses that make up a typical household budget. Adding up the direct, indirect and induced impacts results in the total economic impact of the Project.

The KIP influenced the Manitoba economy by providing employment (creating labour income) and through the purchase of goods and services required to build the Project. In turn these expenditures resulted in incremental provincial tax revenues and contributions to the provincial gross domestic product (GDP).

The following sections discuss the major direct economic impacts of the Project from the beginning of construction in January 2012 to July 31, 2014. Major direct economic impacts of the KIP included employment, purchases and labour income as noted in the following table.

Major Direct Economic Impacts

Major Economic Components	Total
Direct employment (person-years)	552 ¹ (368 ²)
Direct project purchases (\$ Millions)	\$302.6
Direct labour income (\$ Millions)	\$49.1

¹ This number is used for economic comparison purposes and is based on person years in terms of a 2 000 hour per year basis.

² This number is used for construction planning purposes and is based on person years in terms of 3 000 hour per year

Hauling material down the access road





Food services staff



Worker preparing ground for concrete at main camp

Employment

The objective of monitoring employment opportunities is to determine the overall employment outcomes of the KIP construction, with particular emphasis on Aboriginal and northern resident participation in employment.

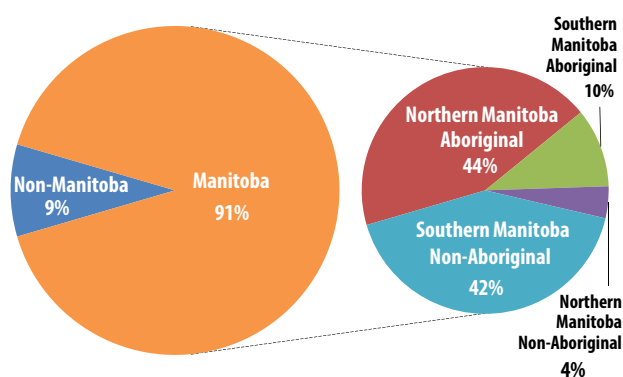
Employment can be measured in different ways, including hires, employees and person-years. Hires refer to the number of people hired for any duration at the Project site. One individual may be hired more than once (for example, for different contracts) and each hire is recorded separately. However, when part-time and/or seasonal workers are hired, it is useful to standardize the hires in terms of person-years of employment.

A person-year of employment is defined as one full-time position for one year. This usually means about 2,000 hours of work per year using a standard 40 hour work week in most industries, whereas for the KIP construction work, a person-year of employment represents 3,000 hours of work per year. The person-years of employment are shown both at the 2,000 hours of work per year, for economic comparisons to other industries, as well as 3,000 hours (identified in brackets) of work per year. Information on hires, employment and person-years is provided in this report.

Person-years of employment

From the start of construction on January 1, 2012 to July 31, 2014, direct employment because of the KIP totalled 552 (368) person-years of employment. Of this, 91%, or 502 (335) of these person-years represent people already living in Manitoba. Northern Manitobans represented 48%, or 240 (160) person years; Aboriginal employment represented 54%, or 271 (171) person-years; Northern Manitoba Aboriginal employment represented 44%, or 219 (146) person-years; northern Manitoba non-Aboriginal represented 4%, or 21 (14) person-years; and Southern Manitoba non-Aboriginal represented 42%, 210 (140) person-years of the Manitoba employment.

Total Person Years of Employment Breakdown

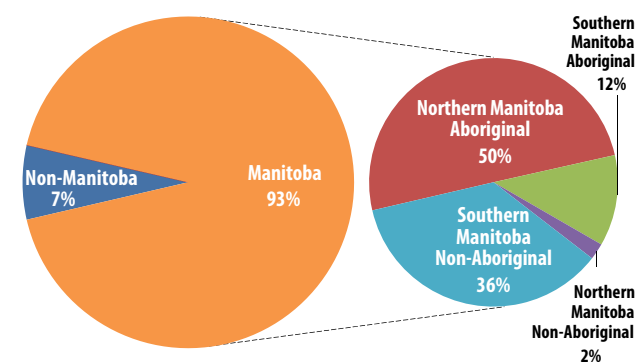


Hires

From the start of construction in January 2012, there were 1758 hires on the Keeyask Infrastructure Project. Of the total hires, 1631 or approximately 93% were Manitobans. Total Northern Manitoban, Aboriginal, and non-Aboriginal hires represent approximately 52% (852 hires), 62% (1010 hires), and 38% (621 hires), respectively, of Manitoban hires.

The breakdown of total Keeyask Infrastructure Project hires is as follows:

Breakdown of Hires





Total hires by job classification are provided in the table below.

Total Hires by Job Classification

Classification	Total Hires	Percentage of Total Hires
Labourers	232	13%
Security Guard	35	2%
Crane Operators	6	<1%
Equipment Operators	381	22%
Teamsters	271	15%
Carpenters	93	5%
Painters	<5	<1%
Glassworkers	<5	<1%
Floor Covering Installers	<5	<1%
Insulator Workers	23	1%
Lathing and Drywall	22	1%
Cement Masons	11	1%
Sheet Metal	5	<1%
Roofers	10	1%
Sheeters, Deckers and Cladders	14	1%
Boilermakers	5	<1%
Iron Workers	38	2%
Rodmen	7	<1%
Electrical Workers	43	2%
Plumbers and Pipefitters	32	2%
Sprinkler System Installers	<5	<1%
Office and Professional Employees	148	8%
Caterers	116	7%
Elevators Constructors	<5	<1%
Other*	250	14%
Total Hires	1758	100%

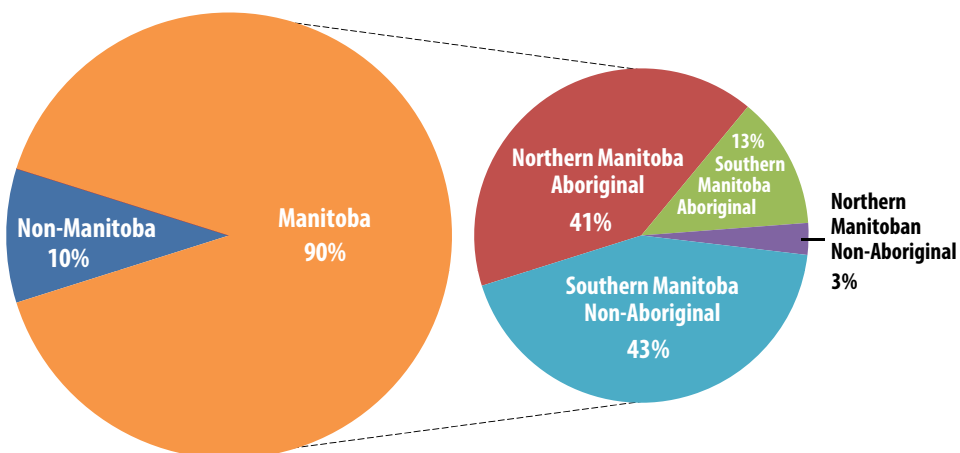
Individual Employees

A total of 1090 individual employees were hired on the KIP. Of this, 90% (981 individual employee hires) were Manitobans.

The breakdown of total KIP individual employees can be seen in the graph below.

The total number of employees is less than the total number of hires because the same individual may have been hired more than once. The difference of 668 identifies the number of re-hires at the Project site.

Breakdown of Employees



* The "Other" category refers to hires in job classifications not covered by the Burntwood Nelson Agreement, i.e. "out of scope" positions. This would include managerial and supervisory staff (both Contractor and Manitoba Hydro), other Manitoba Hydro on-site staff and certain technical staff (engineers and technicians). For employee privacy and confidentiality reasons, categories with less than five hires are shown as <5.



Main camp recreation centre under construction

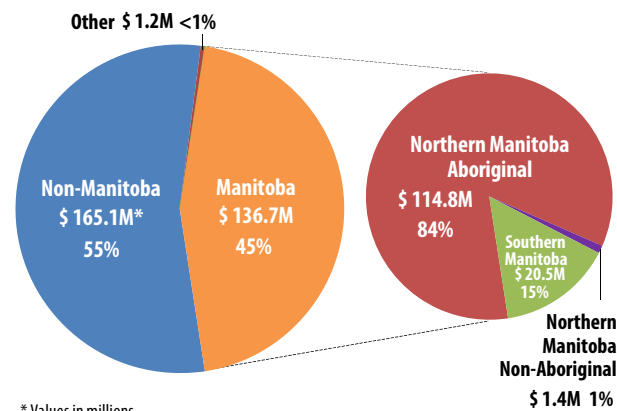
Purchasing

The information provided represents direct purchases of the Project for contractors and services. Indirect purchases made by a contractor, in turn, would include purchases of goods and services from Manitoba based businesses.

Keeyask Infrastructure Project Total Direct Purchases

Region	\$ Millions	Percentage of Total
Manitoba	\$136.7	45%
Outside of Manitoba	\$165.1	55%
Other	\$1.2	<1%
Total	\$302.6	100%

Direct Purchases



* Values in millions

Indirect Employment and Business Opportunities Survey

An indirect employment and business opportunities survey was undertaken near the end of the KIP construction. Manitoba Hydro and partner First Nations' Members conducted surveys of local businesses in Thompson, Gillam and the respective partner First Nations' communities. The analysis covered the period from January 2012 to July 2014, which spans the years of the KIP construction. A total of 31, 13 and 8 business were surveyed in Thompson, Gillam and the partner First Nations' communities, respectively.

Participants, particularly in Thompson, had a generally optimistic outlook for their local economy due to perceived and anticipated economic impact from major projects such as Bipole III and the Keeyask Generation Project. However, the results of the data indicate that almost all respondents had difficulty specifically isolating the effects of the KIP on their businesses because of the overall economic activities occurring in Thompson and the relatively small size of the KIP. While the survey size was much larger in Thompson, given the higher number of businesses, the results were consistent for Gillam and participating partner First Nations as well.

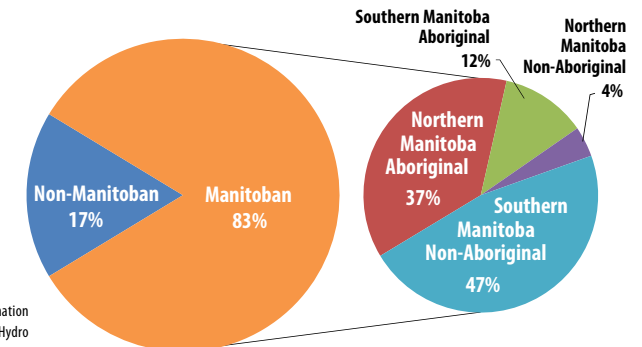
Income

Labour Income

Labour income is an important indicator of the direct economic impact of a project. The estimate of labour income reflects the direct income earned by workers from employment on the Project. It is the sum of wages and salaries associated with direct person-years of employment.

The Project generated \$49.1 million in total labour income. Of this, Manitoba labour income represented \$40.6 million or approximately 83% of total labour income. Of total Manitoba labour income, Aboriginal labour income represented approximately \$19.9 million (49%), northern Manitoba Aboriginal labour income represented approximately \$15.1 million (37%), northern Manitoba non-Aboriginal represented approximately \$1.7 million (4%), and total Manitoba Non-Aboriginal represented \$20.7 million (51%).

Total Project Labour Income Breakdown



Labour income is calculated based on information provided by contractors and Manitoba Hydro



Checking-in with security staff at security gate



KIP security gate

Social Monitoring

For the KIP, the largest social effects, if any, were expected to occur around the partner First Nations' communities, Thompson, and Gillam. Engagement between Manitoba Hydro and the partner First Nations' leadership regarding the Project effects was ongoing throughout construction of the KIP through the Partners Regulatory and Licensing Committee (PRLC), which included monitoring-related presentations and discussions. In addition, discussions took place with stakeholders in the partner First Nations' communities, Gillam, and Thompson regarding social impacts of the KIP, with a focus on worker interactions. Manitoba Hydro staff undertook discussions with representatives from the City of Thompson, Town of Gillam, and various Thompson and Gillam stakeholders. Partner First Nations'

Members undertook discussions with local businesses and services in their communities. Given various Manitoba Hydro projects taking place in the area, community representatives and stakeholders found it hard to attribute effects specifically to the KIP.

Worker Interactions

A Worker Interaction Subcommittee was established by Manitoba Hydro as part of a corporate-wide initiative to address anticipated increases in the Gillam area workforce resulting from Keeyask and other Manitoba Hydro projects being constructed in an overlapping timeframe.

The Subcommittee is intended as a forum for information sharing and communication for early identification of potential worker interaction concerns, prevention of issues to the extent possible, and

identification of ways to work cooperatively to address issues as they arise. In addition to Manitoba Hydro, Fox Lake Cree Nation, and the Town of Gillam, other stakeholder members are determined on an as-needed basis.

Traffic and Safety

The access road was built as part of the KIP construction in order to connect PR 280 to the future Keeyask Generating Station site. Access to the road is controlled by means of a security gate at the intersection of the road and PR 280. The gate office is staffed 24 hours a day, seven days a week.

Data collection for the road began on July 18, 2012 by a temporary contractor. A Security Services Direct Negotiated Contract was signed with the Fox, York & Sodexo Joint Venture Company in November 2012, and the company took over data collection in February 2013.

Construction Traffic on the access road, July 18, 2012 to July 31, 2014 for the Keeyask Infrastructure Project

	2012						2013												2014						
Traffic Count (Vehicles)	Jul	Aug	Sep	Oct	Nov	Dec*	Jan	Feb	Mar	Apr	May	Jun	Jul**	Aug	Sep	Oct	Nov	Dec*	Jan	Feb	Mar	Apr	May	Jun	Jul
Total	513	1643	3454	5748	4214	1605	1078	1576	2022	3218	4114	2939	4938	8092	5710	6066	3538	1242	547	643	262	1614	1780	1974	3332
Daily Average	17	53	115	185	140	52	35	56	65	107	133	98	159	261	190	196	118	40	18	23	8	54	57	66	107

*Reduced traffic due to Christmas Leave shutdown. ** Reduced traffic due to fire evacuation - July 3rd to 16th. Source: Manitoba Hydro Note: Vehicles by month, with daily average (July 18, 2012 to July 31, 2014). July 18, 2012 was the temporary security start date.

During the KIP, the access road was used for construction-related traffic only. On average, 94 vehicles per day used the road from July 18, 2012 to July 31, 2014. A summary of traffic on the access road during that period is provided in the table on the previous page.

Cultural Awareness Activities

During construction, various measures were put in place to support the retention of northern and Aboriginal employees at the job site, and to confirm that sensitivity and respect for local culture was maintained throughout the Project. These measures included Aboriginal awareness training for employees and cultural ceremonies marking key construction activities, both of which were delivered under the “Employment Retention and Support Services” (ERS) contract. The scope of the contract was developed jointly between Manitoba Hydro and the Fox and York Keeyask Joint Venture Company who endeavoured to include all of the partner First Nations’ interests.

Throughout the KIP, ERS staff held 26 Aboriginal Awareness training sessions.

Four ceremonies were arranged by ERS staff to mark project milestones. These included two pipe ceremonies for the access road and test ice boom (installed in the river to promote formation of ice cover upstream of the rapids to prevent problems associated with pieces

of ice building up at the Project site), a blessing at the main camp pad, and a stream-crossing ceremony. Prior to the ERS staff arriving on site, the partner First Nations held four site ceremonies to mark milestones at Looking Back Creek, the access road, and at various borrow pits. These included a pipe ceremony, a water ceremony and prayers.



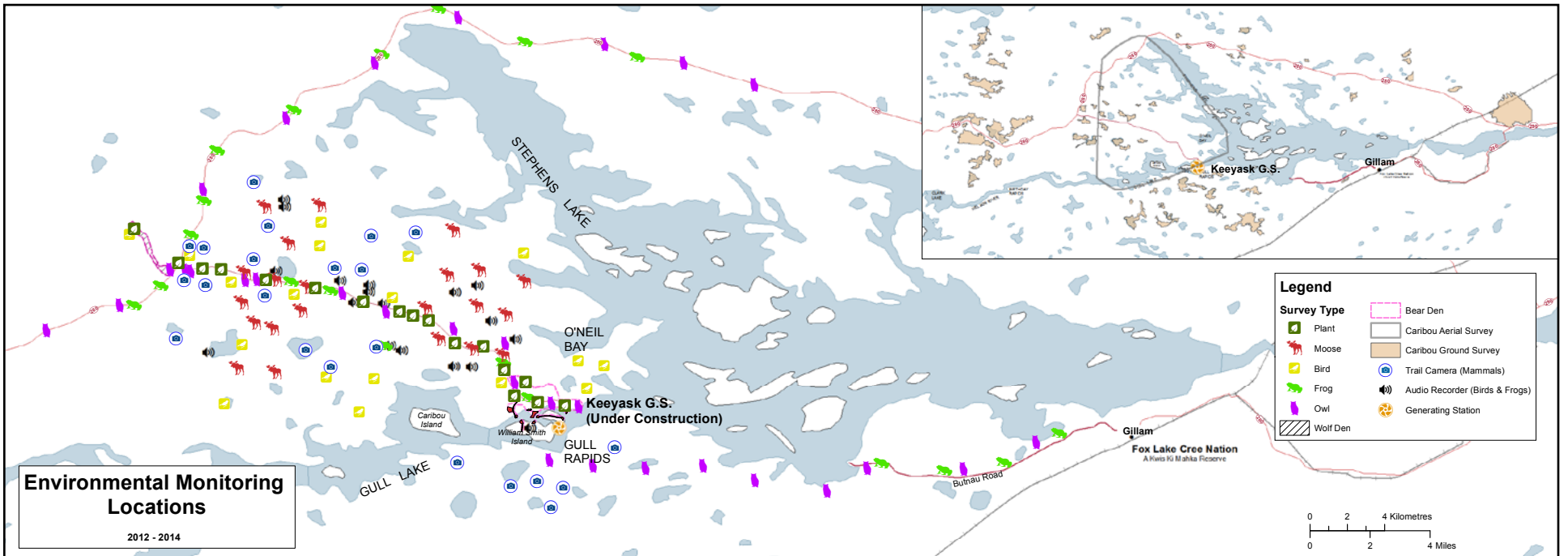
Cultural ceremony marking key Project activity

Heritage Resources Protection Plan

The Heritage Resources Protection Plan (HRPP) set out the Partnership's commitment to safeguard heritage resources and appropriately manage human remains or heritage objects discovered or disturbed during the development of the KIP. No heritage resources or human remains were found during the construction of the KIP.



Shovel testing at the potential startup camp location





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