



Keeyask Generation Project

Year in Review



Keeyask Hydropower Limited Partnership
www.keeyask.com



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KEEYASK

Hydropower Limited Partnership

Keeyask includes three separate projects, the Keeyask Infrastructure Project, the Keeyask Generation Project and the Keeyask Transmission Project. The Keeyask Generation Project (the Project) is a collaborative effort being undertaken by the Keeyask Hydropower Limited Partnership (KHLP or the Partnership) - a partnership between Manitoba Hydro and four Manitoba First Nations: Tataskweyak Cree Nation and War Lake First Nation (acting as the Cree Nation Partners); York Factory First Nation and Fox Lake Cree Nation. The Keeyask Infrastructure Project, which was completed in 2014, was also developed by the KHLP. The Keeyask Transmission Project is being developed by Manitoba Hydro outside of the scope of the Partnership.

The 2009 Joint Keeyask Development Agreement (JKDA) between Manitoba Hydro and the partner First Nations governs how the Project will be developed and sets out understandings related to potential income, training, employment and business opportunities. Manitoba Hydro provides construction, operations and management services to the KHLP and will own at least 75 per cent of the equity of the Partnership. The four First Nations together have the right to own up to 25 per cent of the Partnership and will make their final investments once the station is fully operational.

The Keeyask Generating Station will be a source of renewable energy, providing approximately 695 megawatts of capacity and producing on average of 4,400 gigawatt hours of electricity each year. The energy produced will be integrated into Manitoba Hydro's electric system for use in Manitoba and to export power to other jurisdictions. The generating station is located on the Nelson River approximately 30 kilometres west of Gillam, in the Split Lake Resource Management Area and within the ancestral home land of all four partner First Nations. It is anticipated that the first generator unit will be in-service by August 2021 and that all units will be commissioned in the year following.



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Message from the Board of Directors

The Keeyask Board of Directors is pleased to present the 2017-18 Keeyask Generation Project Year in Review. As you can well imagine, a project of this size and complexity requires constant and diligent effort on the part of all those involved. We would like to recognize these efforts and highlight some of the significant accomplishments over the past year.

During the 2017 construction season, the second of three peak civil construction years, much progress was made and a number of key milestones were achieved:

- More than half of the total volume of concrete required has been placed;
- Spillway concrete has been completed and the Spillway gates, guides and hoists are being installed;
- Enclosure of the Service Bay and Powerhouse Units 1-3;
- Installation of the Powerhouse Cranes in the Service Bay and Unit 1 and 3 draft tube liners; and
- Significant progress on the earth structures.

The Partnership is pleased to support local northern businesses. To date, 65 per cent of Manitoba expenditures on goods and services were purchased from northern Indigenous businesses. This includes 18 Direct Negotiated Contracts (DNCs) on the Keeyask Infrastructure and Generation Projects worth over \$500 million awarded to the partner First Nations ranging from the provision of camp services to heavy construction. These contracts are being successfully executed and are integral to the success of the Project.

Providing employment and training opportunities to northern Indigenous workers is an important priority for the Partnership. Since the start of the Generation Project construction, 36 per cent of individuals employed on the Project have been Indigenous and nearly half of those are from partner communities. Although the employment of the partner First Nations has been positive, we will continue to make concerted efforts to recruit and retain Indigenous employees and maximize partner First Nation opportunities until the end of Project construction and into the operational phase.

In addition to providing employment opportunities, there is also a responsibility to ensure that all employees enjoy a respectful work environment. The Board and all Project team members are committed to these principles. We are pleased to report that most of the recommendations of the Keeyask Workplace Culture Assessment (KWCA) report were implemented this year, including: revisions to the Respectful Workplace Standard at site; providing workers with workplace related concerns with the ability to get assistance from a “trusted advisor”; and developing a Keeyask site Respect Campaign to address discrimination and harassment and to create a more positive workplace environment. We continue to monitor the outcome of the implementation of the above recommendations. Although much has been done to promote and enforce a workplace free of harassment and discrimination, the Partnership recognizes that there is more to do. We continue to work together to find solutions to these complex and challenging issues.

The health and safety of all employees is a top priority for the Keeyask Hydropower Limited Partnership. The goal of everyone on the Project is zero injuries. This year, there were only three lost time injuries –that is quite remarkable given that 6.6 million person hours were worked at the Project site. In August 2017, a Nurse Practitioner Clinic was opened onsite within the Emergency Medical Services area providing an important addition for the health care available to workers.

Aboriginal Traditional Knowledge (ATK) and technical science monitoring programs are being used to verify the predictions made in the Environmental Impact Statement and assess the effectiveness of mitigation measures described in the Partnership’s Environmental Protection Program. Each of the four partner First Nations is leading its own ATK monitoring programs consistent with their own priorities and vision. Manitoba Hydro and the four communities are working together to share knowledge and understandings of impacts from both the ATK and technical science monitoring programs. One of the key mitigation measures for the Project, Lake Sturgeon stocking, is showing early signs of success. This was the fourth year of stocking and through monitoring, it was observed that fish reared at the Grand Rapids Fish Hatchery are successfully living in the wild.

We are proud of the significant efforts and the accomplishments of the past year and would like to thank everyone for their contribution towards the success of the Project. We are confident that production improvements achieved at the construction site and the concerted efforts to deal with workplace challenges have permitted us to hit our stride as we approach the halfway mark of the Project.



KHLP Board members

Back Row left to right: Nathan Neckoway (Tataskweyak Cree Nation), Richard Goulet (Manitoba Hydro), John Kreml (Manitoba Hydro), Lorne Midford (Manitoba Hydro), Sandra Nabess (Fox Lake Cree Nation), Jamie McCallum (Manitoba Hydro), Anthonie Koop (Manitoba Hydro), Jeffrey Betker (Manitoba Hydro).

Front Row left to right: Liz Carriere (Manitoba Hydro), Chief Betsy Kennedy (War Lake First Nation), Chief Doreen Spence (Tataskweyak Cree Nation), Vicky Cole (Manitoba Hydro).

Missing from photo: Louisa Constant (York Factory First Nation)

2017-18 Keeyask Generation Project – Year at a Glance



Kelly Spence (TCN) and Faith McDonald (NCN) who are part of the Emergency Medical Services Joint Venture on-the-job training program



Spillway concrete complete and installation of mechanical parts underway



Powerhouse construction

Construction

In 2017-18, almost 90,000 cubic metres (m³) of concrete was placed, and to date, more than half of the total volume of concrete required for the Project is in place. Over 1.2 million m³ of material for the earth structures was also placed. Both of these accomplishments were large improvements over 2016, but despite the improvements, the target quantities for concrete and earthwork material were not achieved.

Key milestones were achieved on schedule including: completion of the Spillway concrete work; start of the Spillway gates, guides and hoists work; enclosure of the Service Bay and Units 1 to 3. The Project team is tracking to meet the control budget of \$8.7 billion and have the first unit in-service before August 2021. Meeting the control budget is contingent on 10 per cent improvement in performance by the General Civil Contractor and no major risks occurring to delay the schedule.

There were more than 6.6 million person hours worked at the Project site over the past year. There were three lost time injuries in the year. This is less than half the number experienced in each of the previous two years even though the total number of person hours worked in 2017-18 was higher than in past years.

In August 2017, a Nurse Practitioner Clinic opened onsite to provide medical services for workers while away from home. The onsite clinic has reduced the number of non-urgent visits to the Gillam hospital.

Employment and Business Opportunities

Thirty-six per cent of the total number of individuals employed on the Project were Indigenous. Eighteen Direct Negotiated Contracts (DNCs), with a total value of over \$500 million, were awarded to partner First Nation businesses on the Keeyask Infrastructure and Generation Projects, ranging from camp services to heavy construction. Sixty-five per cent of Manitoba expenditures on goods and services were purchased from northern Indigenous businesses.

Over the past year, efforts were made to reach out to members in the partner First Nation communities to encourage increased interest in working on the Project. Additional efforts focused on making it easier for northern Indigenous workers who want to enter apprenticeships, filling open, on-the-job training opportunities for both designated and non-designated trades, and maintaining the partner First Nations' peak employment numbers achieved over the 2016 construction period.

An important milestone was achieved in the summer of 2017, when two million Keeyask Cree Nations (KCN) labour hours and four million Indigenous hours had been worked on the Project. This achievement was acknowledged at a celebration held on August 2, 2017.



Members from TCN, FLCN and MH Environment team at Kahpowinac Bay House (HbKv-07) excavation

To provide a respectful work environment, all recommendations from the Keeyask Workplace Culture Assessment (KWCA) report have been reviewed and are being implemented, where feasible. Examples of measures taken to address the recommendations include: revisions to the Harassment and Discrimination Free Workplace Standard and the implementation of a Keeyask Site Respect Campaign. While substantial efforts have been made over this past year to promote a positive and respectful workplace, efforts will continue for the duration of the Project.

People and the Environment

The partner First Nations have raised concerns that the Project is contributing to an increase in the presence and use of drugs and alcohol in the region and possible cases of sexual exploitation. Discussions took place, and are ongoing, about what assistance can be provided to the communities to mitigate any potential increase in drug and alcohol use associated with the Project and what can be done to address concerns about sexual exploitation.

All four partner First Nation communities developed and are implementing their ATK monitoring programs. Each individual program has been developed to reflect the community's values, vision and priorities. Activities under the ATK monitoring programs have been diverse, with examples including land based site specific



A grouse walking through a planted jack pine seedling area

monitoring camps, caribou monitoring with resource harvesters, heritage activities and cultural camps that provide an opportunity for youth to learn from Elders and resource users, and shadowing science monitoring activities.

In June and July 2016, more than 250,000 jack pine and black spruce seedlings were planted in disturbed areas, primarily in borrow pits along the North Access Road. Surveys took place in 2017 to evaluate how the trees were growing. Based on the surveys, all the black spruce seedlings were alive and the jack pine seedlings had a 96 per cent survival rate after the first year.

Lake Sturgeon stocking has taken place for four years and the success of the program is being evaluated through the juvenile Lake Sturgeon monitoring program, which takes place each fall. In 2017, 75 sturgeon that were hatched and raised for one year at the Grand Rapids Fish Hatchery were found in the wild, and nearly 45 per cent of these were three and four years old. Also in 2017, wild sturgeon that hatched in the spring of 2017 were captured in Gull and Stephens lakes, which indicates there was successful spawning that occurred during construction.

Community members, including students, are able to participate in this important mitigation measure by taking part in the Lake Sturgeon stocking events. Members were able to hold and release individual fish into Stephens Lake and the Burntwood River in 2017.



Elders Sophie Lockhart and Catherine Beardy (FLCN) at a Lake Sturgeon stocking event at the Butnau Marina in June 2017

The Partnership

The Keeyask Hydropower Limited Partnership will own the Keeyask Generating Station. The Partnership consists of the General Partner (5900345 Manitoba Ltd.), Manitoba Hydro and partner First Nations investment entities. The General Partner is a wholly owned subsidiary of Manitoba Hydro and is responsible for managing the business of the Partnership and is liable for all of its debt.

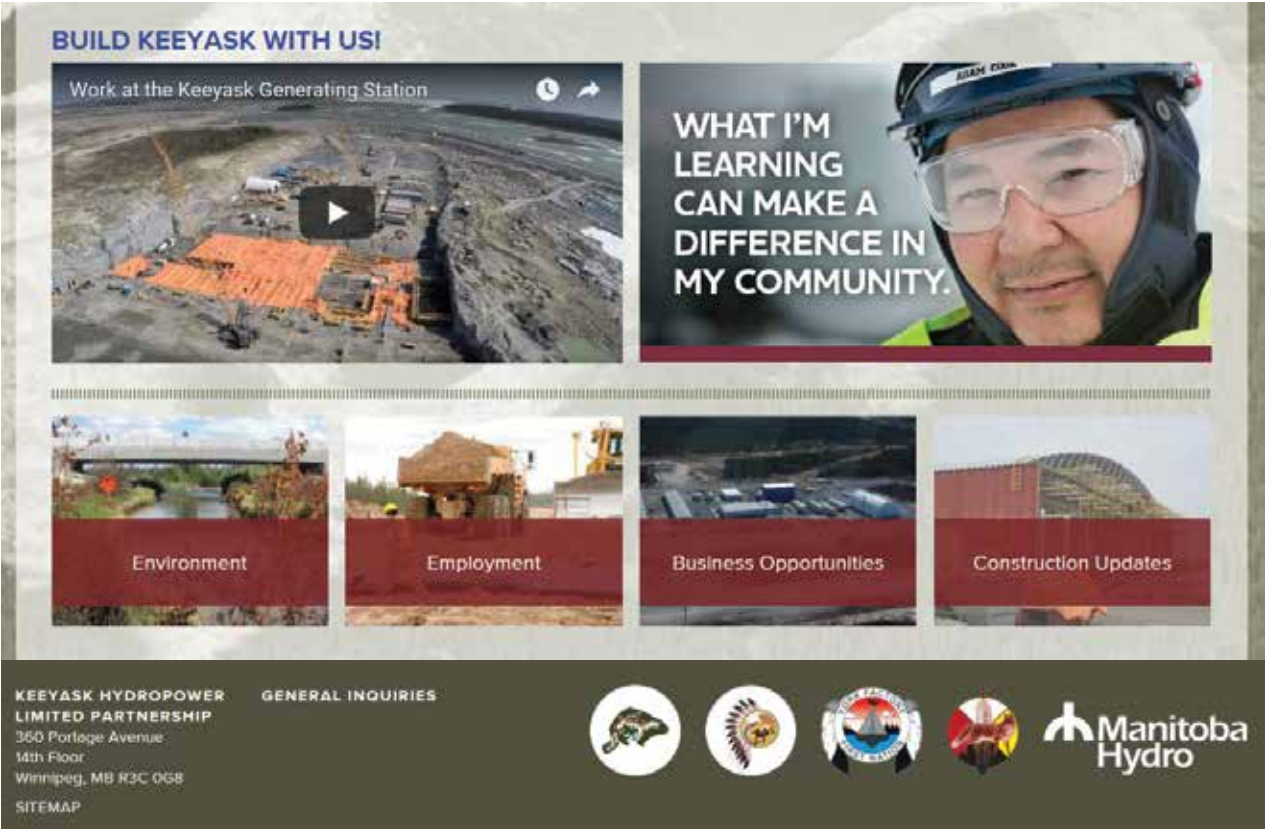
Pursuant to the JKDA, Manitoba Hydro has been contracted to construct, manage, operate and maintain the Keeyask Generating Station. Manitoba Hydro, carrying out its duties as the Project Manager, has contracted for nearly all work required to build the Project. Several construction services, labour and materials contracts have been directly negotiated with the partner First Nations; the general civil, electrical and mechanical contracts were publicly tendered.

Manitoba Hydro, the General Partner and each of the partner First Nations investment entities have made initial investments in the equity of the Partnership. Manitoba Hydro and the General Partner will own at least 75 per cent of the equity and the partner First Nations, through their respective investment entities, can own up to a total of 25 per cent.

The business affairs of the KHLP are carried out by the General Partner. The General Partner is governed by a Board of Directors, which consists of seven Manitoba Hydro and five partner First Nations representatives. The Board meets quarterly and its inaugural meeting was held in December 2014. In addition to the Board, three formal advisory committees exist for the

Project – a Monitoring Advisory Committee (MAC) to review the outcomes of environmental mitigation and monitoring; a Construction Advisory Committee (CAC) that reviews the status of construction activity; and an Advisory Group on Employment (AGE) to discuss construction employment at the site. These committees are made up of members from

the partner First Nations and Manitoba Hydro. They have met on a regular basis since late fall 2014. The three committees meet as one group on an annual basis to learn about the work undertaken by each committee over the past year. This All-Committee meeting is held in conjunction with the Limited Partners annual general meeting in September.



Keeyask.com: The Partnership website features current information about the Project

Construction Advisory Committee

The Construction Advisory Committee (CAC) is a forum to share information and to discuss construction activities related to the Project. It meets regularly to review construction updates on current and upcoming construction activities related to the Project. The CAC provides a discussion forum for all Partners, and a mechanism for committee members to keep their respective communities informed about construction progress and activities.



Construction Advisory Committee members from left to right: Marie Ryle-Beardy (YFFN), Elizabeth Beardy (TCN), Lillian Spence (WLFN) and Sheldon Collins (MH) witness the installation of the first draft tube liner.

By having the meetings at site, CAC members are able to see first-hand the progress of construction through tours conducted by the Site Liaison team. During 2017, site tours included the concrete batch plant, observing concrete work on the Spillway and Powerhouse, and witnessing the installation of the first draft tube liner.

At the CAC meetings in 2017, members were also given presentations on a variety of topics including 4D construction models, the critical path for concrete placement, contractor work at site and information on the Employee Retention and Support Services (ERS).



Construction Advisory Committee

Back Row left to right: Johnny Saunders (YFFN)), Michael Cobb (WLFN Advisor), Corine Spence (MH), Gary Garson (TCN), Conway Arthurson (FLCN advisor), Bobby Beardy (TCN). Front Row left to right: Brenda Froese (MH), Donna Saunders (YFFN), Elizabeth Beardy (TCN), Chief Betsy Kennedy (WLFN).

Missing from photo: Robert Garson (TCN), Leroy Spence (TCN), Dwayne Flett (WLFN), Roy Ouskun (WLFN), Noah Massan (FLCN), Joanne Lavallee (FLCN), Jimmy Beardy (YFFN), Marie Ryle-Beardy (YFFN), Jake Quiring (YFFN Advisor), Leah Macdonald (MH), Barry Nazar (MH), Vince Kuzdak (MH), Dave Little (MH).

Monitoring Advisory Committee

The Monitoring Advisory Committee (MAC) meets six times per year, normally in Thompson, and provides a forum to share social and environmental information and discuss topics from both technical science and ATK perspectives. Over 2017-18, all four partner First Nation communities were busy with their ATK monitoring programs, and each brought forward perspectives and learnings gained from their program activities that occurred in the communities and at the Keeyask site. Over this past year, the topic of caribou provided the MAC with the opportunity to explore how ATK could be overlaid with technical science information. YFFN shared its methodology for monitoring and mapping caribou observations, including their discussions with resource users, and discussions occurred on how this could be integrated with western science information going forward.

Detailed presentations on a variety of topics were given at meetings to gain a greater understanding of the Project’s environmental issues including: mercury and human health fish consumption guidelines; the hydroelectric system operations; and waterfowl monitoring. Presentations on topics of interest are now a regular part of the MAC meetings.

As a result of discussing the monitoring and mitigation associated with Lake Sturgeon, the MAC recommended that a ceremony be held to mark the loss of spawning habitat caused by the Project. The event was held in August 2017.

Also, based on partner First Nations’ concerns about hydrocarbon and other spills on the Project site, a modified and more timely means for sharing information on spills of concern to regulators was established.

Three open houses were held in early 2018 in the partner First Nation communities. The open houses were attended by students, resource users and Elders and environmental information about the Project was shared.



Monitoring Advisory Committee

Back row left to right: Matt Hunt (WLFN advisor), Lillian Spence (WLFN), Russ Schmidt (MH), Kathy Wavey (WLFN), Elly Bonny (YFFN advisor), Roy Redhead (YFFN), Conway Arthurson (FLCN advisor), Kurt Fey (MH), Joseph Harvey (TCN), Diana Mager (MH)

Front row left to right: Jodine MacDuff (MH), Donna Saunders (YFFN), Vicky Cole (MH), Jimmy Beardy (YFFN), Craig Saunders (YFFN), Carolyne Northover (MH), Elizabeth Beardy (TCN)

Missing from photo: Laura McKay (MH), Robert Spence (TCN), Sarah Cole (TCN), Robert Garson (TCN), Dwayne Flett (WLFN), Roy Ouskun (WLFN), Val Massan (FLCN), Joanne Lavallee (FLCN)

Advisory Group on Employment

The Advisory Group on Employment (AGE) is a forum for addressing employment-related issues, in particular Indigenous employment, related to the construction of the Project. The AGE committee has created a collaborative environment for interaction, fact finding, and developing solutions to issues that are raised and includes representatives from the Province of Manitoba, contractors, Manitoba Hydro, the Hydro Projects Management Association, Allied Hydro Council and the partner First Nations. Over the past year, an emphasis has been placed on reducing the obstacles for northern Indigenous workers to enter apprenticeships and to fill open on-the-job training opportunities. The aim for the improved process is to maintain the partner First Nations’ peak employment numbers achieved in 2016 and to have more Indigenous workers trained for future job opportunities beyond Keeyask.

Job Seeker Managers (JSMs) are based in each of the four partner First Nations and are supported by the Province of Manitoba, the Thompson Job Referral Service (JRS) team and Manitoba Hydro. Each JSM is responsible for developing an annual community employment plan. All four plans are unique, but also have common goals including improving the ability for employers to make contact with members and ensuring that members’ qualification profiles are up to date. In addition, Keeyask Cree Nations (KCN) site Representatives (Reps) support the JSMs, and help contact community members referred for a job or for an open training opportunity.

The JSMs and Province, with support from Manitoba Hydro, continue to work on what the AGE committee has identified as a key factor to increasing the partner

First Nation workforce on the Project, which is reducing the number of job seekers who cannot be contacted. Several strategies are being used to ensure registration contact information is up to date such as: career counseling, community based employment sessions and assisting with updating candidate profiles. Additional methods of contacting candidates have been used including: emails; cellular texts; phone calls

during weekends, holidays and the time preferred by job seekers; Facebook postings; and Messenger texts. The Province, in partnership with Manitoba Hydro, and the JSMs has made every attempt to contact every partner First Nation member registered with the JRS to update their contact information.



Advisory Group on Employment

Back row left to right: Vanessa Beardy (FLCN), Pamela Beardy (FLCN Advisor), Jessie Lavallee (FLCN), Leah Garson (MET), Chris Bignell (MET), Danielle Beardy (ERS), Ashlynn Mayham (TCN), Sonya Dhami (BBE), Claude Courchesne (Voith), Martha Lee Riopel (Voith), Michael Cobb (WLFN Advisor), Jake Quiring (YFFN Advisor), Keri Orbeck (Voith), Troy Smith (NMS), Connie O’kurley (Sodexo), Brian Finch (Sodexo), Edna Beardy (AHC), Ron Castel (AHC), Aarti Sharma (AHC), Carl Johnson (Amisk)

Front row left to right: Craig Saunders (YFFN), Richard Goulet (MH), Kathy Wavey (WLFN), Elizabeth Beardy (TCN), Jackie Lagimodiere (MET), Roy Ouskun (WLFN), Tim Johnson (MH), Sudhir Sandhu (AHC), Lidet Getachew (HPMA), Dave Little (MH), Vince Kuzdak (MH)

Missing from photo: Chief Betsy Kennedy (WLFN), Sarah Cole (TCN), Gary Garson (TCN), Evelyn Beardy (YFFN), Wendy Saunders (YFFN), Wade Pluchinske (Amisk), Kris Remillard (Canmec), Kelly Bryll (MH), Ian Blouw (MH) Todd Smith (BBE), Monica Genaille (BBE)

In February 2018, partner First Nation job seekers, who had not previously worked at Keeyask, attended a two day Site Orientation session. To accommodate demand for the event, two separate sessions were held between February 5 to 8 and February 12 to 15. The 17 attendees had the opportunity to experience the Project first-hand, learned more about employment and training opportunities from the contractors, and found out what it is like living and working at Keeyask. Attending community members showed great interest in learning more about Keeyask and becoming employed on the Project.

Partner First Nations’ members have been given the opportunity to sign up to the Keeyask Engagement Project (KEP) Referral List. Maintained by the Province of Manitoba, the KEP Referral List identifies an individual’s current trade and level, and preferred trade(s) of interest. The KEP Referral List is distributed regularly to contractors to direct hire individuals into training and apprenticeship opportunities prior to posting a job order through the JRS. Use of the KEP Referral List for hiring has received positive reviews from both contractors and job seekers and has proven to be successful in identifying and filling training and apprenticeship positions in an expeditious manner.

The Keeyask Workplace Essential Skills Training (KWEST) Centre, was established onsite in August 2016. The goal of KWEST is to provide new and existing workers access to skill development support, to enhance their capacity to participate in on-the-job training, to carry out workplace tasks effectively and efficiently, and to prepare for advanced training and employment opportunities. Essential skills assessment,



Photos on top and below: KCN Member Site Orientation Participants in February 2018

administered by Workplace Education Manitoba, establishes the candidate’s development plan for the trade they are in or are interested in pursuing. The tool allows the trainer and student to address skill gaps through tutorials and small group sessions which are provided at the Centre. Contractors are also using the service to deliver targeted training in support of their skill development program for their workforce. Since its inception, KWEST has provided services to over 230 clients who have benefited from the support and ongoing instruction offered through KWEST.



Site Liaison

The Site Liaison team consists of the Site Liaison Lead, two liaison officers and a KCN site representative from each of the partner First Nations communities. The liaison team supports collaboration with the four partner First Nations and the site contractors with a high emphasis on employment and training opportunities, as well as cultural activities. The team also works with the Employee Retention Support Services (ERS) team where the focus has been on providing support to all Project workers.

The KCN Site Reps reached full complement in 2017. Over the past year, Manitoba Hydro site liaison staff have worked closely with the KCN Site Reps to engage community members in employment and training, support community JSMs, and facilitate improved communication with partner First Nation workers at site.

The Site Liaison team helps coordinate and attends the monthly CAC meetings held at the Keeyask site, and attends the quarterly AGE meetings. Site Liaison representatives also participate in the MAC meetings and the open houses where updates on environmental monitoring activities are provided to community members. Site Liaison also played a key role in the delivery of the community engagement sessions that AGE has held.



Shelden Collins, Kimberly Kelly and Vince Kuzdak - MH Site Support staff wearing 'Respect' t-shirts



KCN Site Reps from left to right: Kathy Wavey (WLFN), Craig Saunders (YFFN), Elizabeth Beardy (TCN). Missing from photo FLCN KCN site rep

Keeyask site tours continue to be popular as the Project gains momentum and employment/training opportunities and initiatives increase. A variety of individuals and groups expressed interest in coming to site to learn about the Project. Requests for site tours came from many groups, including: schools and training centres in northern Manitoba, members of the partner First Nations, the Project committees, and various Manitoba Hydro departments. The Site Liaison team coordinated forty-seven tours, which included 333 visitors to site.

The Site Liaison Team is an essential resource for communications and logistics needed at site to ensure success.

Keeyask Workplace Culture

The KHLP is committed to creating a respectful workplace culture for all employees at the Project site. Achieving this goal is the responsibility of everyone involved in the Project. In the fall of 2016, a consultant was contracted by the Board to independently review the Project site’s workplace culture. This was in part to address discrimination and harassment concerns, and to provide recommendations that would create a better work environment.

The independent Keeyask Workplace Culture Assessment (KWCA) confirmed that discrimination and harassment exist at Keeyask and that all parties need to implement measures to create a more respectful, positive work environment. The KWCA included 64 recommendations aimed towards improving workplace culture at Keeyask and to reduce incidents of discrimination and harassment. Sixty-two of the 64 recommendations have been completed. Complete means that the KWCA recommendation has been considered and either acted on or determined not appropriate or feasible at this time.

Efforts are underway to drive a positive culture change at site. These efforts not only focus on implementation, where feasible, of the spirit of the KWCA recommendations, but also on activities that go beyond the KWCA recommendations.

In an on-going effort to create and maintain a respectful and positive Project site, the Harassment and Discrimination Free Standard (previously titled Respectful Workplace Standard) was revised in 2017. The revisions will assist in creating a workplace culture that is positive, respectful, and free of harassment, sexual harassment and discrimination for all who are

present at the Project site. Key revisions to the Standard included a clearer definition of what sexual harassment is; guidance regarding social media/electronic media based harassment; and enhancements to the process of filing a complaint and post investigation follow-up with the claimant. In addition, the Standard now allows individuals filing a complaint to identify a ‘Trusted Advisor’ to participate with them through the process.

A Keeyask Respect Campaign was rolled out at site to encourage positive interactions among all Project workers. The campaign focuses on similarities that employees have in common. Its intent is to encourage positive interactions among all workers at site, and bring awareness to the fact that everyone at site is part of the team and each person is valuable and important to the Project. The Respect Campaign complements the Aboriginal Awareness Training and provides a different workplace focus.

A development and mentorship program was developed by the General Civil Contractor (in collaboration with KCN Site Reps and Manitoba Hydro), and is currently being piloted on-site with partner First Nation members employed at site. The program includes a development planning and performance review process, as well as

talent assessments to ensure that those employees demonstrating technical and leadership abilities are paired with mentors to assist in their career development over time.

Online resources are being developed to assist potential employees interested in working on the Project (and their families) to gain an understanding of the camp rules and life at Keeyask to help prepare them for success when they arrive at the worksite.



A Respect Campaign poster

Construction

Keeyask includes three separate construction projects: the Keeyask Infrastructure Project, the Keeyask Generation Project, and the Keeyask Transmission Project. The Infrastructure Project began in 2012 and was completed in 2014. It included construction of the North Access Road, the Start-up Camp and the first phase of construction of the Main Camp. It provided for a timely and efficient start to the Generation Project.

The Keeyask Generation Project commenced in 2014 and includes the construction of a 695-megawatt (MW) generating station with seven turbine units, a Spillway, dams and dykes to contain the reservoir, the South Access Road, phase II of the Main Camp, and clearing of the future reservoir.

The Keeyask Transmission Project will be wholly owned and operated by Manitoba Hydro and includes three Generation Outlet Transmission Lines, four unit transmission lines, a new switching station, and upgrades to the Radisson Converter Station. Construction commenced in 2014 and will be complete in time to transfer the power generated at Keeyask into Manitoba Hydro’s system.

The control budget for Keeyask is \$8.7 billion. According to the control schedule, the first power will be produced in August 2021.



Keeyask Generation Project

The 2017 construction season was the second of three peak years of civil construction on the Project. Approximately 90,000 m³ of concrete has been placed to construct the Spillway, Powerhouse, Intake, Tailrace and Service Bay between April 1, 2017 and March 31, 2018. The amount of concrete placed increased over the previous year despite the work being more complex. Placements were generally smaller, required more formwork and included more concrete work undertaken higher off of the ground. More than half of the concrete required for the Project has been placed to date.



Loading material for placement on the permanent earth structures

Over 1.2 million m³ of material to build the earth structures was placed over the last year, which was nearly double the volume placed during 2016-17. The material placement was primarily to construct the permanent earth structures, which include the North Dyke, North Dam, Central Dam, and a small portion of the South Dam.

To help keep the Project schedule on track, construction of the South Dyke began in late 2017 rather than in late 2018. A borrow pit was developed at the Ellis Esker, on the south side of the river, to obtain granular material for the construction of the South Dyke. A winter trail was cleared from the South Access Road to the borrow pit location, along an existing exploration trail, to haul and stockpile material during the winter.

Despite the improvements over 2016, the target quantities for concrete and earthwork material, set at the beginning of 2017 between Manitoba Hydro and the General Civil Contractor (BBE), were not fully achieved by the conclusion of the 2017 construction season. While the contractor achieved placement of considerably more concrete and earthwork material than during the previous year, the concrete placed was approximately 20 per cent less than planned and earthwork material placement was 25 per cent less than what was planned for 2017.

A plan for winter concrete placement was made in late 2017 to complete a portion of the concrete work that would otherwise not be achieved as planned by the end of December 2017. The winter plan included concrete placements within the first three units of the Powerhouse. The Service Bay and the first three units of

the Powerhouse were enclosed with a roof and walls by early 2018, which allowed the work area to be heated. Continuing with the concrete work over the winter also allowed for much of BBE's workforce to remain engaged on the Project during the winter months. Maintaining consistent staffing levels over the winter reduces the potential delay of getting enough people in place in time for the peak construction season, which was an issue experienced in previous years. BBE executed the winter concrete work plan, placing more than 9,000 m³ of concrete between January 1 and March 31, 2018. The additional 9,000 m³ of concrete placed over the winter 2018 reduced the placement shortfall to approximately 10 per cent. It is expected that a further 10,000+ m³ will be placed in April 2018 for a total of approximately 20,000 m³ of concrete placed over the winter.

The following key milestones were achieved, as planned allowing the Project to remain on schedule:

- Completion of the Spillway concrete;
- Significant progress on the installation of the Spillway gate, guides and hoists;
- Installation of the two Powerhouse Cranes in the Service Bay;
- Enclosure of the Service Bay and Powerhouse Units 1-3;
- Installation of the Unit 1 and Unit 3 draft tube liners, which are metal liners inserted into the concrete passages (draft tubes) to protect the concrete;
- Significant progress on earth structures (dams and dykes) such that the Project is on track to divert the river through the Spillway in August 2018.



Kendall P. Doerkson (MH) curing concrete



The Powerhouse enclosed with a temporary winter structure (hoarding) for winter work

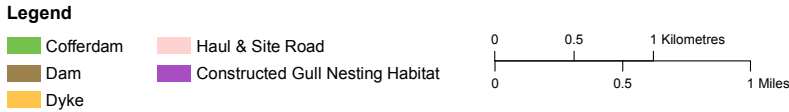
The Powerhouse (foreground) and Spillway (background) under construction



Initial preparation of South Dam Cofferdam on south bank



Infrastructure Completed
July 16, 2014 to March 31st, 2018



Achieving these milestones on schedule in 2017-18 maintains the opportunity for the first turbine (Unit 1) to be put into service earlier than the August 2021 schedule. The goal of the Project is still to meet the \$8.7 billion control budget with Unit 1 in-service earlier than August 2021; however meeting this budget will require approximately a minimum 10 per cent improvement in BBE's performance. This is attainable as it is similar to the year-over-year improvement between 2016 and 2017. Meeting the control budget is also dependent on no significant risks occurring that alter the Project schedule, such as unseasonable weather.



Scaffolding for Scroll Case, May 2017

Work is underway to expand the Keeyask main camp by an additional 152 rooms to accommodate the workforce required in 2018. The main camp contractor returned to site in winter 2018 to begin installation of the additional dorm units. These units will be available to support ramp up of the construction workforce in spring 2018. When expansion to the main camp is complete, the Project site will be able to accommodate over 2,500 workers (this includes accommodations at the Start-Up Camp).

Progress on the Project is made possible by the site services provided by the partner First Nations business ventures, which provide security, Employee Retention and Support Services, Emergency Medical Services, camp operations services and camp maintenance. These services are essential for the construction of the Project.



Sodexo front desk clerk Southwind Redhead (YFFN)



Sodexo kitchen tool box talk



Unit 1 Draft Tube Work

Safety and Workplace Environment

For Manitoba Hydro and the partner First Nations, the safety, health and well-being of all employees working on the Project is a top priority. Between April 1, 2017 and March 31, 2018, there were more than 6.6 million person hours worked at the Project site. With greater activity around the site, there is a greater possibility for safety incidents to occur. Over the period, there were three lost time injuries, which is less than half the number that occurred over the previous two years. Fewer lost time injuries for the reporting period is significant, as there were more person hours worked in 2017-18 than in each of the previous two years. Manitoba Hydro, the partner First Nations and the on-site contractors will continue to strive for the goal of zero injuries.

In August 2017, a Nurse Practitioner Clinic opened onsite at Keeyask and is located within the Emergency Medical Services area. The nurse practitioner cares for workers who may have limited access to their regular medical care providers while at site. Nurse practitioners are registered nurses that are qualified to treat certain medical conditions without direct supervision by a physician. They work with the patient to help diagnose disease, treat illness, order and interpret diagnostic tests, prescribe medications and treatments, and evaluate treatment results.

The Project site has a Drug and Alcohol Standard that is focused on providing a safe workplace for everyone including employees, contractors and visitors, and is revised, as required. The Drug and Alcohol program at Keeyask provides the opportunity for treatment for addictions when a worker is willing to seek treatment.



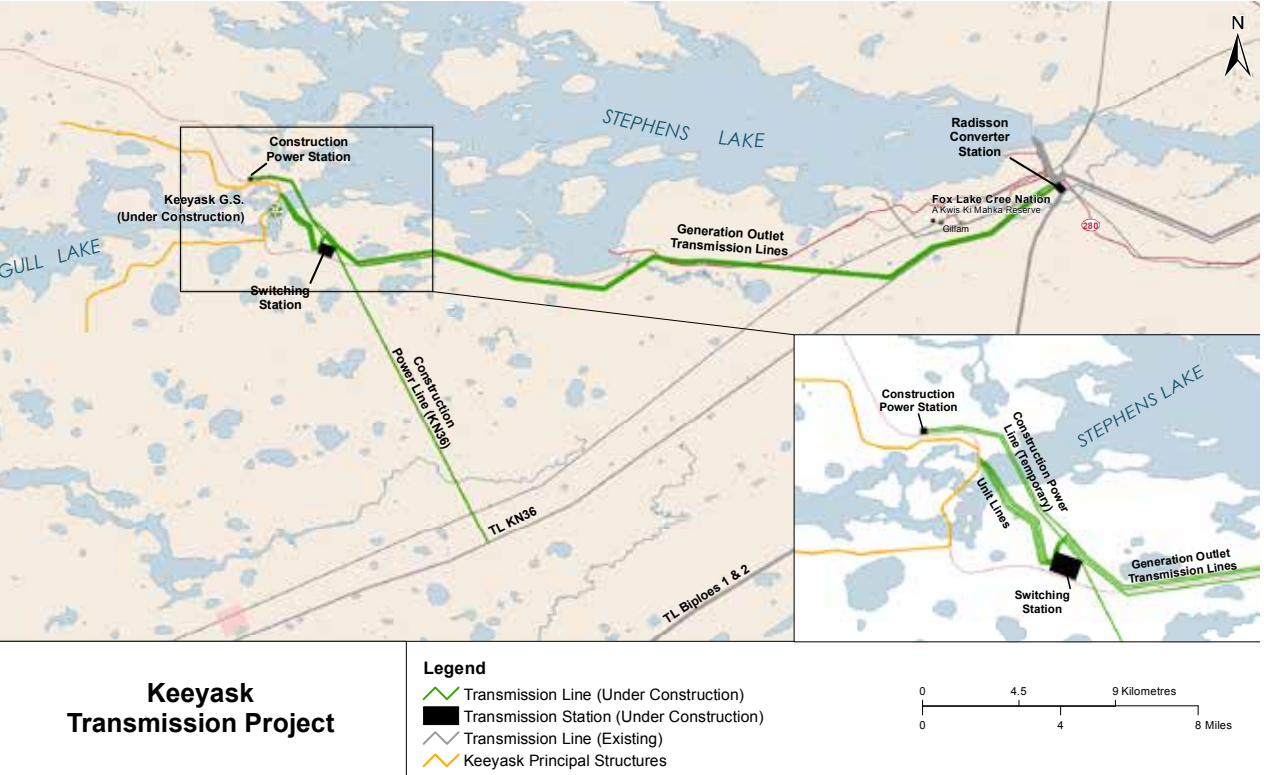
Nurse Practitioner, Annabelle Reimer (Bayshore Healthcare)

Community-based treatment and recreational marijuana education programs were recently added to the Standard. As of March 31, 2018, 58 workers completed a treatment program and have successfully returned to work. The treatment for addiction not only supports a safe working environment but also improves the lives of individuals and their families.

Keeyask Transmission Project

The Keeyask Transmission Project is being built at the same time as the Keeyask Generating Station. When the Keeyask Generating Station is operational, the Transmission Project will link the power produced at Keeyask to the Manitoba Hydro system. The Transmission Project is owned and managed by Manitoba Hydro and is outside the scope of the KHLF. The main components of this project include: three Generation Outlet Transmission Lines, four unit transmission lines, a new Keeyask switching station, and upgrades to the Radisson Converter Station in order to prepare the station for the power produced by the Keeyask Generating Station. Breaker replacements

and station upgrades at Radisson Converter Station are underway, which includes replacing seven breakers and installing the duct banks (housing) for the underground cables. A contract to construct the four unit transmission lines and the remaining two Generation Outlet Transmission Lines was awarded as a Direct Negotiated Contract (DNC) to Forbes/ Iron North, which is a TCN Joint Venture contractor. Construction of these transmission lines began in winter 2018 with the installation of foundations, anchors, tower assembly and tower erection. Breaker replacements at Radisson will continue until 2020.



Keeyask Transmission Project



Construction of a tower during the Keeyask Transmission Project

Employment and Business Opportunities

Keeyask is influencing 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 result in incremental provincial tax revenues and contributions to the provincial gross domestic product. The following sections discuss the major direct economic impacts of the Keeyask Generation Project from the beginning of construction in July 2014 to March 31, 2018.



Manitoba Hydro staff working with BBE



Adam Cook (TCN), Northern Maintenance Services (NMS) Water Treatment Plant Operator

Employment

Employment statistics are tracked to determine the overall employment outcomes of Project construction, with particular emphasis on Indigenous and northern resident participation. Employment is being measured in a few ways, including hires, employees and person years. Hires refer to the number of people hired for any amount of time at the Project site. One individual may be hired more than once and each hire is recorded separately. 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 means 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 Keeyask construction work, a person-year of employment represents 3,000 hours of work per year. The person-years of employment presented in this section, are shown both at 2,000 hours of work per year, for economic comparisons to other industries, as well as at 3,000 hours (identified in parentheses) of work per year.



John Theissen and Leonal Marques (BBE)



Ronnett Paul, BBE Carpenter

Person-years of Employment

From the start of Keeyask Generation Project construction to March 31, 2018, direct employment on the Project totaled 7,801 (5,200) person-years. As the figure below illustrates, 64 per cent, or 5,005 (3,337) of these person-years, represent people already living in Manitoba.

Of the 64 per cent of employees already living in Manitoba:

- Northern Manitobans represent 40 per cent, or 1,195 (1,330) person-years;
- Other Manitobans represent 60 per cent, or 3,010 (2,007) person-years;
- Indigenous employment represents 52 per cent, or 2,600 (1,733) person years; and
- Non-Indigenous employment represents 48 per cent, or 2,405 (1,603) person-years of the Manitoba employment.



Justin Geswein – BBE



Melanie Beardy (FLCN) - Sodexo employee

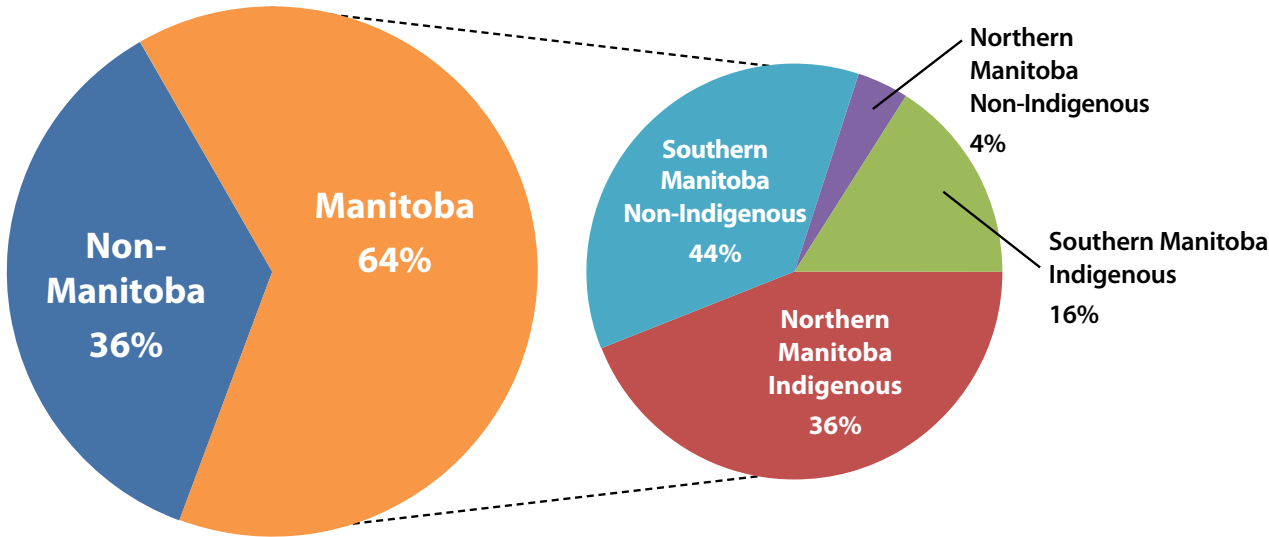


George Ponask (Production Chef, red seal chef trainer) Victoria Lundie (TCN, 3rd cook, red seal chef apprentice), Steve Saunders (YFFN, 2nd cook red seal chef apprentice)

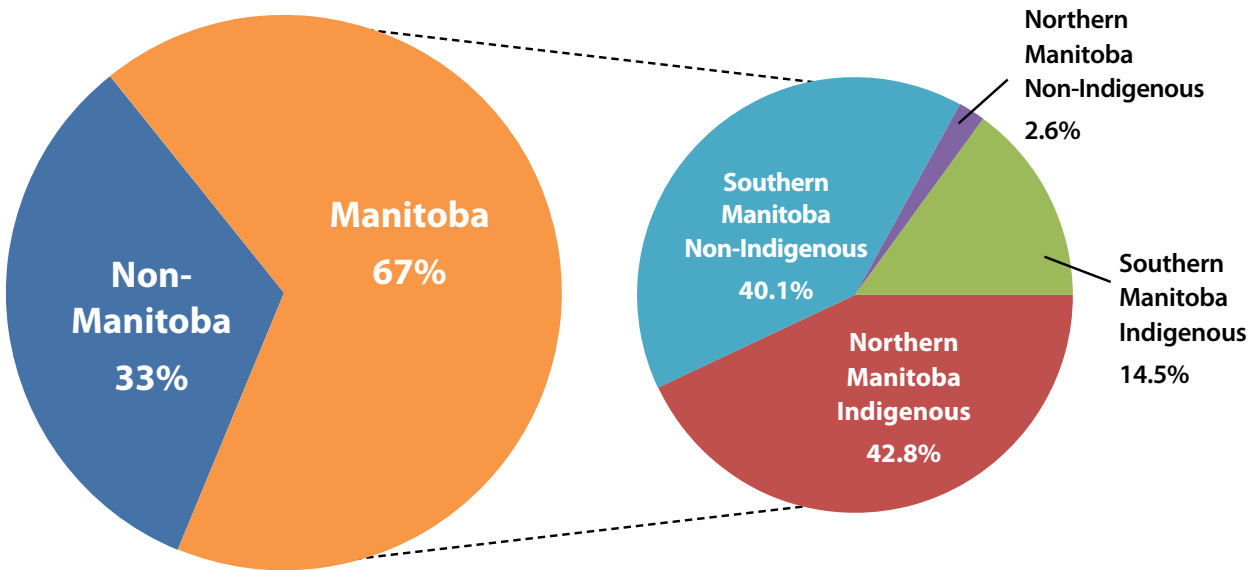


Samuel Wavey (TCN), better known as TJ, started with NMS as a Level 3 Heavy Duty Mechanic Apprentice. He has successfully completed Level 3 Technical training and is waiting for a spot in Level 4

Total Person Years of Employment Breakdown



Breakdown of Hires



Hires

From the start of Keeyask Generation Project construction to March 31, 2018, there were 13,654 hires on the work site.

Of the total hires, 9,148 or approximately 67 per cent were Manitobans.

- Total northern Manitoban hires represent 45 percent (4,152) of Manitoba hires;
- Indigenous hires represent 57 per cent (5,237) of Manitoba hires; and
- Non-Indigenous hires represent approximately 43 per cent (3,911) of Manitoba hires.

Total Hires by Job Classification	Total Hires	Percent of Total Hires	CBN ¹	Indigenous	Non-Indigenous	Northern MB	Other MB	Non-MB
Labourers	2464	18%	804	1409	1055	1112	895	457
Security Guards	153	1%	12	53	100	38	115	<5 ²
Crane Operators	235	2%	7	38	197	16	148	71
Equipment Operators	1170	9%	190	418	752	305	459	406
Teamsters	1051	8%	275	553	498	408	461	182
Carpenters	2290	17%	84	483	1807	203	510	1577
Millwrights	40	<1%	<5	<5	37	<5	40	<5
Painters	9	<1%	<6	<5	7	<6	8	<5
Floor Covering Installers	9	<1%	<7	<5	9	<7	8	<5
Insulator Workers	83	<1%	<8	19	64	<8	69	12
Lathing and Drywall Workers	42	<1%	<9	8	34	<9	14	27
Cement Masons	169	1%	<10	27	142	<10	52	115
Sheet Metal Workers	12	<1%	<11	<5	10	<11	12	<5
Roofers	16	<1%	<12	<5	15	<12	13	<5
Sheeters, Deckers and Cladders	42	<1%	<13	10	32	<13	32	10
Boilermakers	21	<1%	<14	<5	20	<14	19	<5
Iron Workers	659	5%	13	183	476	43	301	315
Rod person	166	1%	<5	35	131	<5	31	132
Electrical Workers	329	2%	37	86	243	68	247	14
Plumbers and Pipefitters	219	2%	19	63	156	26	181	12
Refrigeration Workers	26	<1%	<5	13	13	<5	17	6
Sprinkler System Installers	<5	<1%	<5	<5	<5	<5	<5	<5
Office and Professional Employees	1105	8%	156	381	724	253	599	253
Caterers	1599	12%	1130	1548	51	1513	50	36
Elevator Constructors	6	<1%	<5	<5	6	<5	6	<5
Other ³	1723	13%	108	249	1474	155	693	875
Total Hires	13654	100%	2839	5586	8068	4152	4996	4506

¹ CBN stands for Churchill-Burntwood-Nelson communities identified in the Burntwood Nelson Agreement as part of the hiring preference Zone 1

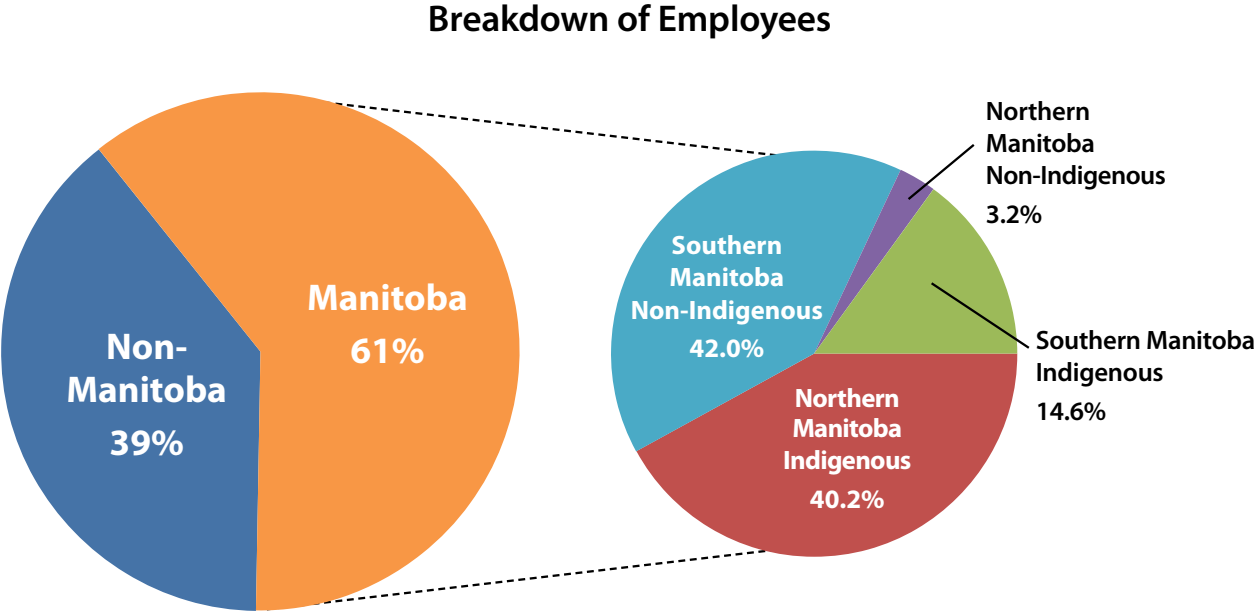
² For employee privacy and confidentiality reasons, categories with less than five hires are shown as <5

³ 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).



Individual Employees

A total of 7,711 individual employees were hired on the Keeyask Generation Project. Of this, 61 per cent (4,680 individual employee hires) were Manitobans. The total number of employees is less than the total number of hires (13,654) because the same individual may have been hired more than once. The difference of 5,943 identifies the number of re-hires at the Project site.



On-the-Job Training Opportunities

On-the-job training (OJT) programs were developed at site to hire individuals as trainees and apprentices and to enhance their qualifications for further career development. The programs offered during this period were in the following areas:

- Catering, janitorial services and housekeeping;
- Maintenance services;
- Security services;
- Emergency medical and ambulance services;
- General civil contract;
- Reservoir clearing; and
- Spillway and Intake gates, guides and hoists.

Keeyask Generation Project - Year in Review

Rate of Turnover

The cumulative rate of turnover is calculated as total incidents of separation, for discharges and resignations, divided by hires¹ from the start of construction to a given point in time. The cumulative rate of turnover does not include layoffs or transfers to other positions or contracts.

From the start of generation station construction to March 31, 2018, the cumulative turnover rate for the Project is 31 per cent for total hires, 44 per cent for Indigenous hires and 22 per cent for non-Indigenous hires.

¹ Hires for calculating turnover has been modified to exclude Contract 016125 (EmergencyMedical Services), Contract 016180 (Nurse Practitioners), and environmental monitoring contracts as hiring and work scheduling practices for these contracts can misrepresent the true turnover rate.



Business Opportunities

Project construction presents direct and indirect business opportunities locally, regionally and across the province as a whole. Business outcomes of Project construction are being tracked, with a particular focus on Indigenous and northern Manitoba business participation.

Direct impacts result from Project expenditures and include employment, purchases, and income generated by the Project. 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. At the peak of the General Civil Contract, Key Person Interviews will be undertaken in Thompson, Gillam and each partner First Nation community to find any indirect business opportunities that may be generated as a result of the Project.



Direct Negotiated Contracts

As of the end of March 2018, eighteen Direct Negotiated Contracts (DNCs) for the Keeyask Infrastructure and Generation projects, ranging from camp services to heavy construction, were awarded to the partner First Nations with a total value exceeding \$500 million. These DNCs with partner First Nation joint venture companies include work undertaken on the following components of the Project:

Services (throughout Infrastructure and Generation projects)

- Catering and janitorial services;
- Security services;
- Camp maintenance services;
- Employee Retention and Support Services (ERS); and
- Emergency Medical Services (EMS).

Infrastructure

- PR 280 (crushing and stockpiling);
- North Access Road Part A (0.5 km and a truck turnaround) & Part B (the remainder of the road);
- Start-up camp and work areas site preparation;
- Looking Back Creek bridge; and
- Work areas site development.

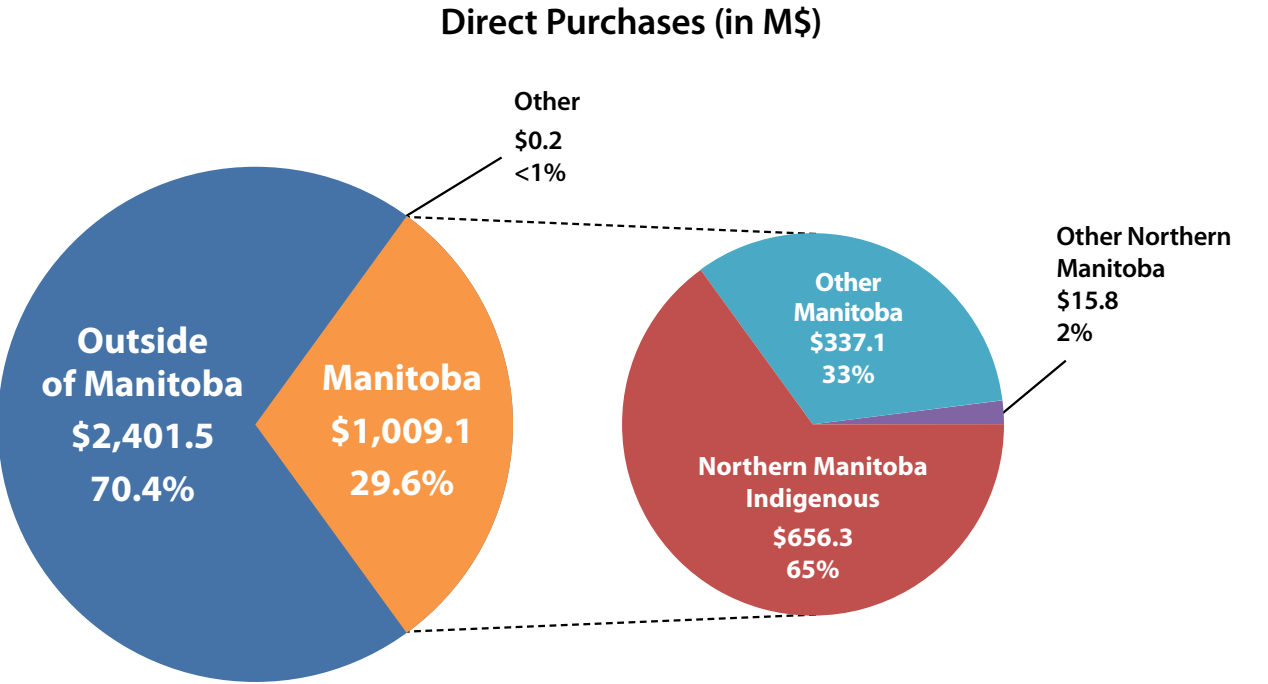
Generation

- Southside containment dykes;
- South Access Road;
- Reservoir clearing;
- Upstream and downstream boat launches;
- Reservoir spawning shoals; and
- Ellis Esker Winter Trail.

In addition, four DNCs were awarded to TCN Joint Venture companies for the Keeyask Transmission Project with a total value exceeding \$75 million. DNCs have also been highly successful in providing significant employment and training opportunities for members of the partner First Nations.

Project Purchases

There was \$3,410.9 million spent on goods and services for the Project. Of this, \$1,009.1 million were Manitoba purchases. Total northern Manitoba (Indigenous and non-Indigenous) purchases represent \$672.1 million or 67 per cent of the total Manitoba purchases. This information reflects direct purchases of the Project for contractors and services. Indirect purchases made by contractors, in turn, would include purchases of goods and services from Manitoba based businesses.



Income

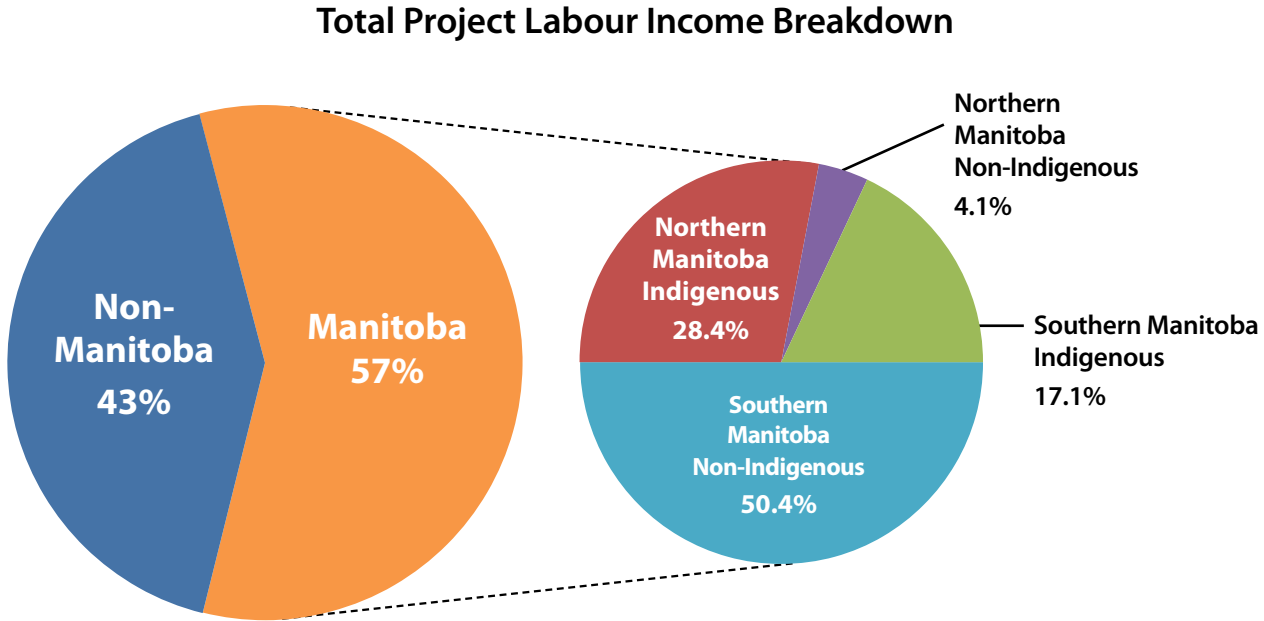
Project construction will generate income from a number of sources including employment, business opportunities and payment of taxes. Partner First Nations’ income will originate mainly from employment and to a lesser extent from Direct Negotiated Contract business opportunities resulting from construction. During the operation phase, the partner First Nations will receive equity income as a result of being partners in the Project.

Labour income is an important indicator of the economic impact of a project. It is the sum of wages and salaries earned by workers.

The Project, from July of 2014 to March 2018, generated \$789.1 million in total labour income. Of this, Manitoba labour income represented \$452.6 million or approximately 57 per cent of total labour income. Of total Manitoba labour income, Indigenous labour income represented approximately \$206.1 million (46 per cent), northern Manitoba Indigenous labour income represented approximately \$128.6 million (28 per cent), northern Manitoba non-Indigenous represented approximately \$18.5 million (4 per cent), and non-Indigenous represented \$ 246.5 million (54 per cent). Partner First Nation labour income represented approximately \$69.7 million (15 per cent) of total Manitoba labour income.



Freddy Flett (TCN) Northern Maintenance Services Worker



People and the Environment

Prior to obtaining a Manitoba Environment Act licence and a federal Fisheries Act authorization to construct the Project in 2014, many years of study were conducted to understand the pre-Project conditions in the Keeyask area. Both ATK and technical science were used during the assessment. Predictions were made on the effects that the Project would have on people and the environment and mitigation plans were developed to reduce the impact.

Now, during construction of the Project, ATK and technical science monitoring are being used to follow up on the predictions, and assess the effectiveness of mitigation measures. Construction of the Project is at approximately the halfway point and mitigation measures are being carried out to reduce the impact of the Project on the environment. A substantial amount of monitoring was undertaken over the last four years to get an understanding of the effects of construction.



A Manitoba Hydro Environmental Inspector recording field test results



Leslie Flett (TCN) taking a sample for water quality analysis

Aboriginal Traditional Knowledge (ATK)

Tataskweyak Cree Nation (TCN)

ATK is described in the Cree Nation Partners’ Environmental Evaluation Report for Keeyask as “knowledge that reflects our experience, understanding, wisdom, values, beliefs, norms and priorities governing our relationship with Mother Earth and all her beings, derived and developed through living in our homeland ecosystem since time immemorial. ATK is inexplicably linked to our culture and our worldview.”

The Tataskweyak Aboriginal Traditional Knowledge monitoring program was put together to monitor the effects of the Project. Early January 2018 was the start for Tataskweyak’s Aboriginal Traditional Knowledge monitoring program. Tataskweyak hired two monitors who took on the lead roles in the ATK monitoring program. The monitors met with Manitoba Hydro in mid-January to attend their first orientation. Later that month, along with other community members

and local land resource users, the monitors attended two meetings with Manitoba Hydro, which included a Monitoring Advisory Committee (MAC) meeting, and a Keeyask Caribou Coordination Committee (KCCC).

On February 26, 2018, one of the monitors attended a land-based healing workshop put together by the TCN Resource Group. The workshop had several community members attend that were split into brainstorming groups. These brainstorming groups shared ideas on how land-based healing can help the community. The groups focused on four spectrums of healing; Mental, Physical, Emotional, and Spiritual.

Going forward the monitors would like to engage the community in meetings/workshops to gather input from the members and find out what’s important to them and what they would like to see in the ATK monitoring program. These meetings/workshops will also help to develop a greater understanding of the Project’s effects on both the physical and spiritual aspects of our traditional knowledge and lifestyle, and to educate and strengthen the connection we have with both. The information gathered will help the ATK monitors come up with a mitigation plan to reduce the impact of the Project on the environment.



A young woman participating in the bannock and tea making competition



Two young men competing in the community traditional activities

Tataskweyak Cree Nation delivers a Traditional Lifestyles program in the community that focuses on hands on/land-based learning for both youth and adults. The program teaches traditional knowledge and customs of our people. One of the monitors had the opportunity to attend a Traditional Knowledge workshop and learned that there is a growing interest within the community’s youth. This is a very good sign of progress in the community’s goal to pass down much valued traditional knowledge.

Between April 1 and 2, the monitors attended the Chief Sam Cook Mahamuwe Education Center Annual fishing derby put together by the local school.

The monitors put together a community meeting on April 10, 2018, which included a heritage and ATK component. The community meeting/heritage workshop had several attendees, 12 of which were Elders - the primary traditional knowledge holders.

For the heritage portion of the gathering, Keeyask Archeologist, Amber Flett, accompanied by a Manitoba Hydro representative, brought a map that displayed all the heritage sites, cabin sites, camp sites, grave and other heritage locations currently known to Manitoba Hydro, with the goal of ensuring no other locations were overlooked. In the near future, the monitors will put together an Elders Committee, who will provide much needed advice on what the monitors are focusing on. From the meeting, the monitors learned how much the Elders appreciate the ATK staff’s efforts to involve them in these activities and how we are ensuring what we are learning can be transferred from each generation to the next.



C.S.C.M.E.C. annual fishing derby



Community members dressing up as trappers for the Elders



Bannock and tea making competition judges

York Factory First Nation - Askiy Nanakacihtakewin (AN) Stewardship Program

Program Overview

Askiy Nanakacihtakewin means, “to watch out for and take care of the lands, waters, wildlife, plants, and people of the land”. YFFN has chosen the term “stewardship” for its “monitoring” program, as this word is better aligned with Ininiw perspectives on caring for Askiy. The program is designed to incorporate traditional science and Ininiw kiskenihtamowin (ATK), with cultural, educational, and traditional elements in understanding the effects of the Project on YFFN’s members and their traditional lands.

In 2017-18, the program had two full-time staff members: the YFFN Stewardship Coordinator and Stewardship Assistant and a contracted Monitoring Support Worker.

Steering Committee

Program staff meets regularly with the Askiy Nanakacihtakewin Steering Committee, a group of Elders, resource users, Resource Management Board (RMB) members, Band and Implementation staff who offer guidance to the program and ensure linkages with other First Nation programs and activities.

Keeyask Committees and Working Groups

Program staff represent YFFN on a number of Keeyask committees and working groups. Each of these groups acts as a forum to share community perspectives and work for better inclusion of Ininiw knowledge and values in the Keeyask project.



- Keeyask Monitoring Advisory Committee (MAC)
- Keeyask Caribou Coordinating Committee (KCCC)
- Construction Advisory Committee (CAC)
- YFFN Steering Group for the Keeyask Socio-Economic Monitoring Plan (SEMP)

Topics of Focus

Several of the priority topics for the Steering Committee and staff over the past year have been:

- ATK in Keeyask monitoring and management - YFFN continues to work to build the role of ATK and find meaningful ways to reflect Ininiw culture and knowledge in the Project. This has been a regular topic of discussion at MAC meetings and bilateral meetings with Manitoba Hydro staff.

- Caribou mapping and knowledge sharing - YFFN recognizes the wealth of knowledge held by Indigenous resource users in northeastern Manitoba and is looking to bring that knowledge into discussions about project effects and regional caribou management. For several years, YFFN’s A.N. program has been mapping caribou observations with YFFN resource users to create a record of what they are seeing on the land over the course of the winter. YFFN has shared its mapping template with other communities in the hopes of recording accounts from more harvesters over a broader area. YFFN is also looking to expand current KCCC discussions to include voices of knowledge holders from other Indigenous communities in the region, who observe and rely on the same herds that use the Keeyask area.
- Drug and alcohol use and sexual exploitation – YFFN is working to address a number of social problems in the community that have been amplified by the presence of the Project. A.N. staff have been working with KHLBP Board members, Implementation staff, and Manitoba Hydro personnel to discuss a community-based response to these community health issues.
- Regional Cumulative Effects Assessment (RCEA)– The AN Steering Committee took part in YFFN’s review of the Regional Cumulative Effects Assessment undertaken by Manitoba and Manitoba Hydro. As the regional hydro-electric system sets the context for Keeyask effects and monitoring, the review was identified as a priority for the committee. YFFN’s written comments and a transcript of a community meeting on the RCEA are available on the website of Manitoba’s Clean Environment Commission at cecmanitoba.ca.

Events and Activities

Program staff planned and participated in the following events and activities between April 2017 and March 2018:

- Gathering with traditional knowledge keepers and scientists at Turtle Lodge in Sagkeeng
- Reviewing and holding a community meeting on the Regional Cumulative Effects Assessment
- Releasing sturgeon fingerlings at Orr Creek
- Hosting two language workshops - exploring the spiritual/cultural framework of Ininimowin as a basis for YFFN stewardship
- Sharing information at a YFFN Internal team meeting on Keeyask Implementation
- Meeting with the province-wide Coordinated Aquatic Monitoring Program (CAMP)
- Reviewing climate change predictions for YFFN traditional lands
- Attending the Hudson Bay Summit gathering in Montreal
- Mapping annual caribou observations with YFFN resource users
- Hosting a four-day ATK winter camp for Elders, youth, and resource users focused on harvesting, preparing and sharing traditional foods



War Lake First Nation Aboriginal Traditional Knowledge Monitoring Program

War Lake First Nation developed a program to monitor the potential environmental effects resulting from the construction and operation of Keeyask based on our Aboriginal Traditional Knowledge (ATK). Our ATK Monitoring Program ensures opportunities are provided for all Members, including Elders, resource users, knowledge holders, and youth, to participate in activities designed to capture their knowledge of traditional War Lake lands and waters and to observe, discuss, and report on potential effects to these areas resulting from Keeyask.

The following provides an overview of key activities undertaken to date and provides summary information regarding upcoming activities.

ATK Monitoring Trip #1

War Lake’s program includes an “on-the-land” monitoring component which brings together resource users, knowledge holders, Elders, and youth, to spend time at traditional locations and to observe and discuss changes to the lands and waters.

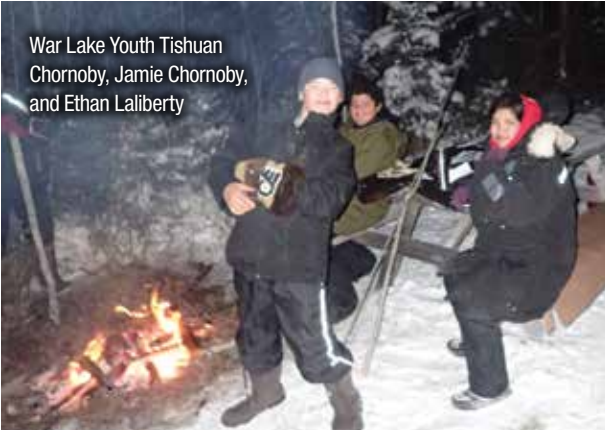
War Lake held a Site Selection Workshop to identify locations of greatest importance to the community. War Lake Members selected four sites (and four alternate locations) to visit – War (Princess) Lake, Atkinson (Fox) Lake, Landing River, and Fox River.

The inaugural Monitoring Trip was held at War (Princess) Lake and was attended by eight members,

including the Keeyask Coordinator, the Trapline holder for the area (who acted as a guide and Fieldwork Leader), Elders, youth, and resource users. The group spent a total of four days in the War Lake area. A map was created showing the locations observed and is included in War Lake’s Draft Monitoring Trip Report. On this trip, War Lake members remarked that they had recently experienced a high-water event (spring 2017) which flooded War Lake Road, which the group used to access various locations on this trip. The water rose to unprecedented heights and fully submerged the access road. The group also observed the extensive damage from a recent forest fire throughout the visited areas. The most notable damage was observed at Mile 4, where many of the trees were so badly damaged that they were best turned into firewood for the group.

Resource Users Roundtables

An important feature of War Lake’s ATK Monitoring Program are quarterly roundtable sessions, which bring together experienced resource users who are very familiar with the land, lakes and rivers where they trap, hunt and fish year after year. The Resource User Roundtables are an opportunity for Members,



who regularly access the land, to discuss individual observations of impacts caused by the Project, and to reflect on how changes to the land and waterways might impact future generations.

November 28-29, 2017 – Resource Users Roundtable Discussions

This first Resource Users Roundtable focused on identifying locations participants were most familiar with when pursuing resource use activities to help inform the ATK Monitoring Program. The map used for marking observations captured the locations most frequently accessed by War Lake Members for resource use as identified during the Site Selection Roundtable of September 7, 2017. At that time, the six participating resource users narrowed down the locations of interest for the “on the land” ATK Monitoring Trips to the following sites: Fox River, Dafoe River, Atkinson (Fox) Lake and Landing River. Chief and Council also thought it important to add Princess (War) Lake to the list of sites to visit for these very important monitoring trips. A series of questions dealing with familiarity with the land, lakes and rivers led to participants sharing observations and experiences related to trapping, hunting, fishing and accessing the land. These activities were marked on the map, as were changes observed over time and challenges experienced. A second series of questions probed the group’s concerns with changes to the physical environment. All observations were noted on a flip board and the group worked together to organize findings by the following areas of resource use: Munk to Cyril Lake, War (Princess) Lake to Three Sisters Lake, Cyril Lake to Atkinson (Fox) Lake to Fox River, Landing River, and Mooseocoot (Moose Nose) Lake.

A final series of questions guided the participants to discuss resource use challenges in general and concerns about the future. Observations and experiences shared included challenges related to: seasonal changes influencing access to the land, the high costs of fuel and equipment, and making time to get on the land more frequently and/or for longer durations. Concerns were also expressed regarding safety, especially related to the shortened winter season, and the ability to maintain the traditions and knowledge of their Elders. Most agreed that they were losing opportunities to teach the next generation.

February 28-March 1, 2018 – Resource Users Roundtable Discussions

The second Resource Users Roundtable focused on two specific geographic locations, War (Princess) Lake and Atkinson (Fox) Lake. War (Princess) Lake was selected in order to reconfirm observations made by War Lake Members who participated in the first ATK Monitoring Trip, which took place in early November 2017. Atkinson (Fox) Lake was the site selected for the next ATK Monitoring Trip and this session provided an opportunity to collect information in advance of the planned trip in order to shape on-the-land activities.

Extensive map markings were made, which included resource use activity by season, including changes to the population and movement of animals and fish. In discussing changes noted over time, many of the participants retold stories of the history of these two traditional resource use areas, including the reason for alternate lake names.

Another series of questions led to detailed discussions about overland and waterway travel and associated challenges. Factors influencing safe travel as noted by

participants include quality of trails/portages, impact of weather conditions (e.g. snow cover, water levels, flooding) and construction and maintenance of winter roads. The final series of questions dealt with the water quality and flow of lakes and rivers in the two areas. Participants described the water in both areas as having lots of movement and being very clear, with no evidence of negative impacts to animals and fish. They noted more pronounced changes to the water levels in spring due to the unprecedented heavy snowfalls in recent years. This has resulted in overland flooding in the War (Princess) Lake area and changes to sand bar elevations in Atkinson (Fox) Lake, leading to destroyed plants and uprooted trees.

Upcoming Activities

War Lake has a number of activities planned for the upcoming year. These include:

- ATK Monitoring Trips to Landing River and Fox River;
- Resource User Roundtables; and
- Keeyask Site Visits to observe and monitor construction progress.



War Lake will also produce an annual report which documents and summarizes the activities which have occurred to date, including observations about resource harvesting (wildlife availability and patterns), weather patterns, changes to the lands and waters, and other related topics. If warranted, War Lake will include recommendations for future monitoring based on the findings.



Fox Lake Cree Nation

The Fox Lake Cree Nation (FLCN) Impact Assessment Unit (IAU) consists of Environmental Monitors that have been monitoring the Keeyask Project footprint, which includes Fox Lake Cree Nation's Traditional Territory, Keeyask Site/Main Camp, South Access Road, Keeyask Transmission Lines and areas in and around the project. These areas have been monitored since the beginning of construction and will be monitored post construction.

The IAU undertake the following activities as outlined in the monitoring plan:

- Traditional teachings from FLCN Elders, Resource Users, Harvesters, and Youth relating to the land, water, animals, and spirituality. Information shared is implemented in our monitoring activities;
- Monitor and report on the presence/absence of wildlife, rare/traditional/native plant sightings, activity in the area, concerns from FLCN, seasonal

events (hunting, fishing, harvesting and ceremonial activities) and heritage/cultural sites;

- Provide employment opportunities for FLCN members: utilize their expertise of the land, water and traditional knowledge in FLCN Traditional Territory/Keeyask Project area;
- Report information regarding monitoring to FLCN: Community Update(s), information sessions and FLCN Facebook/Environmental page(s);
- Report any protection and prevention measures to the proper resources: Manitoba Sustainable Development;
- Assist by locating and identifying environmentally sensitive sites. Educate and involve FLCN members on restoration measure taken: Heritage sites: settlements, graves and artifacts;
- Work with Manitoba Hydro Environmental Inspectors, researchers, persons related to the Project and report to the Senior Environmental Assessment Officer.



FLCN IAU staff sit on the following committees relating to the project: Monitoring Advisory Committee (MAC), Keeyask Caribou Coordination Committee (KCCC), Kischi Sipi Namao Committee (KSNC), Construction Advisory Committee (CAC), Mercury and Human Health Implementation Group (MHHIG) and the Community Impact Group. Information gathered at these meetings is relayed to FLCN members as an update.

Site Monitoring

Inspections are done regularly, monitoring scheduled construction, and planning ahead with Manitoba Hydro to be involved as much as possible. To plan our monitoring schedule, the IAU refer to the Manitoba Hydro Northern Capital Projects – Construction Activity Report.

The FLCN IAU took part in a few planned environmental field activities in the Keeyask Project Area throughout 2017-18, shadowed the Keeyask Environment Inspectors on their weekly inspections and networked with other departments within Fox Lake to share information relating to the Project.

Bird Collision Monitoring Survey

Wildlife Resource Consulting Services (WRCS) MB Inc. said “The objective of the study is to assess the effectiveness of bird diverters. The diverters are placed on sky-wires to improve visibility of the wires to birds and to minimize potential bird-wire collisions.” TCN and War Lake partners assisted with the survey.

Archaeological Monitoring

The IAU team was invited to take part in an archaeological excavation with Tataskweyak Cree Nation on August 14-17, 2017. It is great to see that our history is being preserved and documented. We are glad to be a part of it and get to see firsthand what it takes to do an archeological survey and the findings that come with it. Each of us had a one metre by one metre grid section to sift through by trowel to see if any findings were present. After this step we proceeded to dig farther down to the sandy layer where artifacts were uncovered. It was decided that the hard pack clay would be as far as we would dig. Artifacts found were glass, ceramics, beads, metal tools, squared iron nails, pipe stems, pipe bowl, and also animal bones and fish bones. After the site was completed the earth was put back where it came from and a tobacco offering is made and a prayer and thanks were given. This gave us a good understanding of signs to look for in the future, while out on the land. This may lead to unearthing more history and finding areas of interest in our own traditional territory. This place named Kapowinik (Hunter's) Bay is just a sliver of what is left to be discovered out there.

Vegetation Survey Monitoring

On August 3-5, 2017 the IAU team had the pleasure of being a part of Vegetation Monitoring and got to go out and experience what rare plants were all about. There are a few rare plants that Environmental Consultants check up on in our Traditional Territory.

Pitcher Plants were found that were used many years ago in our Traditional territory. It was also used for Medicine use way back then, to clean out the body.

Keeyask Sturgeon Ceremony

The IAU staff attended their first Sturgeon Ceremony at Keeyask on August 5, 2017. The ceremony was performed by a traditional Elder who shared his knowledge about the origins of sturgeon, followed by a sharing circle and smudge. We then celebrated sturgeon back to the river by producing a traditional medicine that was released into the river. We were grateful to be a part of this ceremony and it showed those who were involved to have respect for our water born ancestors.

Sturgeon Release – Keeyask

On October 5, 2017, 250 Birthday Rapids Sturgeon yearlings were released at the Stephen's Lake boat launch at the Keeyask site. Grand Rapids Hatchery staff, Manitoba Hydro boat patrol crew, and staff members from Employment Retention and Support Services (ERS) were in attendance. ERS gifted offerings of tobacco to release into the river along with our own personal prayers for the sturgeon's safe journey back into the river.

Native Plant Solutions Environmental Monitoring

On September 21, the IAU team assisted Native Plant Solutions on the north side of the South Access Road. We assisted with monitoring the growth of wetland seeds and plants that were planted last fall. We noticed a lot of the new vegetation that had been planted was grazed by geese, confirmed by goose droppings located in the area. We were situated along the ditch where we also helped throw 'Cat tail' seed and hedge weed seed. The seeds were acquired from previous plants that were in the area prior to construction. Native Plant Solutions was very knowledgeable and happy to share information regarding various types of wetland plants.

MAC Open House – Gillam School

The MAC Open House was a collaboration of FLCN Implementation and Future Development departments Job Referral Services, Operational Jobs and the Impact Assessment Unit. The Open House was a unique event, which held an abundance of information. It was attended by FLCN Elders, Gillam School students, the MAC members, the general contractor, Northern Maintenance Services, Allied Hydro Council, Workplace Education Manitoba, Keeyask Site Reps, Sodexo, and Apprenticeship Manitoba.



Population, Infrastructure and Services

Population

The Keeyask Environmental Impact Statement (EIS) predicted the Project would not result in notable change in the number of people in the partner First Nations’ communities or in Gillam. However, accurately identifying the precise levels of in- and out-migration is difficult and the partner First Nations have noted that any in-migration to their communities could stress services already at capacity. Population is being monitored to confirm the extent of Project-induced migration in the partner First Nation communities and Gillam.

Partner First Nation Communities

The Partnership has monitored the total on-reserve and on-own-Crown land² populations of each of the partner First Nations. The total on-reserve and

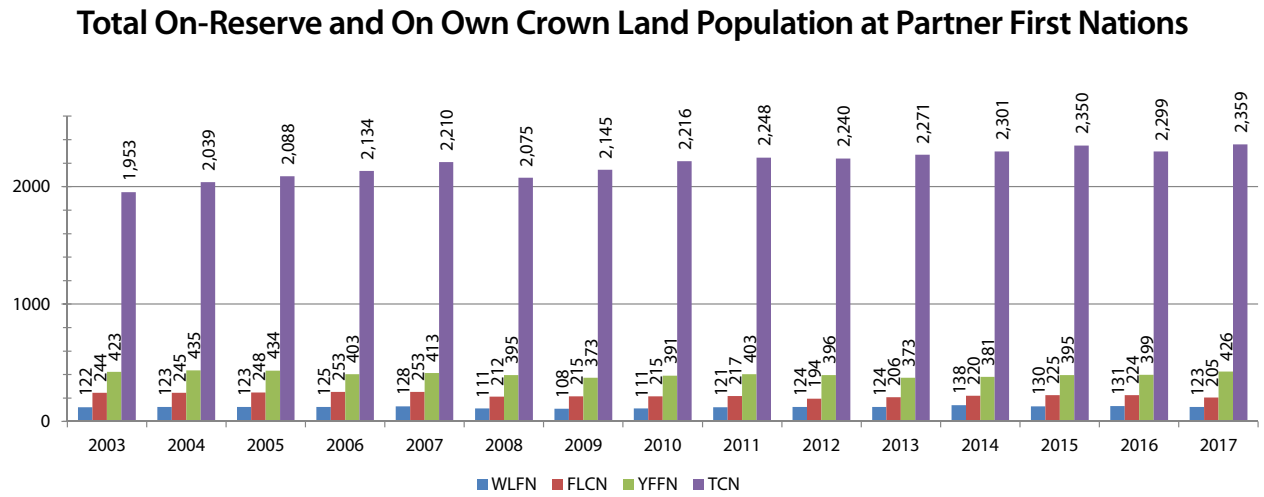
on-own-Crown land population of the partner First Nations represents the population recognized as most likely to access housing, infrastructure and services on reserve. Members who reside off-reserve may still access band housing, infrastructure and services, particularly in the case of FLCN, which has a number of members living in Gillam. One-time Key Person Interviews, reported on below, are also being conducted to identify any apparent Project effects on housing, infrastructure and services in the partner First Nations’ communities.

As shown in the graph below, data for the communities from 2003 to 2017 shows periods of moderate population growth as well as decline across years. Over this past reporting period, modest increases were observed in the TCN and YFFN populations, and modest decreases were observed in the WLFN and FLCN populations.

The changes in total population observed from 2016 to 2017 are consistent with the trends observed over time. While changes in the growth rates of all communities between the pre-construction and construction periods are observed, it is important to note that when looking at relatively small communities the addition or out-migration of a few families can result in what appears to be substantial changes in growth rates. That is why trends over multiple years are considered in tracking population. Continued monitoring will help determine whether the changes observed in the construction period are consistent with past variations across similar, short, time periods.

	TCN	WLFN	YFFN	FLCN
Total Population Change				
Between 2003 & 2017	406	1	3	-39
Between 2016 & 2017	60	-8	27	-19
Average Annual Growth Rate in Pre-Construction and Construction Periods ¹				
Between 2003 & 2014	1.50%	1.13%	-0.95%	-0.94%
Between 2014 & 2017	0.83%	-3.76%	3.79%	-2.33%

¹Population change and the growth rate in the pre- (2003–2014) and post-construction (2014-2017) periods are reported to show change that has occurred since the Project began.



²On-Own-Crown lands are those lands not classified as reserve lands but Crown Lands that have been assigned to a particular Band. Population monitoring is based on data from Indigenous and Northern Affairs Canada (INAC), from December 31, 2003 to December 31, 2017. INAC tracks First Nations population data for a number of categories including on-reserve, off-reserve, on-own-Crown land, on no Band Crown land, and on another Band Crown Land.



Town of Gillam

Population data for the Town of Gillam is based on data from Manitoba Health’s annual health statistics, which were not available for this reporting period. A comparison of the Gillam population from 2008 to 2016 (as reported in the 2016 Socio-economic Monitoring Plan Annual Report) is demonstrated in the graph below.

Worker Interaction

A Worker Interaction Subcommittee was established prior to the beginning of the Project’s construction. This subcommittee is 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, as well as from other Manitoba Hydro-related work in the area and to limit any potential negative impacts on the community.

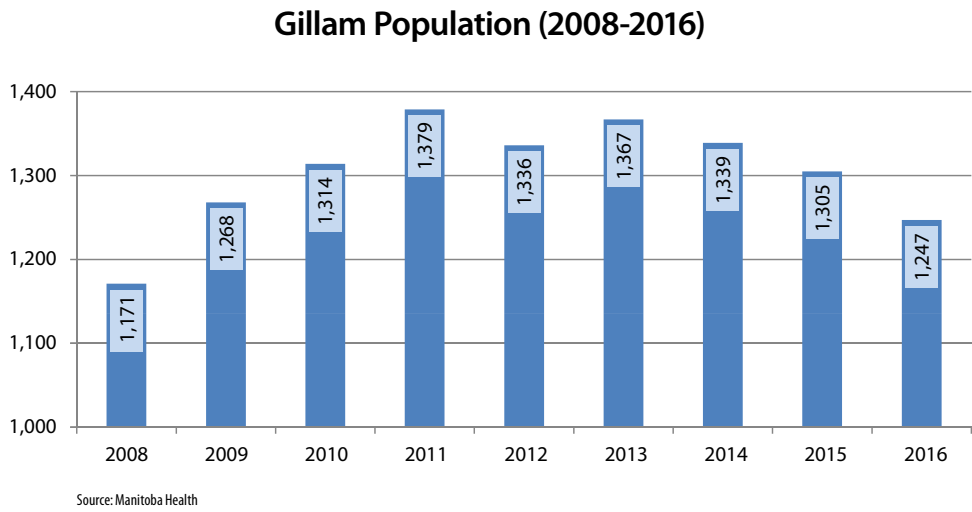
The subcommittee is intended as a forum for information sharing and communication for early identification of potential concerns, prevention of issues to the extent possible, and identification of ways to work cooperatively to address issues as they arise, including any related increases in the demand for services and accommodation in Gillam. Subcommittee members are Manitoba Hydro, Fox Lake Cree Nation, the Town of Gillam, the RCMP (Gillam Detachment), the Gillam hospital, and the Gillam School.



The subcommittee met three times in 2017-18 to continue monitoring and discussing potential Project impacts on the residents. Regular subcommittee meetings; ongoing communications between members; and a system to track community concerns and incidents led to action being taken to address concerns related to public safety, community services and infrastructure. This included topics such as local road conditions and traffic safety; use of Gillam services and facilities; the behaviour of non-local persons; and the presence of drugs in the Gillam area.

Examples of various ongoing site and Partnership activities discussed by the subcommittee to build understanding and awareness of efforts that have an offsetting benefit to the community include:

- Developing a “PR 280/PR 290 Task Force” transportation management plan to reduce the impacts of project traffic on the road;
- Hiring a nurse practitioner to provide onsite health care services at the Keeyask site to reduce worker time away from site and thereby resulting in a reduction of non-urgent visits by Project workers to the Gillam hospital;
- Revising the Drug and Alcohol standard to enhance workplace safety, reduce unnecessary leaves and/or removals from site and expanded treatment options to include community based treatment and recreational drug education programs;



- Relocating contractor charters from Gillam to Thompson to assist with contractor scheduling, which resulted in a reduction of congestion and flight schedule issues at the Gillam airport; and
- Continuing FLCN’s implementation of cultural awareness training for short-term contractors.

The information provided by subcommittee members will continue to be used to assist in identifying potential measures to reduce the impacts of hydroelectric development in the region.

Housing, Infrastructure and Services

The EIS predicted minimal population migration into the partner First Nations during Project construction. Therefore, it was anticipated that little new demand for housing, infrastructure and services in the partner First Nation communities and in Gillam would be required during Project construction. One-time Key Person Interviews are being conducted to identify any apparent Project effects on housing, infrastructure and services in the partner First Nations’ communities. Interviews have been completed by FLCN and YFFN. Manitoba Hydro and FLCN continue to work together to summarize the findings related to their community. Discussions regarding design and implementation are underway with both TCN and WLFN.

The interviews completed by YFFN document that since 2012, the community has observed an increased demand for childcare and housing as well as requests to transfer to YFFN band membership. Alcohol and drug use was identified as a growing concern in the community, and members identified a need for increased enforcement and community services to support prevention and treatment at the community

level. The interviews also documented recent challenges in recruiting and retaining qualified staff for community positions. Identified positive Project effects include the increase in wage employment for YFFN families, leading to a decrease in reliance on income assistance in the community. One acknowledged limitation of the interview program is the difficulty in separating out the effects from Keeyask and those resulting from other sources. However, discussions regarding many of the key findings of the interviews are underway at the community level and in forums related to the Project.

Worker Family Survey

The Keeyask EIS noted some uncertainty about how the employment experience during Project construction would affect workers and their families. To address this uncertainty, a worker and family survey is being undertaken to assess the experiences of a sample of partner First Nations’ members employed on the Project and their families. The purpose of the survey is to better understand the effects (positive and negative) the Project has on workers from the partner First Nations, their families and their communities as a whole. The worker family survey covers a wide range of socio-economic topics, including work and camp life, employee experience with measures taken to create a positive workplace culture at site, employee experience with the unions, family experience, effects of employment on traditional activities, and community changes as a result of the Project. Over this past year, Manitoba Hydro and the partner First Nations worked towards the development of survey instruments and survey methodology. It is anticipated that surveys of current and past employees, and their family members, will occur over 2018.

Social Mitigation

Responding to Community Concerns

Over this past year, concerns were raised by the partner First Nations that the Project has contributed to an increase in the presence and use of drugs and alcohol in the region, including at the Project site and at the community level. The Drug and Alcohol program at Keeyask provides the opportunity for treatment where addiction is present. The treatment for addiction not only supports a safe working environment, but also improves the lives of the individuals and their families. Manitoba Hydro and each of the partner First Nations have had discussions on what supports can be provided at the community level to mitigate any potential increase in drugs and alcohol associated with the Project. These discussions are ongoing.

The partner communities have also raised concerns regarding possible cases of sexual exploitation at the Project site, as well as at the community level. Discussions have subsequently occurred with provincial representatives working in the field of sexual exploitation prevention to discuss what supports can be provided at the Keeyask site and within communities to address concerns about sexual exploitation. This includes discussion around training and communication materials for the Project site, and possible programming options at the community level.

Travel and Public Safety

Provincial Roads

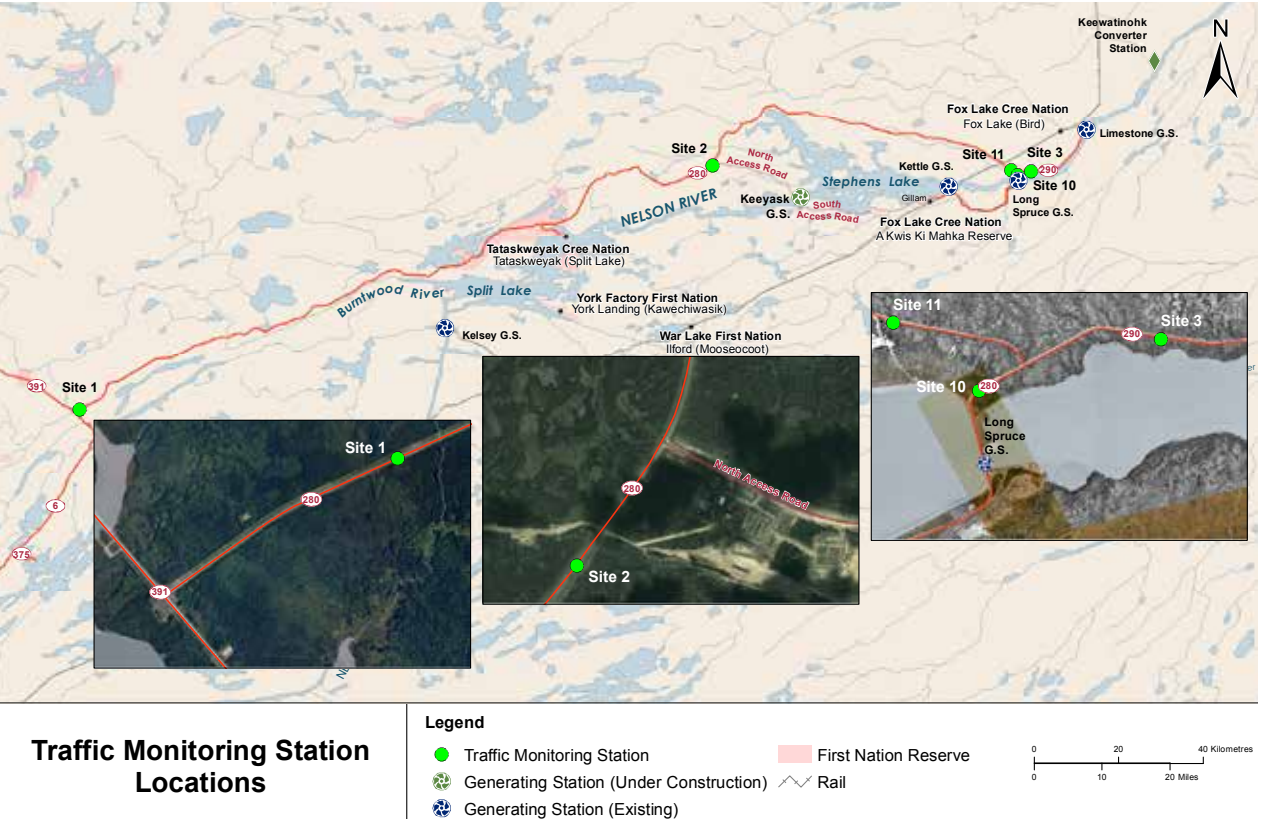
While the EIS predicted that existing transportation networks and plans for Provincial Road (PR) 280 upgrades would be able to accommodate the changes in road use associated with Project construction, community concerns remain regarding traffic safety and road conditions and they were raised in a number of forums.

In response to community concerns, the Province, which is responsible for maintenance and upgrades to PR 280, established the PR 280 Joint Advisory Committee in the fall of 2014. The committee is comprised of representatives from the Province of Manitoba, Manitoba Hydro, the Town of Gillam and the partner First Nations’ communities to provide the communities involvement in the planning of upgrades to PR 280. In the period between April 2017 and March 2018, the PR 280 Joint Advisory Committee met in April, May and December 2017.

A number of mitigation measures were adopted to reduce the impact of Project traffic on PR 280 including road reconstruction and increased maintenance efforts, operation of the Provincial Trunk Highway (PTH) 6 weigh station near Thompson, and communicating driver expectations to contractors in an effort to promote appropriate driving behavior on PR 280.

In the fall of 2016, Manitoba Hydro developed a comprehensive, transportation management plan to reduce the impacts of Project traffic on PR 280. The plan includes pre-hauling construction materials to site during the winter months, night hauling, reductions in Manitoba Hydro truck traffic and reductions in truck weights during periods when the road has deteriorated substantially. The plan will help reduce wear and tear on the road and allow Manitoba Infrastructure (MI) to focus on areas requiring increased maintenance.

Manitoba Hydro, in collaboration with MI and the RCMP, will continue to monitor traffic volumes, speeds, and vehicle types on PR 280 and PR 290.



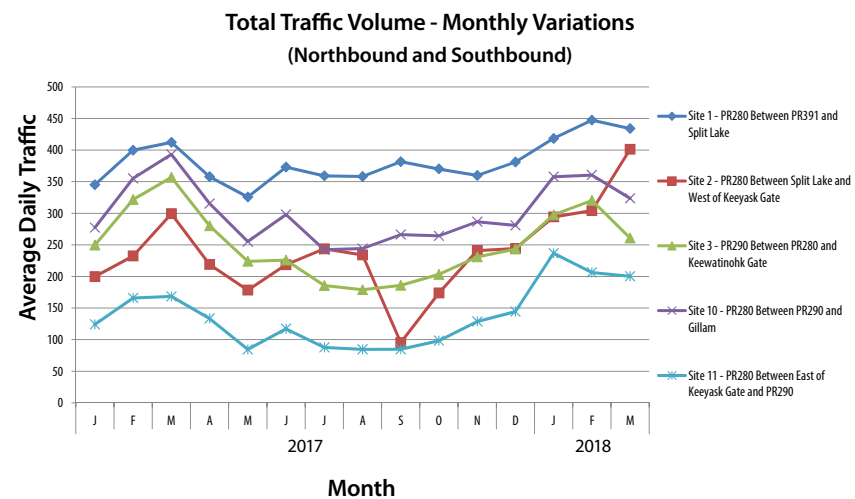


A fuel tanker on the North Access Road

Traffic Volumes

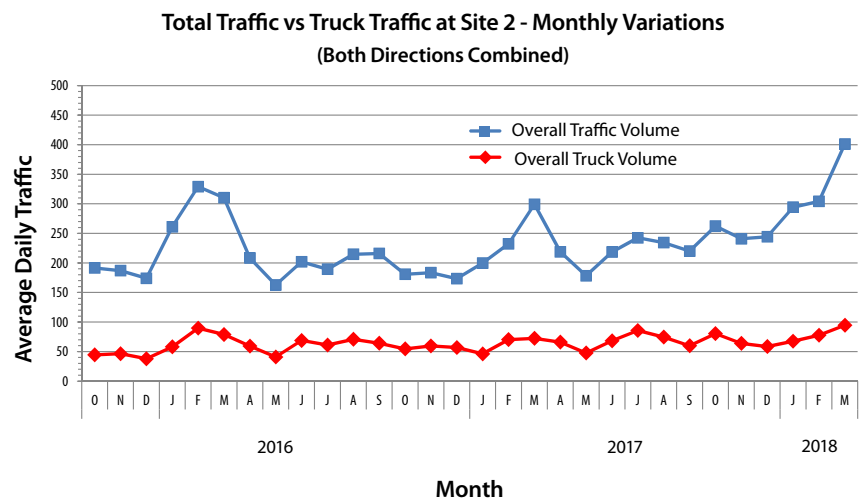
Traffic volume data is typically collected by MI every two years. Traffic data for PR 280 is divided into three segments: PR 391 to Split Lake, Split Lake to the PR 280/PR 290 intersection, and PR 280/ PR 290 intersection to Gillam. Use of PR 280 and PR 290 has steadily increased since 2003. A larger increase in use has been observed since the start of construction on the Project, as anticipated.

To better understand traffic patterns during construction, Manitoba Hydro worked with MI to have five, permanent traffic counters installed on PR 280 and PR 290. The traffic monitoring counter locations are shown on the map included. The segment of PR 280 with the highest traffic volumes is between PR 391 and Split Lake where from April 2017 to March 2018, the average traffic counts (northbound and southbound combined) were 391 vehicles per day. Of the 391 vehicles per day, 74 were large trucks.



Collision Information

Collision rates along PR 280 and PR 290 have remained below the industry standard threshold of 1.50 million vehicle-kilometres of travel (MVKT). Collision rates are a factor of annual average daily traffic (AADT), road length and reported collisions. Spot grade improvements, localized design considerations, and other road safety improvements are being implemented to address ongoing concerns and to improve the driving experience for all road users.



Keeyask Site Access

The Keeyask North Access Road connects PR 280 to the construction site. It is a private road with restricted access, which is controlled by a security gate near the PR 280/ North Access Road intersection. The gate office is staffed 24 hours per day, seven days per week and security staff document all authorized vehicles entering and exiting the road. On average, 125 vehicles per day used the road between April 2017 and March 2018. This is higher than in past years, reflecting the peak construction period and large workforce.

Traffic counts from the monitoring station located at PR 280 Site 2, which is the closest station to the Keeyask North Access Road, allows construction related traffic to be compared to the overall traffic on PR 280. Over the past year, these two sets of traffic counts indicate that the percentage of Keeyask related construction traffic varies monthly and accounts for 37 per cent to 61 per cent of all traffic on PR 280 near the PR 280/Keeyask North Access Road intersection.

When the Project is complete, the North and South Access roads will become part of a re-routed PR 280, which will cross the Keeyask Generating Station. This will provide a much shorter route from Thompson to Gillam.



Grader on the North Access Road



The security gate on the North Access Road near its intersection with PR280

Waterways Management Program

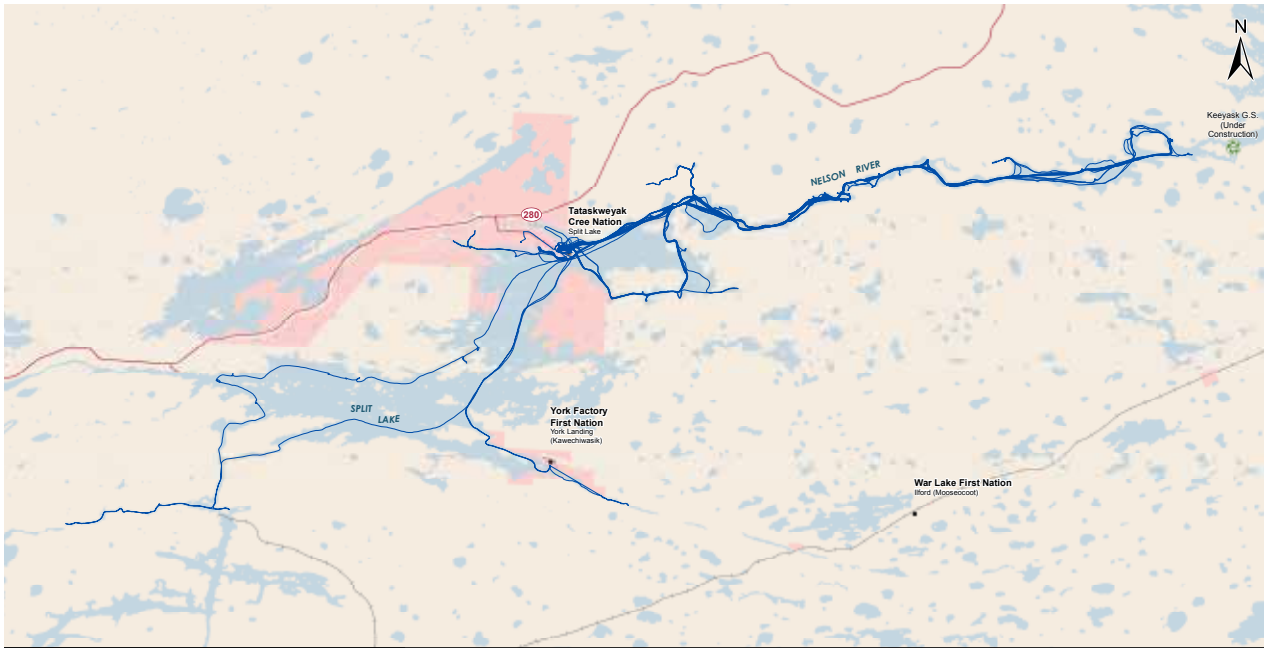
The purpose of the Keeyask Waterways Management Program (WMP) is to contribute to the safe use and enjoyment of the waterway from Split Lake to Stephens Lake throughout the construction and operational stages of the Project. The Keeyask WMP is currently implementing two safety initiatives focusing on safe water travel and safe ice travel. Through these initiatives, four members of the partner First Nations were employed to provide safe navigation on the waterways throughout the 2017-18 year. These community members bring traditional knowledge and a valuable understanding of the waterways as they spend much of their lives on the water. They serve as an information line between each community and Manitoba Hydro.

Boat Patrol

The Keeyask Boat Patrol Program ran for 24 weeks from the end of May to October 2017, and played a fundamental role in monitoring and minimizing the hazards caused by debris in the waterways. Throughout that time, the boat patrol crews travelled the length of the Nelson River routinely between the community of Split Lake and just upstream of the Project site at Gull Rapids and identified safe travel routes. The patrollers’ daily presence enhances safety for users of this stretch of the Nelson River. The total distance travelled during the program was over 5,200 kilometres. In addition to patrolling the waterways, the crews also provide support for emergency response, resource user requests for assistance, and general assistance to community members during the open water season.



Keeyask Waterways Management Program boat patrol

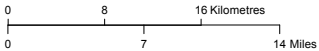


Keeyask Boat Patrol Routes

April 1, 2017 – March 31, 2018

Legend

- Boat Patrol Route
- Keeyask Principal Structures
- Access Road



Large floating debris is removed from the water by the boat patrol team

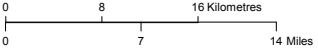


Keeyask Safe Ice Trails

April 1, 2017 – March 31, 2018

Legend

- Safe Ice Trail (Installed and Patrolled)
- Access Road
- Keeyask Principal Structures



Keeyask Safe Ice Trails

The safe ice travel initiative is part of the Safe Ice Trail Program, which is intended to provide safe travel on Manitoba Hydro regulated waterways during the winter months. During the winter season from January to April 2018, one partner First Nation local trap line holder and one helper were contracted to install, monitor and regularly maintain 100 kilometres of safe ice trails in and around Gull and Stephens lakes. The safe ice trail contractors conducted several monitoring trips along the length of the trails and patrolled approximately 811 kilometres throughout the winter season.



A safe ice trail being installed

Culture and Spirituality

Since the start of construction, various measures were put in place to support the retention of northern and Indigenous employees at the job site, and to ensure that sensitivity and respect for local culture is maintained throughout construction of the Project. These measures include orientation sessions for partner First Nation members, on-site Aboriginal Awareness Training for employees, voluntary counseling services and cultural ceremonies marking key construction activities.



National Aboriginal Day Ceremony

These activities and services are the responsibility of the Employee Retention and Support Services (ERS) staff who take great pride in providing a sense of support to all workers on the Project. They are passionate about ensuring that all who work on the Project understand the history and culture that is a part of the Project. ERS staff member, Alex Beardy says “...people who come work here will know who lived around here. That’s my role, to introduce us to where you are working, orientate you. We have a rich history here, there was a culture here before this Project became to be”.



National Aboriginal Day Ceremony - BBE and Manitoba Hydro management smudging with Employee Retention and Support Services (ERS) cultural coordinator Alex Beardy

KCN Site Member Orientation

Orientation sessions are delivered in the partner First Nation communities to prepare members for the construction camp experience and enhance their prospects of achieving the benefits from employment on the Project. The focus is on key factors that affect the economy, culture and social conditions of each community. This includes the historical and ongoing effects of hydroelectric development and relationships with Manitoba Hydro.

Aboriginal Awareness Training

On-site training workshops are provided for staff working at the Project site. In 2017-18, 163 training workshops were held with 2,756 participants. The purposes for training workshops are to:

- Increase the understanding and appreciation of cultural differences, beliefs and values of individuals within the various parties/communities working at the site;
- Enhance comfort in living, working and/or doing business in a culturally diverse environment;
- Identify barriers and issues between the various parties working at the site;
- Identify common goals;
- Develop strategies and action plans for addressing issues/barriers, reaching common goals and developing and maintaining long-term harmonious relationships;



One of the on-site activities held on National Aboriginal Day

- Increase participants’ understanding of contemporary issues facing Indigenous peoples;
- Challenge participants to re-think their assumptions and personal biases about Indigenous peoples;
- Provide participants with information that will promote understanding and respect of Indigenous cultures, enabling participants to work effectively with Indigenous peoples; and
- Increase participants understanding of what a harassment-free work environment means and what each individual’s responsibilities are to maintain a work environment that is safe for all.

On-site Counseling

On-site counseling is available to help all employees, on a voluntary basis, to deal with any issues experienced while working on the Project. This could include work adjustment problems, vocational/career issues, cultural adjustments, family stress, money management, and alcohol and narcotics anonymous. The intent is to increase retention of all Project workers, but particularly for Northern Indigenous workers of Cree heritage, by assisting them in dealing with challenges directly affecting their work performance.

Cultural Site Ceremonies

Site ceremonies are being held at key construction milestones to help mitigate the effect of the Project on partner First Nations’ culture, and to demonstrate respect for the land and all that is supported by the land. Attendance at ceremonies is welcome and voluntary and consists of various community members at large, staff of the contractors and Manitoba Hydro. Between April 2017 and March 2018, there were eight ceremonies held including a spring ceremony, Elder’s dinner, sturgeon ceremony, spillway structure blessing, National Aboriginal day celebration, and release of sturgeon fingerlings prayer and tobacco offering.



Employee Retention and Support Services staff from left to right: Danielle Beardy, Amanda Ouskan, Alex Beardy

Sweat Lodge

As a result of the KWCA, a sweat lodge and teepee area was set up at Keeyask in September 2017. Since that time, numerous sweat lodge ceremonies were held to accommodate both night and day shift workers. The sweat lodge is a circular, dome-shaped structure used for many purposes in Indigenous culture. Through ceremonies, it offers a way of clearing, cleaning and freeing obstacles, obstructions and blockages to healing and well-being. During a purification ceremony, participants talk with and listen to the Creator and Grandfathers for guidance. There are similarities between the physical body and the sweat lodge. Your skin is like the sweat lodge cover; ribs are like the willows; the heartbeat is like the drumming; songs are your life lived.



Cutting wood for the sweat lodge and teepee

Heritage Resources

During development of the Project, everyone is to be alert for the possibility of discovering or disturbing human remains or heritage objects. Work is stopped immediately if this occurs to ensure what is found is safeguarded and managed properly. No human remains or heritage artifacts were found between April 2017 and March 31, 2018 at the construction site.

To protect heritage resources, the Project’s archaeological team continued the monitoring and mitigation of known archaeological sites. The team visited the Project area in June, August and September. In August, the Project archaeologists, along with members from TCN and FLCN and Manitoba Hydro’s environmental staff, excavated Kahpowinick Bay House (HbKv-07), a mid to late 1800’s fur trade post. The entire interior of the cabin was excavated and additional digging was undertaken just outside the cabin walls.

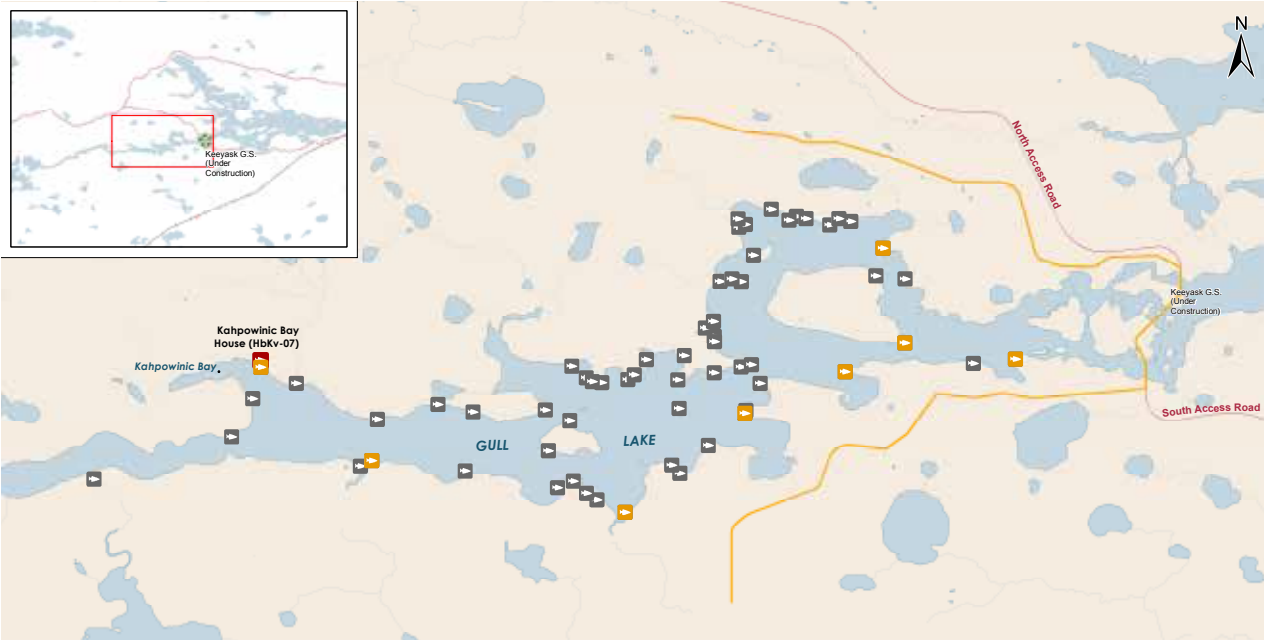
Over 4,000 artifacts were recovered from HbKv-07 (959 artifacts and 3,512 animal remains). An additional 85 (83 artifacts and 2 animal remains) were collected from shoreline recoveries at HbKu-04, 05 and 06. All of the artifacts were cleaned, analyzed, catalogued and prepared for submission to the Manitoba Historic Resources Branch. Interesting finds included musket balls, a bone handled knife, various colours of seed beads, and a red, clay smoking pipe bowl. The total number of artifacts collected during the Project mitigation program (2014-present) is 13,172 (7,329 artifacts and 5,843 animal remains).



A fur trade axe head found during excavation work



Members from TCN, FLCN and Manitoba Hydro environmental staff at the Kahpowinick Bay House (HbKv-07) excavation



Heritage Protection and Mitigation Fieldwork

April 1, 2017 – March 31, 2018

Legend

- Mitigated Archaeological Site (2014-2016)
- Archaeological Site to be Mitigated
- Mitigated Archaeological Site (2017)

0 1.5 3 Kilometres
0 1.5 3 Miles

Mercury and Human Health

Mercury is a metal found naturally in small amounts in rock, soil, water, living organisms, as well as in manufactured products. Flooding of soil or wetlands commonly results in a temporary increase in mercury and its organic form, methylmercury. Methylmercury is taken up by the organisms that live in and use those environments. Bacteria living, for example, in soils and water change inorganic mercury to organic mercury or “methylmercury”. This type of mercury builds up and becomes more concentrated at higher levels in the food web, such as in predatory fish.

The vast majority of mercury exposure to people occurs through the consumption of fish. When fish high in mercury are eaten, particularly large and long-lived predatory fish, there is a potential for a negative effect on human health. There is also a potential for a negative effect on health and wellness if people limit their consumption of healthy fish due to a fear of mercury.

As a result of past experience with hydroelectric development, the partner First Nations raised the issue of mercury and human health as a primary concern in relation to the Project. Potential impacts, mercury and human health risk management and wellness enhancement strategies are the subject of considerable study and long-term planning by the Partnership.

Mercury in fish was monitored in Gull Lake in 2014 and 2016 to determine the amount of mercury in the fish prior to flooding. Levels found in Northern Pike, Walleye and Lake Whitefish were similar in both years, which means there has been no change caused by construction to date. The majority of mercury monitoring in fish will occur in the operational

phase because Project effects in the reservoir, and to a lesser extent in Stephens Lake, are predicted to occur after flooding. Mercury levels in fish from Gull Lake are expected to peak three to seven years after impoundment and then to decline over the next 20 to 30 years until they reach pre-Project levels or stable concentrations.

The partner First Nations also raised concerns about mercury levels in traditionally used plants. To address those concerns, plant sampling and analysis for mercury content is occurring prior to flooding. After flooding, more plants will be sampled and tested, to compare with those collected prior to flooding.

The first pre-flooding sampling occurred in 2017. Two types of blueberries and bog Labrador tea samples were collected. No mercury was detected in any of the blueberry samples. Mercury was detected at very low levels in most of the Labrador tea samples.

The Partnership has prepared a Mercury and Human Health Risk Management Plan in consultation with provincial and federal regulators. The plan includes:

- Monitoring of mercury in fish, wildlife and plants;
- Voluntary hair sampling and wild foods survey of First Nation community members;
- Human health risk assessments; and
- A communication strategy for partner First Nation communities, Gillam, and other users of fish in affected waterbodies.

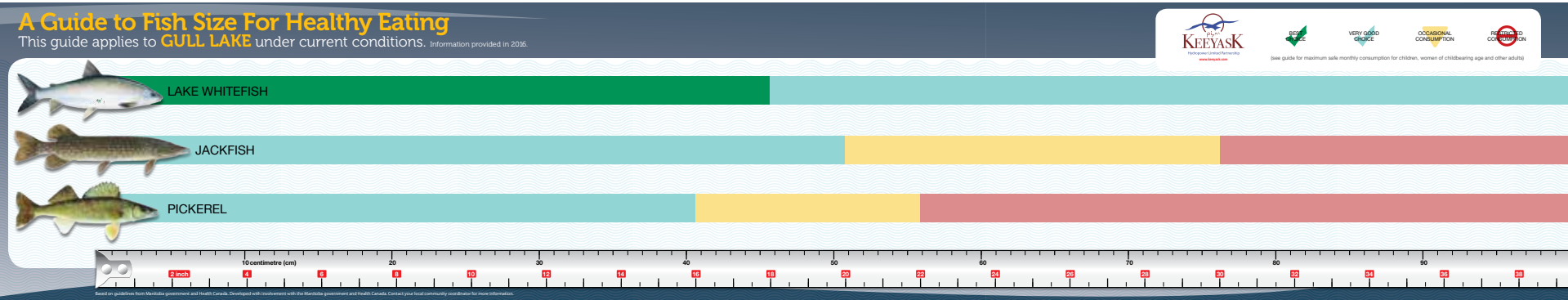


Example of communication product



A blueberry plant found near the Project site was tested for mercury

The goals of the risk management plan are: to support discussion and build understanding around mercury and fish; to allow individuals and families to confidently assess and manage the benefits and risks associated with eating wild fish in the Project area; and to support and enhance local practices of fishing for sharing and eating wild fish at levels that are healthy for all community members. The Mercury and Human Health Implementation Group (composed of the partner First Nations, Manitoba Hydro, and provincial and federal health specialists) is responsible to implement risk management activities. This year's key activities included: updating fish consumption guidance (communication products) to reflect recent fish monitoring results; hiring mercury community coordinators in each of the partner First Nation communities and a consultant to undertake hair monitoring and food surveys, and preparing for community-based risk management activities.



2018 fish consumption guideline for Gull Lake (not to scale)

Water Flows, Levels and Ice

Water level and ice regime monitoring continues to take place throughout the study area. Water levels increased in Gull Rapids and upstream due to construction of in-stream works in 2014 as anticipated and these effects continued in 2017.

The spring of 2017 saw very high flows peaking in mid-May on the Nelson River as a result of high amounts of snowfall and wet conditions, including a blizzard in March 2017 across northern Manitoba. Split Lake outflow was estimated at a record high of over 6,500 m³/s during the peak. Water levels on Gull Lake reached within 2.5 m (8 ft) of the future Keeyask reservoir full supply level (159 m). Flows remained relatively high throughout the summer before dropping to near average conditions in the fall. The negative effects of record high flows and water levels on Split Lake were very concerning to TCN and YFFN and were raised in a number of forums.

2017-18 saw the earliest date for ice development on Gull Lake since construction started. By late winter, the ice cover had moved up through Birthday Rapids, which was also observed in 2015-16 and 2016-17. Upstream of Birthday Rapids typically stays open during the winter, but there were years prior to the Project's construction where the ice cover advanced upstream of Birthday Rapids. Factors that influence the advancement of the ice cover are river flow, air temperatures and date of the initial formation of the ice cover.



Ice extending into the trees during winter high water levels



High flows near the Project site in spring 2017

Water Quality

Water quality is important to people and for the health of plants and animals that use it. The greatest effects of construction on water quality relate to increasing the amount of sediment, such as sand and clay, in the Nelson River. The sediment can come from building structures in the river (e.g. cofferdams), from riverbanks that erode because of changing water levels or loss from the land where the vegetation was cleared.

At Keeyask, as a condition in the Environmental Protection Plan (EnvPP), water that is pumped from the site to the river must contain less than 25 mg/L of total suspended solids (TSS), which is a measurement of the amount of sediment that is carried in water. In 2017, approval was provided by the regulator to change the EnvPP to discharge impounded water with TSS up to 50 mg/L at designated discharge locations. This change was required due to the expected difficulties in managing the spring melt resulting from the large snow fall in March 2017. It was also needed to handle the challenges previously experienced while attempting to dewater areas behind cofferdams due to seepage, anticipating there would be similar issues in future construction seasons. When the TSS exceeds this limit, it is treated by being pumped either into a settling pond or into thick vegetation on land where it seeps into the ground and the sediment filters out. Increasing the concentration to 50 mg/L of TSS has no measurable effect on water quality and aquatic life in the Nelson River.

Besides monitoring sediment in water pumped away from the construction site, sediment in the river is monitored constantly during construction using in-stream sensors. Some of these sensors provide



A Manitoba Hydro Environmental Inspector sampling the water discharged from the Central Dam Cofferdam



A sensor suspended from a platform to measure the sediment in the water



Kathleen Dawson conducting water quality sampling



Clayton Flett (TCN) conducting water quality sampling

Benthic Invertebrates

Benthic invertebrates are young insects, clams and worms that live on the sediment at the bottom of rivers and lakes. They are an important source of food for fish, including Lake Sturgeon. When the numbers and kinds of invertebrates change, it may be a sign that changes are happening in the river. Benthic invertebrates are collected at three locations downstream of the construction site each year, and the numbers are compared to samples collected in previous years. In 2017, there was no change in benthic invertebrates due to construction.



Benthic invertebrates sampling with an Ekman dredge

Zebra Mussels

Zebra mussels are small, clam-like mussels that are aggressive, non-native, aquatic invasive species (AIS) that are now found in Manitoba’s waterbodies. Federal and provincial legislation came about in 2015 to contain and prevent the spread of zebra mussels, which have been found in Manitoba’s southern water bodies that connect to the Nelson River. Although not found to date at the Project site, the partner First Nations and Manitoba Hydro are aware of the risks associated with introducing zebra mussels to the Nelson River and precautions are being taken to ensure that the Project does not contribute to the spread of this AIS.

During the 2017 open-water season, three artificial substrates were submerged in Gull Lake to monitor for zebra mussel growth/colonization, and in-water infrastructure, such as a safety boom and buoys, were inspected upon removal for zebra mussels. No zebra mussels were detected. Additionally, water samples were taken and analyzed at a lab to see if microscopic zebra mussel larvae (veligers) were present. As expected, none were found.

To prevent the spread of AIS, decontamination of watercraft/water-related equipment that is used in a provincially-designated control zone is required. This is to ensure AIS are killed and removed before watercraft

and water-related equipment are placed into a different water body. The Nelson River (including Gull Lake and Stephens Lake) is a provincially-designated control zone therefore decontamination must occur. A hot water decontamination unit was installed at the Project site in 2016. In 2017, all incoming and outgoing watercraft and water-related equipment were inspected for the presence of zebra mussels and decontaminated, where required. During the reporting period, thirty-four inspections were conducted and nine hot water decontaminations were performed.



Watercraft inspection for zebra mussels



Project site staff installing artificial substrate to monitor for zebra mussels in Gull Lake



Zebra mussels found on a beach in southern Manitoba

Fish

Monitoring studies are focused on three fish species: Lake Sturgeon, Lake Whitefish and Walleye, because of their importance to the partner First Nations, and because construction and operation of the Keeyask Generating Station will change or destroy habitat they use. Spawning habitat at Gull Rapids, which is used by all three species, is being lost due to construction of the generating station. Reservoir impoundment will raise water levels, which will change Lake Sturgeon spawning habitat at Birthday Rapids and may change Lake Sturgeon young-of-the-year (YOY) habitat. (YOY are fish that are less than one year old.) Altered flows into Stephens Lake may increase the risk of dewatering Lake Whitefish eggs in Stephens Lake.

The goal of the Partnership is to create a self-sustaining population of Lake Sturgeon, and to maintain the current self-sustaining Lake Whitefish and Walleye populations both above and below the generating station. To achieve this, replacement spawning habitat for all three species will be constructed and available once construction is complete. Habitat in Birthday Rapids and Stephens Lake will also be monitored and enhanced for Lake Sturgeon, if required. Depending on monitoring conducted during the operational phase, YOY fish habitat may also be constructed in the future Keeyask Reservoir, if required.



Stephens Lake yearling stocking in October 2017



Martina Harvey (TCN) with a juvenile Lake Sturgeon in September 2017



Field team conducting adult Lake Sturgeon population estimates

Lake Sturgeon Populations

Lake Sturgeon (Namao in Cree) are being monitored because of their importance to the partner First Nations, because populations in Gull and Stephens lakes were low before the Project and the generating station will change or destroy habitat. Both adult and juvenile Lake Sturgeon are being monitored to see how many adults are spawning and how juveniles produced in the wild contribute to the population.

During 2017, 354 Lake Sturgeon (298 adults) were caught in the Upper Split Lake Area (which includes Split Lake, the Burntwood River and the area downstream the Kelsey Generating Station (Kelsey GS). Biologists used this number to estimate there were 561 adult Lake Sturgeon in the Burntwood River area and 592 adult Lake Sturgeon in the Kelsey GS area in 2017, which is similar to previous years. Annual survival (the percentage of fish that survive from one year to the next) of Lake Sturgeon was estimated to be higher in the Burntwood River compared to the Kelsey GS area. Annual survival in the Kelsey GS area is also lower than survival of the Lake Sturgeon population in the Clark Lake to Gull Lake stretch of the Nelson River and is of concern regarding the sustainability of sturgeon stocks at this location.

Juvenile Lake Sturgeon are typically between one and ten years old and less than 800 mm in length. In 2017, juvenile population monitoring took place in the Upper Split Lake Area, the future Keeyask reservoir (currently Gull Lake) and Stephens Lake.



Tim Flett (WLFN) with an adult Lake Sturgeon in June 2017



Kelvin Kitchokeesik (TCN) holding a juvenile lake sturgeon

A total of 59 juvenile sturgeon of different ages and sizes were found in the Upper Split Lake Area, including three YOY, and three fish raised in the Grand Rapids Hatchery and stocked as one-year-olds in 2014 (now four years old). A total of 173 juveniles were caught in the future Keeyask reservoir, including two YOY and 21 hatchery raised fish (the age range was one to four years old). In Stephens Lake, 148 juveniles were caught, including five YOY and 51 hatchery raised fish (33 one year olds and 18 three year olds). It is very likely that the five YOY fish are the result of spawning at Gull Rapids, just downstream of the construction site. The continued presence of YOY and hatchery raised fish indicates that Lake Sturgeon continue to successfully reproduce in the wild and hatchery fish are able to survive in the wild.



YOY Lake Sturgeon in Gull Lake in September 2017

Lake Sturgeon Stocking

The Partnership committed to produce hatchery reared Lake Sturgeon for release (stocking) into the Burntwood River, Gull Lake/the future Keeyask reservoir and Stephens Lake until self-sustaining populations are achieved. Stocking is underway and alternates annually between the Burntwood and Nelson rivers. Each year, wild, spawning male and female Lake Sturgeon are captured and held at a river-side spawn camp. The milt (sperm) and eggs are collected and mixed to produce fertilized eggs. These eggs are taken to the Grand Rapids Fish Hatchery, where they are cared for. As the space available to rear fish is limited, as many fish as possible are kept in the hatchery to grow for up to a year, and the extra larvae are released back into the river from which their parents came.

A total of 1,183 one-year-old Lake Sturgeon were released into the Keeyask area in 2017. In June, 937, one-year-old Lake Sturgeon were stocked into the Keeyask area (463 in the future Keeyask reservoir, 474 in Stephens Lake). Fifteen of the fish stocked into Stephens Lake were released from the Butnau Marina during an event organized by the Kischi Sipi Namao Committee (KSNC). Approximately 30 members from TCN, FLCN and WLFN participated. In October, another 246, one-year-old Lake Sturgeon were stocked into Stephens Lake. FLCN staff involved in the community's ATK monitoring program assisted at this stocking event.



Sturgeon eggs collected at the spawn camp



Male sturgeon at the spawn camp in June 2017



Fertilizing Lake Sturgeon eggs at the Burntwood River spawn camp in June 2017



Stephens Lake yearlings being stocked in October 2017

In the spring of 2017, milt and eggs were collected from five males and two females captured in the Burntwood River downstream of First Rapids. Of the approximately 234,000 eggs fertilized, about 103,000 larvae hatched. Larvae hatched from the eggs of just one of the females. Unfortunately, the eggs from the second female did not develop. Several weeks following the spawn camp, the second female was found dead. It is unclear why the mortality occurred, as new procedures were implemented following the 2016 spawn camp and both females appeared healthy at the time of release. As a result, field staff are continuing to assess procedures and adjust methods in order to avoid future mortalities.

Due to the large number of larvae in the hatchery, over 70,000 larvae (one month old) were released at the base of First Rapids in July with another 3,765 fingerlings (four months old) released into the Burntwood River in October. The KSNC arranged an event for YFFN students and Elders to participate in the fingerling release at the Orr Creek boat launch. A total of 750 Lake Sturgeon fingerlings were kept at the hatchery over the winter and will be stocked into the Burntwood River in the spring of 2018.



Barry Flett (TCN) releasing a Lake Sturgeon at the spawn camp in June 2017



Joanne Lavallee (FLCN), Impact Assessment Unit staff, holds a sturgeon yearling prior to release in October 2017



Burntwood River fingerling stocking event in Oct 2017

Fish Movements

Fish movements are being studied to find out if fish are avoiding the Project construction area and if fish are moving over Gull Rapids during construction in order to live their life. Movements are tracked using acoustic tags surgically implanted inside the fish. These tags send out a unique signal called a “ping”, which is detected and recorded by over 50 devices (called acoustic receivers) placed in the Nelson River between Clark Lake and the Limestone Reservoir. By looking at the “pings” recorded by receivers in different places,

the movement of each tagged fish can be followed. Over 200 fish are currently being tracked. The group of tagged fish is made up of both adult and juvenile Lake Sturgeon, Walleye and Lake Whitefish.

So far, monitoring has shown that each Lake Sturgeon has a place where it likes to live and most do not move great distances. At times, adult sturgeon may move to a different place, most often during the spawning period. Construction at Gull Rapids does not appear to have affected the movements of adult sturgeon and many continue to use the area just upstream and

downstream from Gull Rapids. The majority of juvenile Lake Sturgeon tagged in Stephens Lake were detected at some point near the base of Gull Rapids. Most spend the open water period in that area, which could make them more vulnerable to construction effects such as sediment. In contrast to the adults, juveniles tagged in Gull Lake do not use the upstream area close to the rapids/construction.

During construction, Walleye and Lake Whitefish tagged in Gull Lake have not used the area immediately upstream of Gull Rapids near the construction site. Many Walleye and Lake Whitefish tagged in Stephens Lake continue to use the area at the base of Gull Rapids, including during the spawning period for both species, but they do not appear to be disturbed by construction.

Six adult Lake Sturgeon have moved downstream through Gull Rapids since the start of construction. No juveniles have moved downstream. There was an increase in the number of Walleye that moved downstream during the last two years, which is believed to have been due to stress on the fish from the tagging surgery in 2016 and very high flows on the Nelson River in 2017. Only two Lake Whitefish moved down through the rapids since monitoring began in 2015.

Since 2011, six adult Lake Sturgeon and a single Walleye (tagged in 2013) moved upstream through Gull Rapids. All of the upstream movements took place prior to construction and no other fish have moved upstream since. It is believed that upstream movement is no longer possible for fish because of the high river flows passing through a more constricted area after constructing cofferdams part way across the river.

Fish Salvage

Areas that become isolated from the river by cofferdams have the water pumped out so that Project structures can be built in the dry. Before all of the water is pumped out, fish must be captured and released back into the river. In July 2017, there were some isolated pools of water that remained behind the cofferdams. During dewatering activities, fish were found in some of these isolated pools. Environmental site staff captured 156 live fish using dip nets. The fish were released to the river safely away from construction activities. There were no Lake Sturgeon captured.

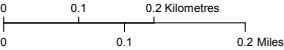


Fish Salvage Area (EMPA 19)

April 1, 2017 – March 31, 2018

Legend

◆ Fish Salvage Location



Reservoir Spawning Shoals

The Project will change or destroy some of the habitat where fish feed, grow and reproduce. To “offset” what is lost, some new habitat for fish is being created.

Flooding the Keeyask reservoir will change the habitat in Gull Lake that is currently available for Walleye and Lake Whitefish. In 2018, three hectares of rocky shoals were constructed in the future Keeyask reservoir area to offset this loss. Once flooded, the shoals will provide areas for these fish to feed, spawn and grow.



Terrestrial Habitat and Plants

Terrestrial habitats are the areas where plants and animals live. During construction of the Project, there is a consistent effort to reduce the effects on the terrestrial habitat. To verify the Project effects on plants and soils in the area, terrestrial habitat is being monitored.

Sensitive Sites

One of the ways that Project effects are being minimized is by making sure environmentally sensitive sites are not disturbed during clearing or other activities. Before starting any clearing, a walk-through with the contractor and environmental site staff occurs. Purple flagging tape is put up to clearly mark the areas that are not to be disturbed. To date, less than three per cent of the sensitive site area has been cleared or disturbed, which is within the range of expected Project effects.



A biologist conducting a sensitive site survey at Looking Back Creek near the North Access Road



Reservoir clearing south of the Nelson River, looking northeast towards the Project site

Habitat Loss

Habitat loss is being monitored to determine effects from clearing or other construction disturbances. As of September 2017, terrestrial habitat mapping showed approximately 5,297 ha was cleared or disturbed for the Project, which is just under half of the land area in the total Project footprint. Most of the clearing that occurred during 2017 was within the future reservoir area, the north and south dykes, and excavated material placement areas.

Some habitat types are considered priority habitat if they are rare or uncommon in the Keeyask region, are valued by people, or are very important to wildlife, such as caribou calving islands. The Project was expected to cause some loss of priority habitat. To date, Project clearing or disturbance has affected less than three per cent of the priority habitat sites, and there have been no unexpected effects to these important habitats. Surveys to document the amount of priority habitat affected by the Project will continue in summer 2018.

Priority Plants

Some plant species are important to the partner First Nations for food and cultural reasons, and/or are important for ecological reasons (e.g. rare species). These important plants are called “priority plants”. During each year of construction, additional surveys for priority plants occur before clearing new areas for the Project. When priority plants are found, they are photographed, flagged, and their locations are recorded.

In July 2017, priority plant surveys were done prior to clearing the Ellis Esker borrow area and along the nine kilometre access road, off of the South Access Road, that leads to the area. More than 30 Scheuchzeri’s cotton-grass plants, a species considered to be rare across the province as a whole, were found growing within the Ellis Esker access road corridor. It is likely that this plant is more common in the area than previously thought, due to the large number of plants found. For this reason, and because this cotton-grass is not a provincially very rare species, avoidance of these plants was not required. More surveys for this cotton-grass, in the surrounding area, will be done in 2018 to confirm that it is more common in the Project area than suggested by its provincial conservation ranking.

Other than the surveys for cotton-grass, no more priority plant surveys are expected to occur as all the planned Project clearing areas have already been searched.



Scheuchzeri’s cotton-grass growing along the Ellis Esker access road corridor

Spills in Disturbed Areas

Another way to reduce construction effects on the land is by having hazardous materials spill response plans in place to provide guidelines for spill prevention and responses to hazardous materials spills, including reporting and clean-up requirements for spills. At Keeyask, all spills, regardless of quantity, are reported and cleaned up. Between April 1, 2017 and March 31, 2018, there were 31 hazardous material releases of quantities that were reportable according to legislation. Manitoba Hydro notified regulatory authorities about all of these releases. The contaminated material was removed and soil or water samples were collected around each spill site to ensure regulatory guidelines were met during clean-up activities.



Collecting soil samples during a spill clean-up

Vegetation Rehabilitation

The Partnership is committed to rehabilitating areas disturbed by construction that are not required for operation. Rehabilitation includes planting trees, grasses and traditional plants that are native to the area, as well as facilitating natural plant regeneration.

The first efforts to rehabilitate forest habitat were implemented in 2016 when jack pine and black spruce seedlings were planted in areas no longer being used by the Project. These areas are along the North Access Road. In 2017, surveys found that all the planted black spruce seedlings were still alive. Planted jack pine seedlings also showed a 96 per cent survival rate after the first year. Additionally, natural regeneration of black spruce and jack pine was observed in over half of the planted areas.

In 2017, 47 cutlines and access trails that intersect with cleared Project areas were surveyed for evidence of natural plant regeneration. No tree planting had occurred on any of these trails prior to the surveys. Most of the surveyed trails (36 of the 47) had sparse to dense naturally regenerating trees and/or tall shrubs present, and in many cases the growth was dense.



Black spruce seedling

Wetlands

Wetlands are areas where the ground is either wet or often under shallow water. Wetlands are important for many reasons, including providing habitat for some plants and animals and providing hunting areas for moose and waterfowl. Some medicinal and food plants used by partner First Nations, such as tamarack and sweet flag (*wekes*, *wekas* or *wihkis* in Cree), are found in wetlands. Wetlands make up about 90 per cent of the land area in the Keeyask region. In the Keeyask region, a very important wetland type is the marsh because it is rare and is considered to be a high quality wetland. Marshes are surrounded by plants such as grasses and cattails, rather than trees.

In the summer of 2017, 12 marsh sites were surveyed because they were close to construction activities and had the potential for disturbance. To date, there have been no unanticipated impacts on the wetlands being monitored by this study. Erosion control or other mitigation measures have been recommended where there are potential future risks to marsh areas. Monitoring will continue in 2018 at wetlands close to construction areas.



Giant burreed collected for wetland seed

Wetland Development

Impounding the Keeyask reservoir will lead to the loss of 12 hectares of marsh wetland habitat. In order to compensate for the loss of this important wetland type, the Partnership committed to replacing it. In September, a variety of seeds were collected for the third year for future use to grow plants in the wetland nursery sites.

The nursery site constructed along the South Access Road was visited in September to see how the plants were growing. A mixture of wet meadow, shallow marsh and deep marsh species seed was spread along the entire length of the nursery site to enhance it, especially in those areas where Canada geese had grazed new plant growth from planting done in the previous year.



Stephanie Spence from FLCN seeding the wetland nursery site along the South Access Road



Seed spread over the wetland nursery site

Weeds

Weeds are plants not naturally found in a region, with the potential to cause damage to native ecosystems. Weeds are of concern because once they are introduced into newly disturbed areas they can quickly spread and may crowd out native plant species. Surveys are being done to determine how Project construction is affecting the type of weeds, how many are present, and to help decide what needs to be done to control them.

In 2017, weed surveys were carried out within most of the cleared Project areas. As expected, there was continued spreading of some weeds within these areas; however, weeds still cover a very small portion (less than one per cent) of the cleared areas. One new weed species (ox-eye daisy) was observed for the first time, and it was immediately removed and disposed of. Lamb's quarters remained the most abundant and widespread weed species in the cleared Project areas.

As in previous years, if a weed that spreads quickly (such as ox-eye daisy or scentless chamomile) was found, field staff removed and disposed of it immediately. This was found to be a highly effective method of controlling new weeds, so this measure will be continued in 2018. Overall, the herbicide spraying done in August 2016 did not appear to be effective. It may be that the herbicide was applied too late in the season. Monitoring the spread of weeds at the Project site will continue in 2018. Ultimately, vegetation rehabilitation of temporary Project areas will greatly reduce the distribution and abundance of weeds.



Weeds are manually removed and disposed to prevent spreading



Conducting an invasive plants survey along the South Access Road



Field staff recording ox-eye daisy in a Project work area



Lamb's quarters in a quarry area

Birds

There are more than 120 different species of birds found at or near Keeyask. Observations of birds at the Project site are noted by environmental site staff and other Project workers. In 2017, bird sightings at the Project site included Canada goose, common eider, common nighthawk, eagle, gull, mallard, pelican, ptarmigan, raven, red-tailed hawk, robin, sandhill crane, sandpiper, sharp-tailed grouse, snowy owl, swan, tern, and white-throated sparrow.

Pre-Clearing Nest Surveys

Most Project clearing is scheduled outside of the breeding bird nesting period between April 24 and August 25 to minimize effects to breeding birds. If clearing is required during the breeding bird nesting period, pre-clearing nest surveys are conducted. Two pre-clearing nest surveys took place in 2017. No nests or eggs were found during either survey and the clearing was allowed to proceed. The majority of Project clearing is now complete.



An area searched during a 2017 pre-clearing nest survey



A green-winged teal observed during waterfowl monitoring

Waterfowl

Waterfowl habitat in the area surrounding Keeyask is found along many waterbodies, including the Nelson River and Gull Lake. These areas often support migrating waterfowl in the spring and fall. Habitat for nesting and raising young is found in wetlands and along the shorelines of many ponds, creeks, rivers and lakes. Waterfowl, in particular Canada geese and mallard, are also an important food source for local First Nations’ members as they are abundant in the region during spring and fall migration.

Waterfowl monitoring is done to determine what changes occur to the number and location of Canada geese, mallard and other species of waterfowl due to Project construction. In 2017, waterfowl surveys took place in May, June, July and September. Twenty different species of waterfowl (including geese, ducks, swans, loons, grebes and cranes) were observed, with the most common species being Canada goose and four duck species - mallard, scaup, ring-necked duck and merganser. The overall number of waterfowl observed in 2017 was similar to the pre-construction and 2015 surveys. Construction does not appear to be limiting waterfowl’s use of habitat in the area close to the Project.



Adult bald eagle

Bald Eagles

Bald eagles are the most common raptor species along the lower Nelson River and are important to local people. Bald eagle nests are very large and are often reused for many years. Monitoring of bald eagles within the Keeyask region is taking place to identify bald eagle nesting locations, and to document how much habitat is lost or altered due to the Project.

In 2017, surveys for nesting bald eagles were done in May, June and July along the shorelines of selected waterbodies in the Keeyask region. A total of 97 bald eagle nests were observed. Overall, the bald eagle population appears to be stable in the areas close to the Project site, and is increasing in the surrounding region (between the Kelsey GS and the Long Spruce GS). One new nest was found within the Project footprint in 2017, in a treed area near a borrow pit; as future clearing is not anticipated near the nest, a treed buffer is in place between the nest and the borrow pit.

None of the five bald eagle nesting platforms, installed in February 2017, were observed to be used by bald eagles for nesting in 2017. This was expected, as the nesting platforms are located along the future reservoir shoreline and they are not likely to be selected by eagles until they are closer to the water’s edge. Monitoring of the platforms will continue into Project operation.



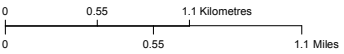
Bird Control Area

April 1, 2017 – March 31, 2018

Legend

- Tern Nesting Platform
- Gull and Tern Control
- Constructed Gull Nesting Habitat

- Cofferdam
- Dyke
- Dam
- Haul & Site Road



Gulls and Terns

The Project is being constructed in an area where colonial waterbirds (ring-billed gulls, herring gulls and common terns) traditionally nest. The rocky islands and reefs found in Gull Rapids can support hundreds of gulls and terns during the nesting season. Protection and mitigation measures are in place to stop gulls and terns from nesting in areas of active construction and to provide safe, alternate nesting habitat. Project monitoring documents the impacts of the Project in areas where gulls and terns nest, and on their numbers.

Protection

Since 2014, a gull and tern control program has been in place to discourage gulls and terns from nesting in active construction areas. The control program helps to protect workers, birds and eggs, as well as prevent property damage caused by nesting gulls and terns. Falconry, the use of trained birds of prey (raptors) to chase other birds, was used as the main control method. By flying the raptors in certain areas of the Project site where nesting by gulls and terns could cause damage or danger, the gulls and terns are encouraged to look elsewhere to nest.

In 2017, the gull and tern control program ran from April 29 to July 9. Under an Environment Canada permit, one ring-billed gull egg, three herring gull eggs and four herring gull nests were removed from the gull and tern control area. No gulls or terns were killed by raptors during the control program.



A peregrine falcon in the gull and tern control area



A congregation of gulls on an island at Gull Rapids

Monitoring

The number and locations of ring-billed gulls and common terns in areas expected to be affected by the Project and in areas away from the Project were monitored by helicopters and drones in June and July of 2017.

High water levels in the Nelson River system reduced the amount of gull and tern nesting habitat available in 2017, including at Gull Rapids where large colonies have previously occurred. Because of the high water, several islands in Gull Rapids were under water during the survey period and the remaining islands were partially flooded. Fewer gulls and terns used the islands in Gull Rapids in 2017 compared to 2015 and 2016. However, several islands upstream of Gull Rapids, including an island that had been cleared of vegetation for the Project, were available and were used by colonial waterbirds for nesting.

Gulls and terns attempted to nest on available habitat within Gull Rapids and at eight other locations in the study area in 2017, but the nests were abandoned and

no gull or tern chicks were seen. It is unclear why nests were abandoned, but it may have been a result of their susceptibility to storm-generated waves, crowding, or available food resources.

The high water levels in the Nelson River in spring 2017 also appeared to reduce the amount of gull and tern habitat use and overall productivity in the study area. The study area supported fewer gulls and terns in July 2017 compared to July 2016. There were also fewer ring-billed gull colonies and herring gull nest sites in the study area in 2017 compared to 2016 and 2015.

Mitigation

To mitigate the loss of gull and tern nesting habitat at Gull Rapids due to the Project, alternate gull and tern nesting habitat was created. An area on the south side of William Smith Island was cleared and developed in 2015 to create new gull nesting habitat. To date, the constructed gull habitat area has not been used by gulls for nesting; rather, the gulls have selected other available natural habitat for nesting.

To provide alternate nesting habitat for terns during the construction period, floating tern nesting platforms were installed near the Project site in 2015, 2016, and 2017. In 2017, one floating platform was installed on Gull Lake. Terns were recorded resting on the platform and one nesting attempt was made on the platform. The nest was abandoned before the eggs hatched for unknown reasons.

Project monitoring to date shows that both gulls and terns are able to find and use alternate, natural habitat for nesting in the region, including islands in Gull, Stephens, and Split lakes.



Floating tern nesting platform on Gull Lake

Bird Species at Risk

Olive-sided flycatcher, rusty blackbird and common nighthawk are all bird species that are federally protected under the Species at Risk Act. Monitoring took place in 2016 and 2017 to see if the noise and light from Project construction are affecting habitat use by these birds, by documenting where they are found and how many birds are present in different areas. Audio recorders were placed at 62 locations in common nighthawk nesting habitat in the Stephens Lake, Gull Lake, and Split Lake areas during the bird breeding season, and at 130 locations in olive-sided flycatcher and rusty blackbird breeding territories. Common nighthawk, olive-sided flycatcher and rusty blackbird were found to be widespread throughout the areas surveyed, including those close to the Project site.



Olive-sided flycatchers perching on a tree



Rusty blackbird on a spruce tree

Wildlife

There is an abundance of wildlife in the natural areas surrounding the Project. Wildlife interactions within the Project site are monitored on a daily basis by the environmental site staff and other construction personnel. Observations of wildlife at site in 2017 included arctic fox, black bear, beaver, caribou, ground hog, lynx, marten, moose, muskrat, otter, red fox, snowshoe hare, wolf, wolverine and wood frog. To reduce wildlife attraction to Project work areas, food waste is disposed of in wildlife-proof containers. As well, kitchen waste areas are surrounded by fences to limit access to wildlife. Project staff are reminded of the importance to not feed wildlife, and educational posters are put up at the construction site.



American marten



Arctic fox around Keeyask



Red fox on the construction site

Bears

Bear Relocations

Despite measures taken to reduce attractants to the Project site, bears are still sometimes present and pose a safety concern. Bear traps are set in consultation with the local Conservation Officer. In 2017, eight bear re-locations occurred from May to September by the local Conservation Officer.

Bear Den Surveys

Black bears use dens for birthing, rearing young and hibernating. Bear den surveys take place when the timing of planned Project clearing overlaps with den use. If any active dens are found during surveys, a marked buffer of 100 m is established around the den for protection.

In 2017, den surveys were conducted in October and November in areas within the Project footprint planned for clearing. About 515 ha were searched within a portion of the reservoir clearing areas on the south side of the Nelson River, along a proposed access road and a future borrow area on the Ellis Esker, the north dyke and excavated material placement areas. Surveys focused on areas with habitat types that had higher potential to be selected by bears for denning. No active black bear dens were found during the 2017 survey.



A light-coloured black bear observed near the construction site in May 2017



An inactive bear den found during the 2017 bear den survey



A bear proof garbage bin at the Main Camp

Frogs

Frog Habitat Replacement

Four woody debris piles placed in a borrow area off the North Access Road were monitored for use by frogs in July 2017. The debris piles provide a temporary frog habitat until vegetation in this area is re-established. While no frogs were found in the woody debris piles, one wood frog was found in a pond adjacent to one of the piles. This indicates frogs may be starting to use the piles for cover. Monitoring for use of the woody debris piles by frogs will continue over the next several years.



Wood frog found near woody debris pile in the KM-4 borrow area



Bat detector used to listen for little brown bats

Bats

Little brown bats are designated as an endangered species in Manitoba. Monitoring for little brown bats is occurring to see if there is a little brown bat population in the immediate Project area. Bat surveys, using a bat detector, took place over two nights in mid-July 2017. No bats were detected during the 2017 surveys and no bat observations have been reported to date.

Beaver and Muskrat

Beaver and muskrat are important species in the Keeyask region, as they have cultural, economic, and ecological value. As the future reservoir impoundment will flood habitat for these species, beaver and muskrat are being humanely trapped from within the future reservoir area to reduce the winter mortality that would likely occur. This mitigation measure is designed to minimize the distress of these furbearers by removing them prior to flooding.

A helicopter survey was done in fall 2017 to document the number of active beaver lodges within the future reservoir area. During this survey, four active lodges were found on the north side of the river, and five on the south side. The second year of beaver trapping within this area took place from January to March 2018. Trapping was carried out by the Registered Trapline (RTL) 15 holder and two helpers. This year, traps were set at the nine active lodges, and a total of 18 beaver and one muskrat were trapped out. Trapping efforts will continue each winter until reservoir impoundment.



Checking beaver traps within the future reservoir area

Caribou

Three migratory caribou herds (two coastal caribou herds and occasionally a barren ground herd) can be found in the Keeyask region in winter. A small group of caribou stays near Keeyask in the summer to calve (referred to as summer resident caribou). Two separate monitoring studies took place for caribou in 2017, both focused on the summer resident caribou.

Summer Resident Caribou Sensory Disturbance

Sensory disturbance studies took place in 2017 to see if the noise and light from Project construction are affecting caribou use of summer calving habitats (islands in lakes and mainland habitat).

Study methods in 2017 included the use of trail cameras and ground tracking on islands in lakes (118 cameras; 125 transects), on mainland habitat (34 cameras; 188 transects), and along the access roads (18 transects) to document the presence of caribou and other large mammals. Ground tracking occurred in April, July, and September, and the trail cameras were in place from April through September.

Adult caribou occupied almost 70 per cent of the islands in the lakes surveyed in 2017, showing an increase in use over the pre-construction period (2010 to 2014) and 2015. Caribou and calves were also detected together on a greater percentage of islands in 2017 than in 2015. As predicted in the EIS, some islands within four kilometres of construction were not used by caribou in 2017. However, the percentage of these islands on which caribou were detected more than doubled from 2015 to 2017 (from 28 in 2015 to 65



Summer resident caribou on an island in Stephens Lake in June 2017

in 2017). These results show that the range of sensory disturbance may be less than originally predicted for caribou (it was predicted to be four kilometres).

Caribou occupied 75 per cent of all surveyed mainland habitat areas, 19 per cent of which were also occupied by calves. While adult caribou activity was detected in most mainland areas within four kilometres of construction, the presence of caribou calves was detected in only one. This suggests limited caribou calving in mainland habitat areas near active construction.

Monitoring along the north and south access roads showed a greater density of both caribou and calf signs within two kilometres of the access roads than beyond it. This indicates that construction traffic along the access roads does not appear to be limiting use of calving habitat near the roads.

Caribou Winter Range

To learn more about the winter range (the area where an animal can be found) of the summer resident caribou, an aerial survey took place in early December 2017, before the migratory caribou would typically enter into the Keeyask region. The survey was conducted within the Keeyask region, between Split Lake and Gillam.

Although no caribou or their signs were found in the defined survey area, eight caribou were observed outside of the survey area, approximately 60 km southeast of the Project site. These caribou were likely from the Southern Hudson Bay subpopulation (formerly known as the Pen Islands herd), and were likely just migrating into the Keeyask region. A bull and cow, a cow and calf, and a bull and three cows were observed. Tracks were also found at one location. The 2017 observations were southeast of the summer resident caribou’s known summer calving range, and further east than the caribou observed under the same study in late November 2015 and December 2016.

Thousands of caribou from the Southern Hudson Bay subpopulation were observed moving through the Split Lake area in late December 2017 and January 2018. Several of the surrounding communities participated in a successful caribou harvest in early January.

Keeyask Caribou Coordination Committee

The Keeyask Caribou Coordination Committee (KCCC) includes members from TCN, WLFN, YFFN, FLCN, and Manitoba Hydro and is a sub-committee of the Monitoring Advisory Committee. In 2017–18, the KCCC met in July and October 2017,

and January 2018, to share information on caribou in the Keeyask region and discuss the caribou monitoring being done for the Project.

A KCCC two day caribou workshop was also held in May 2017 in Thompson. The workshop was well attended, with over 30 people from the partner First Nations, Manitoba Hydro, and Manitoba Sustainable Development. Presentations were shared on the partner First Nations’ ATK monitoring for caribou, as well as the technical science caribou monitoring for the Keeyask GS and Bipole III projects. Manitoba Sustainable Development presented on their coastal

caribou collaring program, which has some spatial overlap with the Keeyask region. There was also group discussion on how to bring ATK and technical science monitoring results together.



Caribou observed in the Keeyask region in January 2018

Moose

Moose are widely distributed and common in the Keeyask region. During the Project’s environmental assessment, the partner First Nations expressed concerns about Project effects on moose habitat and populations. In 2010, the number of moose in the Split Lake Resource Management Area was counted and the population was estimated. In order to measure the current status of the moose population with Project construction underway, the number of bulls, cows and calves was estimated in 2015 and again in 2018 and the results were compared with those from previous surveys.

In January 2018, aerial surveys were conducted in the Keeyask region. The moose population was estimated at 1,040 individuals and was unevenly distributed. This number was slightly lower (10 per cent decrease) than the estimate from the 2015 survey. There was also a lower ratio of bulls to cows and calves to cows.

The current moose population appears to be stable in the Keeyask region. As of January 2018, no direct adverse effects from Project construction were identified on moose numbers, where they were found, or their population structure. Fewer bulls for each cow in 2018 compared to 2015 and 2010 suggests that bulls are being selectively harvested, as recommended by the Cree Nation Partners (TCN and WLFN) in their 2013 Moose Harvest Sustainability Plan.

The moose aerial survey will be repeated in 2021 for continued evaluation of Project effects on the patterns and trends in moose numbers and where they are found in the Keeyask region.



Moose observed during the 2018 aerial surveys



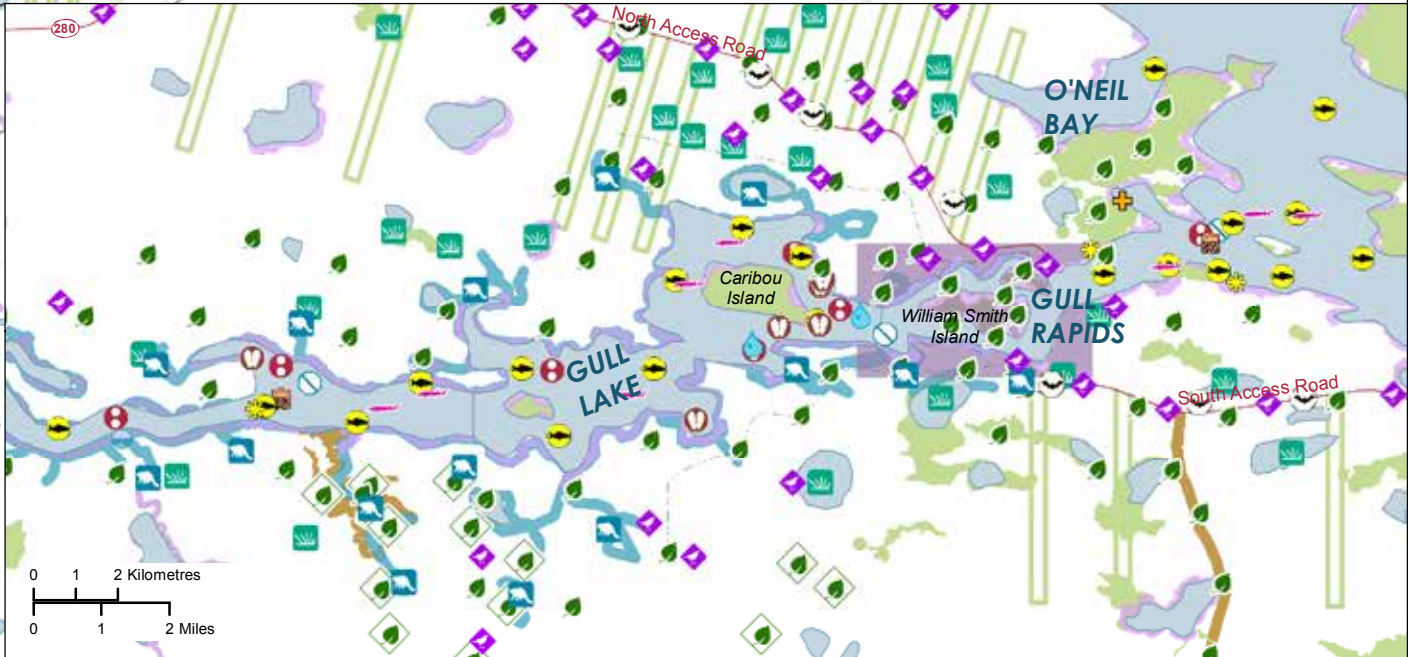
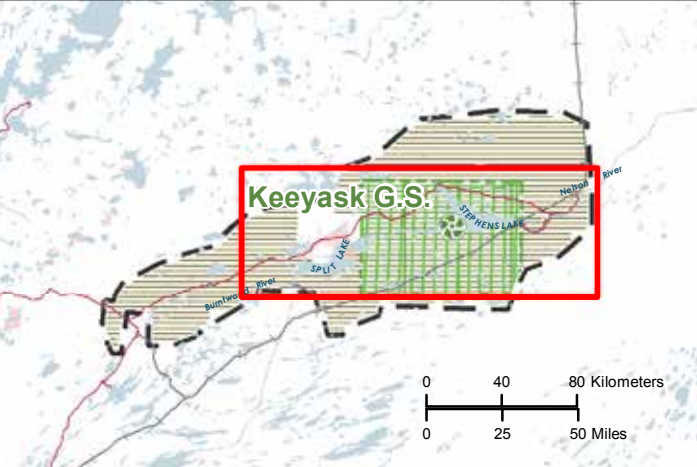
A moose feeding along the North Access Road

Sample / Survey Type

- | | | | | |
|------------------------|------------------------|----------------------|--------------------|-----------------------|
| Sediment Deposition | Fish Movement | Bird Species at Risk | Bat | Wildlife Den (Ground) |
| Total Suspended Solids | Lake Sturgeon Stocking | Bird (Shoreline) | Beaver Lodge | Keeyask Region |
| Turbidity | Adult Sturgeon | Bird (UAV) | Beaver (Shoreline) | Highway / Access Road |
| Water Quality | Juvenile Sturgeon | Plant | Moose (Aerial) | Rail |
| Water Level | Zebra Mussel | Plant Mercury | Caribou (Ground) | First Nation Reserve |
| Benthic Invertebrate | Amphibian | Wetland | Caribou (Aerial) | |

Environmental Monitoring
Locations

April 1, 2017 - March 31, 2018



Community Engagement

Both the AGE and the MAC hold sessions in the partner First Nation communities to provide information and generate interest about the Project. The AGE has Community Engagement Sessions with the intent of attracting potential employees. Information is provided to community members regarding Project camp life, employment and on-the-job training opportunities. The events include participation by the contractors, who share company and job information, representatives from the JRS, Workplace Education Manitoba, and Apprenticeship Manitoba. These sessions were held throughout 2017-18 in the partner First Nation communities, as well as in Thompson and Winnipeg. Job seekers were able to learn about employment and training opportunities at Keeyask, register with the JRS, participate in career planning, sign-up for essential skills upgrading, speak with various contractor representatives, and learn about what it means to be in the apprenticeship program.

Annually, the MAC has open houses in the partner First Nation communities to share and discuss the environmental mitigation measures that are being undertaken and results of the monitoring activities.

Students from the local schools often participate and there are a variety of activities geared to teach the next generation about the environmental initiatives at Keeyask. Three open houses were held early in 2018.



YFFN AGE Community Engagement Session



TCN AGE Community Engagement Session



Clara McLeod and Madisson Beardy (FLCN) trying out the engineering activities at the FLCN open house



Discussing environmental information with Elders at YFFN open house



Students counting the caribou on a poster at FLCN open house



Viewing posters at the MAC open house

Partnership Assets, Liabilities and Equity (as at March 31)

(in millions of dollars)	2018	2017
Assets		
Construction in progress	4,292	3,126
Current Assets	8	89
Intangible Asset	109	76
	4,409	3,291
Liabilities and Equity		
Long-term Debt	3,080	2,301
Current Liabilities	235	152
Long-term Liabilities	103	97
Partners' Capital	991	741
	4,409	3,291

Financing and Investing Activities (for the year ended March 31)

(in millions of dollars)	2018	2017
Financing Activities		
Proceeds from Partners' contributions	250	237
Net proceeds from long-term debt	780	755
	1,030	992
Investing Activities		
Generating station	(997)	(948)
Transmission line	(33)	(44)
	(1,030)	(992)

Partners' Capital (for the year ended March 31)

	Class	Units	Capital 2017	Contributions	Capital 2018
(in millions of dollars)					
Manitoba Hydro	M	7,499	611	206	817
General Partner (5900345 Manitoba Ltd.)	M	1	-	-	-
Cree Nation Partners Limited Partnership	K	1,050	78	26	104
	E	450	-	-	-
Fox Lake Cree Nation Keeyask Investments Inc.	K	350	26	9	35
	E	150	-	-	-
York Factory First Nation Limited Partnership	K	350	26	9	35
	E	150	-	-	-
		10,000	741	250	991