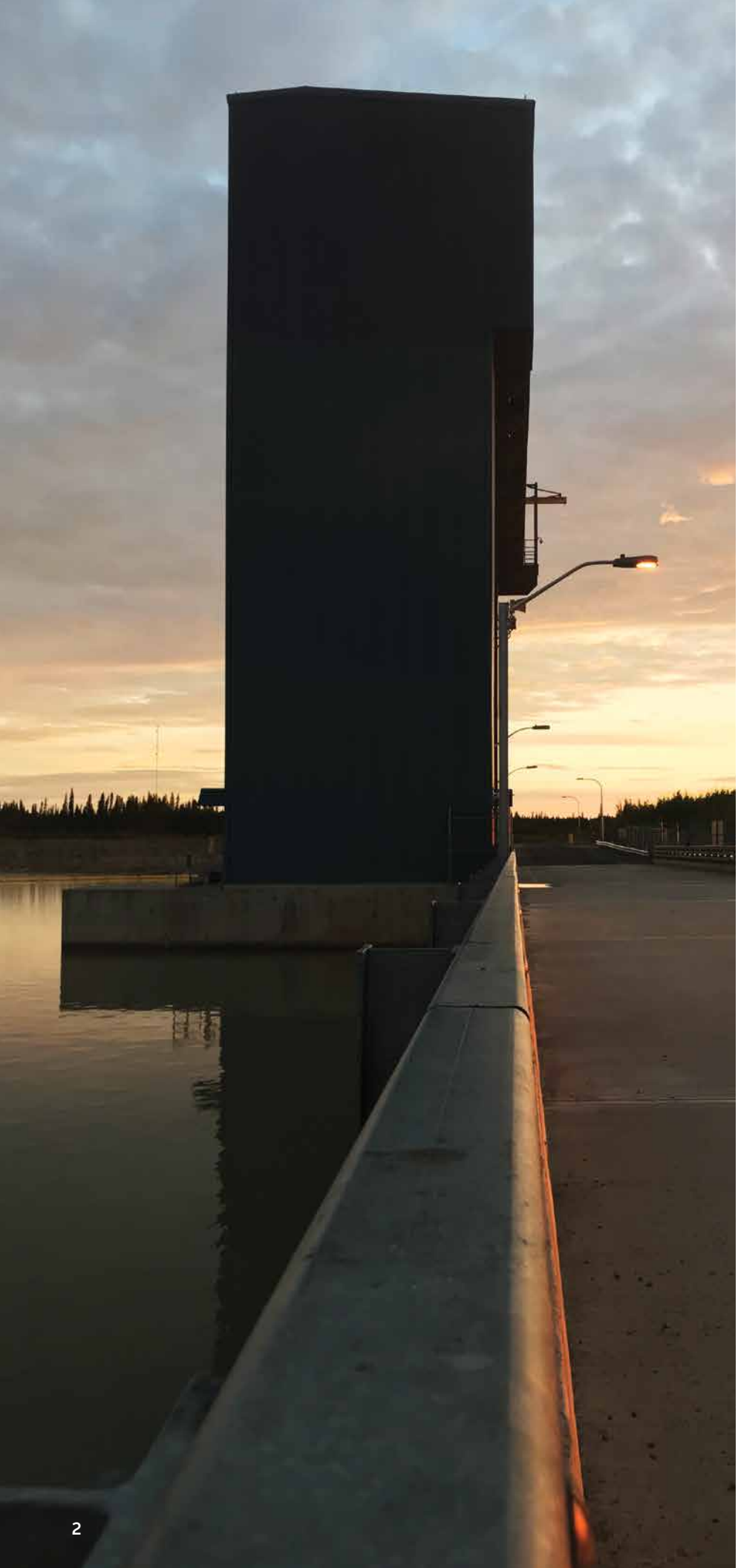
YEAR IN REVIEW

For the year ending March 31, 2020

WUSKWATIM

Power Limited Partnership



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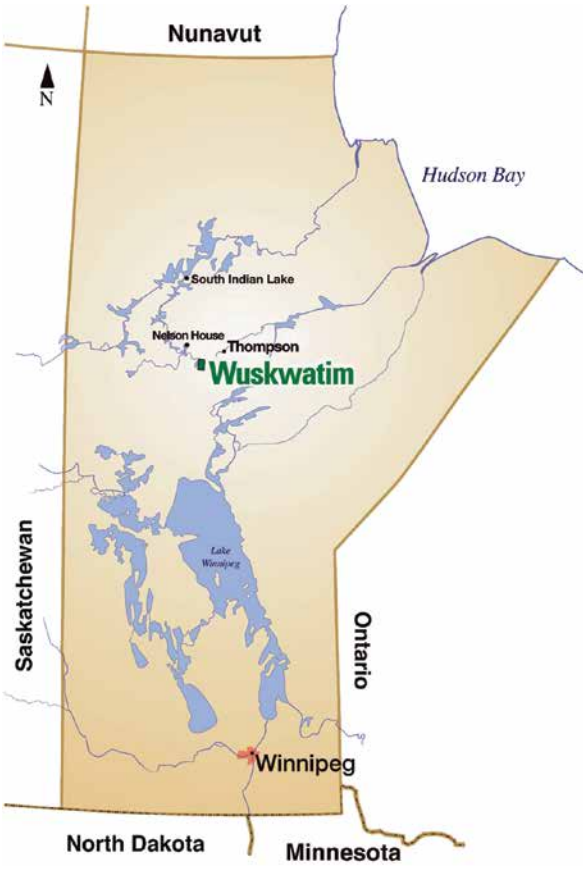
Directors of the General Partner of WPLP

Left to right (seated): Marcel Moody (Nisichawayasihk Cree Nation), Jimmy Hunter-Spence (Nisichawayasihk Cree Nation)
Left to right (standing): Brenda Froese (Manitoba Hydro), Lorne Midford, Chair (Manitoba Hydro), Nancy Willms (Manitoba Hydro), Wesley Penner (Manitoba Hydro)

WUSKWATIM
Power Limited Partnership

Wuskwatim Power Limited Partnership (WPLP), a legal entity involving Manitoba Hydro and Nisichawayasihk Cree Nation through its wholly owned Taskinigahp Power Corporation (TPC), has developed the Wuskwatim Generating Station on the Burntwood River in northern Manitoba. It marked the first time in Manitoba and Canada that a First Nation and an electric utility have entered into a formal equity partnership to develop and operate a hydroelectric project. Manitoba Hydro provides management and operational services to WPLP in accordance with the Project Development Agreement (PDA).



INTRODUCTION AND BACKGROUND

Nisichawayasihk Cree Nation and Manitoba Hydro spent nearly a decade discussing, planning and undertaking the environmental studies and regulatory processes for the 200-megawatt Wuskwatim Generation Project operating in Nisichawayasihk Cree Nation's traditional territory on the Burntwood River downstream of Wuskwatim Lake at Taskinigup Falls.

In 2006, the Wuskwatim Project Development Agreement (PDA) that governs all aspects of the Project was approved by Nisichawayasihk Cree Nation Citizens and signed by senior Manitoba Hydro officials and Nisichawayasihk Cree Nation Chief and Council. Construction started in August that year.

The agreement provided the option for Nisichawayasihk Cree Nation to own up to one-third of the Wuskwatim Generating Station through its wholly owned Taskinigahp Power Corporation. Nisichawayasihk Cree Nation has confirmed its intent to maintain its 33 per cent ownership position in the Wuskwatim Project.

The Wuskwatim Power Limited Partnership (WPLP) is governed by the Board of Directors of its General Partner (5022649 Manitoba Ltd., a wholly owned Manitoba Hydro subsidiary). The Board consists of two Nisichawayasihk Cree Nation and four Manitoba Hydro representatives. Pursuant to the PDA, WPLP contracted Manitoba Hydro to construct, manage, operate and maintain the Wuskwatim Generating Station.

Manitoba has a large self-renewing supply of waterpower with many hydroelectric generating stations developed to provide electrical energy for its citizens. Wuskwatim became fully operational in October 2012 and produces clean, renewable hydroelectric power. It adds to Manitoba's generation assets, helps to meet the province's domestic needs and provides energy to export customers.

MESSAGE FROM THE CHAIR

Lorne Midford
Chair, Wuskwatim Power Limited Partnership

I am pleased to introduce the 2019–20 Year in Review which highlights the activities of the Wuskwatim Power Limited Partnership (WPLP) over the past year. I am proud of the fact that, since coming into service in 2012, the Wuskwatim Generating Station has consistently surpassed industry performance standards in areas such as unit availability and forced outage rate.

The Partnership provides important business and employment opportunities to Nisichawayasihk Cree Nation. A good example of this is the service agreement with Nisichawayasihk Construction Limited Partners (NCLP) for the provision of equipment rentals and contract labour for work on the Wuskwatim roads. This year two members were hired by Manitoba Hydro's Waterways Management Program during the open water season to patrol Wuskwatim Lake to remove debris and gather data on debris type and quantity. Three NCN members are directly employed at the GS and over 2,500 hours of employment was generated throughout the year on activities such as terrestrial and aquatic environmental monitoring.

The environmental monitoring of this project is fundamental to both Partners and is the subject of detailed reporting which you will read in the following pages. A rigorous and comprehensive environmental monitoring program has been in place since the outset to track any long-term impacts on the physical environment, resource use, aquatic, terrestrial and socio-economic environments to ensure that we fully understand the impacts of our operations.

These efforts are complemented by the important work of *Ethinesewin* monitoring which relies on traditional knowledge to observe any environmental change. These activities are an integral part of our monitoring program. The annual Elders Monitoring Tour continues to be an important part of this work. The insights and recommendations made by the Elders are key to ensuring the environmental health of our operations. This year, an important recommendation was to re-establish youth participation to ensure that ecological knowledge as well as language and cultural teachings are passed on.

Financials

In 2019/2020, the WPLP reported revenues consistent with expenses, resulting in a break even year. This compares favourably to the net losses in previous years of $9 million in 2018–19 and $25 million in 2017–18 and is consistent with the losses experienced by hydroelectric generating stations in the early years of operations due to high up-front carrying costs associated with significant initial capital investment.

On a personal note, I would like to express my appreciation to all my Board colleagues for their contributions, their keen sense of collaboration and the leadership they have demonstrated over the past number of years. I have very much enjoyed working with them and I am confident that the example they have set has put the Partnership on solid footing for years to come.

Tansi

Lorne Midford

Chair of the General Partner of
Wuskwatim Power Limited Partnership
(5022649 Manitoba Ltd.)

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OPERATIONS

STATION PERFORMANCE

Manitoba Hydro uses three main criteria to measure generating station performance: net generation output, unit availability and unit forced outage rate.

Net Generation Output

Wuskwatim Generating Station produced 1.65 million megawatt hours of electricity this year. Output at the generating station was as forecast and reflects normal flows. Monthly production averaged 137,616 megawatt hours, with peak production of 146,800 megawatt hours in July and a low of 124,685 megawatt hours in May. These production numbers are a result of the near-normal water supply available in the Burntwood and Churchill River watersheds.

Unit Availability Factor

The generating station had an average monthly unit availability factor of 97.9 per cent, a measure of when the station is available to run when required. This is above average for a hydraulic generating station of this kind.

Unit Forced Outage Rate

The generating station had a forced outage rate of 0.7 per cent, a measure of the frequency of electrical or mechanical problems that remove a unit from service. The total of 170 hours of unit forced outage time is 0.7 per cent which is lower than the 1 per cent target.

MAINTENANCE AND REPAIRS

In May 2019 the six-year maintenance was done on unit 2.

In August 2019, south transition leakage repairs were done on unit 3.

In March 2020, governor pressure system repairs were done on unit 1.

DIRECT CONTRACT OPPORTUNITIES

A service agreement is in place with Nisichawayasihk Construction Limited Partners (NCLP) for the provision of equipment rentals and contract labour for work on the Wuskwatim roads. The contract is in effect until July 31, 2021.

SAFETY

Safety incident and activity reports are prepared monthly. During the past year, quarterly Workplace Safety and Health Committee meetings were held.

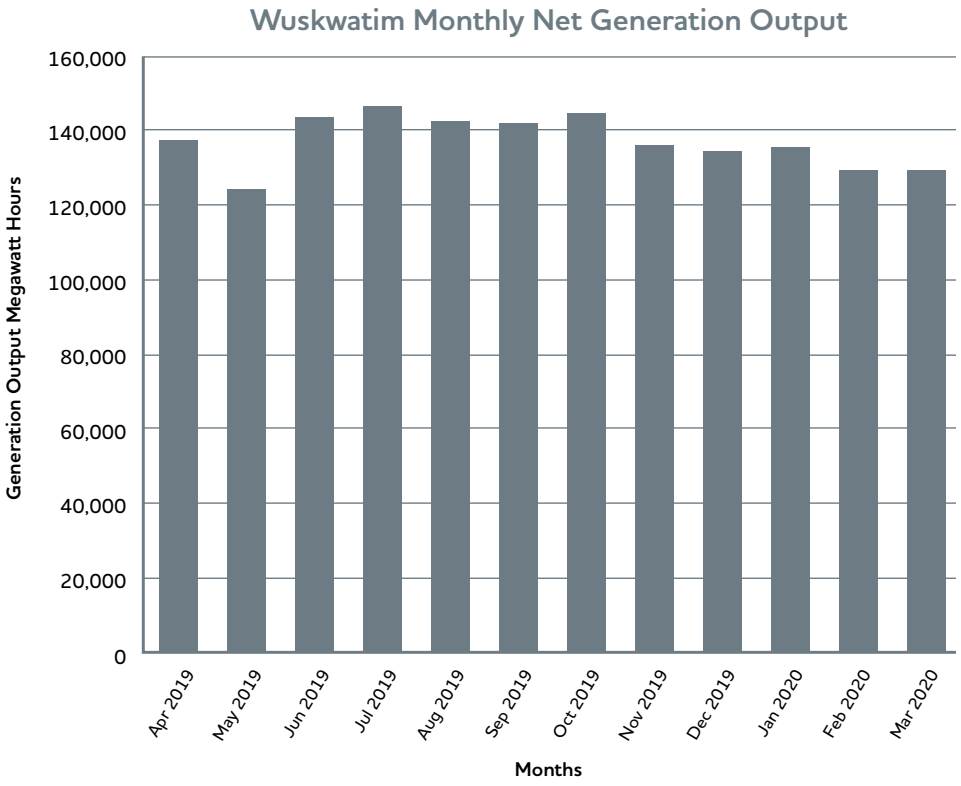
One lost-time incident occurred during this fiscal year.

NAVIGATION SAFETY

During the 2019 open water season, two Nisichawayasihk Cree Nation members were hired through Manitoba Hydro's Waterways Management Program to patrol Wuskwatim Lake and gather data on debris type and quantity. The crew patrolled 4,348 kilometres of shoreline and removed an estimated 233 pieces of debris. This work will continue during the 2020 open water season.

PLANT TOURS

In June 2019, attendees of the Midwestern Legislative Conference Energy Subcommittee were given a tour of Wuskwatim.



ENVIRONMENTAL MONITORING

ETHINESEWIN MONITORING

Ethinesewin is the traditional knowledge and collective wisdom of Nisichawayasi Nehethowuk (the people from where the three rivers meet and who speak the language of the four winds) that has been communicated orally for generations.

Like the traditional knowledge systems of other Indigenous peoples, *Ethinesewin* includes observation, classification, description and recording observations and results. The central focus of *Ethinesewin* is on relationships with and between the land, nature and people.

Nisichawayasi Nehethowuk, and in particular the NCN Elders, have been creating an understanding through *Ethinesewin* with Manitoba Hydro and Aski 'Otutoskeo Ltd (AOL) as an integral part of the environmental monitoring activities conducted during station construction and operations phases.

The communicating of *Ethinesewin* is vital to ensuring the Project achieves Kistethichikewin, meaning the conduct of a person must adhere to the sacred responsibility to treat all things with respect and honour, according to Kihche'othasowewin (the Great Law of the Creator).

In 2019, one *Ethinesewin* summer tour took place and it was a great success due to the coordination and participation of AOL and NCN members. There was great interaction amongst the Elders; six men and five women were invited to participate. Among the Elders were three traditional spiritual helpers from NCN that helped with the ceremonies and daily prayers.

A five-man field crew assisted with preparation for the *Ethinesewin* tour. Yearly underbrush clearing of the repatriation site and maintenance of the Wuskwatim Village also took place. This year the crew also did the shoreline clearing around the Wuskwatim Village camp site. Every morning, part of the crew went out on the boat to monitor water levels, fallen trees and floating debris. They also monitored fish and mammal activities.

The Elders and *Ethinesewin* crew re-visited the repatriation site of 2017, known as "Cow Grazing Bay" (*mostos sipiy*) and visited Early Morning Rapids for prayers and offerings of food and tobacco. As requested by a leading Elder, a sweat lodge was prepared and used for medicinal and healing purposes.

The *Ethinesewin* crew and Elders set fish nets, gathered and harvested medicine and

set beaver traps. There was not a lot of fish caught by net, mostly red suckers, whitefish, mariah and pickerel. The fish that were kept were smoked. There was one beaver caught, cleaned and prepared, during the Elder's tour. Daily medicine was harvested and prepared for use by the participants. A new garden for vegetables and herbs was planted and harvested in late September.

Everyone shared what they learned during the daily sharing sessions. These were very informative as the Elders brought forward recommendations for future tours. Recommendations included re-establishing youth participation, so future generations could witness the impacts of the Wuskwatim adverse effects for many years to come. The Elders felt it is imperative for the youth to learn and pass on ecological knowledge and all aspects of language and cultural teachings.

Another recommendation was to purchase a teepee; for gatherings, sharing, ceremonies and healing.

The Elders also recommended the construction of at least two more cabins at the village; one for storing medicines and the other for accommodations.

Individuals who participated in the 2019 *Ethinesewin* tour included:

Fred Hart
Sam Dysart
Lena Dysart
Flora Hart
Joyce Wood
Alma Wood
Lydia Linklater
Mathew Wood
Arthur Wood
John Peter Spence
Abraham Lobster
Clifford Spence
Morris Hart
Everette Linklater
John R. Spence
Pat Linklater
John Linklater

AQUATIC EFFECTS MONITORING

As part of the Wuskwatim EIS, an Aquatic Effects Monitoring Plan (AEMP) was developed. The AEMP provides for comprehensive monitoring of the aquatic environment during the second (2014), fourth (2016) and sixth (2018) years of operation. The intent of these studies is to compare current conditions to those prior to construction of the GS and to predictions in the Wuskwatim EIS.

Water Quality

The EIS predicted that operations could result in changes to water quality both upstream and downstream of the GS.

Upstream it was predicted there would be an increase in total suspended solids, metals, nutrients and dissolved oxygen fluctuations due to increased erosion, flooding and conversion of intermittently wetted habitat to permanently wetted habitat. Downstream it was predicted there would be a small increase in total suspended solids due to upstream erosion and localized increases in nutrients and dissolved oxygen fluctuations along the north shore of Opegano Lake and backwater inlets due to water level fluctuations and breakdown of peat.

2018 marked year six of operational monitoring and key observations included; increased total suspended solids near the northwest shore of Wuskwatim Lake and lower dissolved oxygen along the north shore of Opegano Lake. Although there were changes in these two parameters the levels observed were consistently within the Protection of Aquatic Life objectives meaning the Project has not resulted in ecologically significant effects on these metrics.

After six years of operational monitoring, water quality results indicate that the Project may have caused or contributed to changes in some water quality conditions in the study area but overall the Project does not appear to have affected the suitability of surface waters to support aquatic life.

Fish Community

The EIS predicted that operations would cause a small (i.e., not detectable) increase in the abundance of fish upstream of the GS due to greater access to spawning and feeding habitat, increased availability of food and unrestricted movements between the Wuskwatim forebay and Wuskwatim Lake. Downstream of the GS it was predicted that operations would cause a decrease in fish abundance due to the increased frequency of water level changes and a potential reduction in the number of fish moving downstream from Wuskwatim Lake. It was also predicted that erosion and sedimentation on Wuskwatim Lake might reduce the quality of Lake Whitefish and Cisco spawning habitat during the first five years after impoundment, while downstream the increased frequency of water level changes could result in a small reduction in Lake Whitefish and Cisco spawning habitat.

The fish community program targeted species that were identified as being of particular concern during the environmental assessment including Cisco, Lake Whitefish, Northern Pike and Walleye (collectively referred to as Valued Ecosystem Component (VEC) fish species). Parameters measured during the monitoring represent overall species composition and abundance, as well as those related to the growth, condition, and health of the fish species.

Results from 2018 indicate there has been no increase in fish abundance within Wuskwatim Lake or Wuskwatim forebay and no adverse effects to fish populations downstream of the station in the Burntwood River or Opegano Lake.

The largest changes to fish abundance have been observed in the immediate forebay where the average catch and overall number of species captured dropped during operation studies. The lower than predicted current fish species catches likely reflect changes in connectivity from the forebay to Wuskwatim Lake and the increased size of the forebay compared to baseline conditions.

ENVIRONMENTAL MONITORING

Lake Whitefish and Cisco Larval Studies

To assess potential effects on Lake Whitefish and Cisco spawning habitat, larval fish were collected along with shorelines both upstream and downstream of the GS. Upstream results from 2018 found that catches of larval Lake Whitefish and Cisco in Wuskwatim Lake and the Cranberry Lakes were slightly lower than catches from 2014 and 2016, although the distribution of larval Lake Whitefish and Cisco continues to be widespread along shorelines. The distribution of larval Lake Whitefish and Cisco in the most recent survey is similar to those of pre-Project surveys conducted in 2004 and 2007. Some of the highest catches on Wuskwatim Lake were collected off eroding shorelines, suggesting that Lake Whitefish and Cisco continue to spawn successfully in these areas. Erosion monitoring results show that the operation of the GS has not resulted in an increase in the mean annual rate of erosion of spawning habitat in Wuskwatim Lake to date (2011–2018).

In the Wuskwatim forebay, larval Lake Whitefish and Cisco were captured in 2014 and 2016 but none were captured in 2018.

Downstream surveys indicate that Lake Whitefish and Cisco continue to spawn in the Burntwood River and Opegano Lake. Larval Lake Whitefish and Cisco were

captured at more locations at Opegano Lake in 2018 than in 2014 and 2016. This may be attributed to the difference in the timing of the programs. The 2018 surveys were conducted 12 days after ice-off compared to two to six days during the 2014 and 2016 programs, respectively. While larval Lake Whitefish and Cisco were observed at 75% of the sites in the Burntwood River in 2014, they were not captured in 2016 and were only observed at one site in the 2018 surveys. In 2018, many of the larvae hatched at Burntwood River locations may have been swept downstream into Opegano Lake as the Burntwood River was ice-free for up to 15 days prior to being sampled.

Mercury in Fish

The EIS predicted increases in fish mercury as a result of flooding upstream of the Wuskwatim GS. Concentrations in Lake Whitefish, Northern Pike and Walleye in the forebay and Wuskwatim Lake were expected to increase reaching maximum levels of 0.14 ppm for Lake Whitefish, 0.39 ppm for Walleye and 0.56 ppm for pike. No measureable change in fish mercury levels were anticipated in Opegano Lake.

For Wuskwatim Lake in 2018, mercury levels ranged from 0.08 ppm for Lake Whitefish to 0.26 ppm in Walleye and 0.37 ppm in Northern Pike.

These concentrations were similar to pre-Project concentrations for 1998, 2002, 2005 and 2007 and were well below maximum post-Project levels. Mercury levels were also comparable to those recorded in 2014 and 2016, the first two years of post-Project monitoring. Similarly, mercury levels in Lake Whitefish, Northern Pike, and Walleye from Opegano Lake in 2018 were within the range of levels measured between 2000 and 2016. Based on these findings, no measurable effect of Project flooding and GS operation on fish mercury concentrations in Wuskwatim or Opegano lakes has been observed.

TERRESTRIAL EFFECTS MONITORING PLAN

As part of the Wuskwatim EIS, a Terrestrial Effects Monitoring Plan (TEMP) was developed. The TEMP provides for comprehensive monitoring of the terrestrial environment. The schedule for monitoring the various terrestrial components is included in the TEMP. The intent of these studies is to compare current conditions to those prior to construction of the GS and to predictions in the Wuskwatim EIS.

Woodland Caribou Aerial Survey

As part of the TEMP, woodland caribou, which are listed as threatened under the federal *Species at Risk Act* and *The Endangered Species and Ecosystems Act of Manitoba*, were monitored in the regional study area before, during, and after Project construction. The main objective of woodland caribou monitoring was to determine whether there were Project effects on caribou and/or caribou behaviour by studying their distribution, abundance, and movements in the regional study area.

An aerial survey focused on woodland caribou in the Harding and Wapisu-Wimapedi ranges was conducted from February 3 to 7, 2020 and the survey area was approximately 5,600 km^2.

One hundred and twenty-five caribou were observed during the 2020 aerial survey. These results were compared with those of previous years. The fewest caribou were observed in 2011 and 2012, during Project construction. Fewer caribou were observed in 2020 than during the first year of operation monitoring in 2015; however, a generally increasing trend has been observed in the population since 2001. Eighteen of the caribou observed during the 2020 aerial survey were identified as calves.

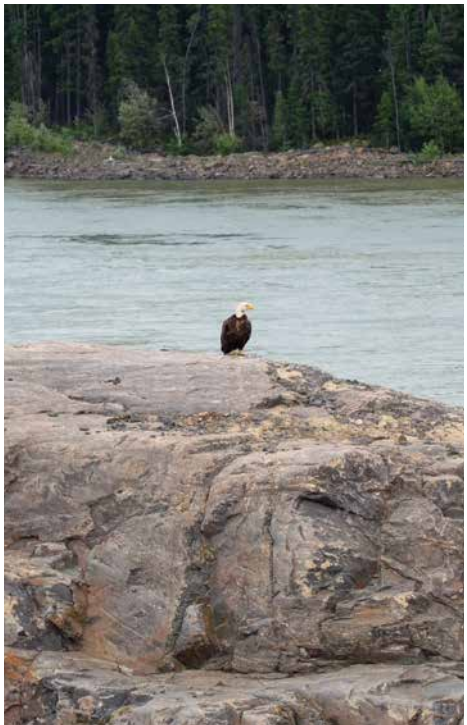
Despite the decline in the number of animals observed in the regional study area during construction in 2011 and 2012, there was an overall increasing trend in the caribou population from the pre-construction to operation period. Fewer caribou may have been observed in the region during construction due to sensory disturbances. The increase in the

number of caribou observed from the construction period to the first year of monitoring in 2015, was followed by a 37% decline in the number of animals observed during the second year of monitoring in 2020. There may be several reasons why fewer caribou were observed in 2020, including a true decline in the regional caribou population over five years however, it is more likely that a greater proportion of the regional population was observed in 2015 than in other years, and only a small portion of caribou in the Harding Lake area were detected in 2020 (14 caribou out of 125 total caribou).

Woodland caribou populations composed of 10 to 12 or fewer calves per 100 adults are typically in decline, as adult mortality is not balanced by new individuals recruited into the population. The ratio of 17 calves to 100 adults measured in 2020 suggests that the caribou population in the regional study area is stable.

In all, the regional caribou population may have been affected by the Project during construction, given that the fewest caribou were observed and that the calf:adult ratio was lowest in 2011 and 2012. However, the number of caribou observed in the regional study area during the two years of operation monitoring was within or exceeded the range observed during pre-construction surveys and calf:adult ratios during operation suggest a stable or possibly increasing population in the last 20 years that this population was monitored.

Other factors that could contribute to changes in caribou populations in the Wuskwatim survey area (i.e., observations of moose and gray wolves) were also recorded during the 2020 aerial survey. This is important as the survival of caribou populations is often inversely related to moose and wolf density. During the 2020 aerial survey, 36 moose and no wolves were observed. The moose and wolf populations appeared to remain depressed in the survey area, having declined substantially since 2001. The low moose and wolf numbers observed may be indicative of reduced population pressure faced by woodland caribou and may be a factor behind the growth of the woodland caribou population in the survey area since 2011.



ENVIRONMENTAL MONITORING

PHYSICAL ENVIRONMENT MONITORING

The Physical Environment Monitoring Program (PEMP) is an adaptive program designed to measure various physical environment components that may experience some change from Wuskwatim Generating Station operations. The components addressed in the PEMP include climate, water regime, erosion, sediment transport and woody debris. The geographic area subject to PEMP monitoring includes a section of the Burntwood River upstream of the Wuskwatim Generating Station to the foot of Early Morning Rapids, including Wuskwatim Lake, and downstream to Birch Tree Lake.

The initial PEMP, developed in 2007, identified that the program would be adaptive and modified based on results on an ongoing basis with a more fulsome review of the scope and temporal frequency of monitoring activities after 7 years of Wuskwatim operation. 2019–20 marked the eighth year of operations and the initiation of this program review. Shoreline erosion and sediment transport parameters were not monitored in 2019–20.

Climate

To characterize climatic conditions in the Wuskwatim monitoring area, weather data from the Environment and Climate Change Canada station at Thompson was analyzed. The 2019–20 annual average temperature recorded at Thompson was 0.1°C warmer than 1981 to 2010 normals and total annual precipitation was 5 mm below normal.

Water Regime

Flows at the Notigi Control Structure were near the operating maximum for much of the monitoring period. Flows were reduced slightly from mid-April to mid-May during the spring melt. Wuskwatim Lake operated within its licence limits of 233.75 to 234.0 metres.

Shoreline Erosion

While field surveys of bank recession were not conducted in 2019–20, airborne LiDAR and imagery collection was completed for Wuskwatim Lake and the Burntwood River downstream to Birch Tree Lake. This dataset will provide the starting point for comparing future LiDAR datasets in order to calculate annual average bank recession rates.

SOCIO-ECONOMIC MONITORING

Operational employment is being tracked through the life of the Project.

Direct Employment

At the end of March 2020, there were 14 full-time employees and four rotational trainees working at Wuskwatim. Six were Indigenous and three were NCN members.

Indirect Employment

Indirect employment throughout the 2019 field season included terrestrial and aquatic monitoring. Activities included; semi-aquatic fur bearer mercury sampling, spring larval fish sampling, waterfowl aerial surveys, commercial fishery monitoring, fish movement monitoring, beaver lodge and dam surveys, breeding bird surveys, acoustic monitoring, sediment trap and habitat truthing and monitoring of sensitive plants, benthic macroinvertebrates, water quality and fish community. Employment associated with these activities resulted in over 426 hours of work.

Since operations began in 2012, there have been almost 23,000 hours of indirect work, associated with environmental monitoring, or approximately 11.4 person-years of employment. A person-year of employment is defined as one full-time job for one year, which is typically about 2,000 hours of work.

PHASES OF OPERATIONAL MONITORING

Since the transition to operations, a 15 year, two-phase technical monitoring plan was developed. Phase 1 ended in 2019–20 and the findings will be analyzed over the next year. The phase 2 plan and schedule will be developed to cover the subsequent seven-year period ending in 2025–26.

Components	Year 7 2019/20
ETHINESEWIN MONITORING	
Traditional Knowledge Annual Tour	
BIOPHYSICAL MONITORING	
AQUATIC	
Water Quality	
Fish Community	
Invertebrates	
Fish Movements	
Bioengineering Sites	
Mercury in Fish	
No Net Loss Plan	
TERRESTRIAL	
Birds	
Plants	
Mammals	
RESOURCE USE	
Harvest Calendar Study	
PHYSICAL MONITORING	
Climate	
Water Regime	
Erosion	
Sediment Transport	
SOCIO-ECONOMIC MONITORING	
Operations Employment	

Evaluation and Adaptive Management

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2019–2020 FINANCIAL REPORT

Statement of Income (Loss)
(for the year ended March 31)

(in millions of dollars)	2020	2019
Revenue	114	108
Expenses		
Operating and administrative	9	10
Finance expense	76	77
Depreciation	18	19
Amortization	6	6
Water rentals	5	5
	114	117
Net income (loss)	–	(9)

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

(in millions of dollars)	2020	2019
Assets		
Property, plant and equipment	1,197	1,216
Intangible assets	258	264
Current assets	31	35
	1,486	1,515
Liabilities and Equity		
Current liabilities	23	24
Long-term debt	1,375	1,403
Partners' capital	88	88
	1,486	1,515

Partners' Capital
(as of March 31, 2020)

	Units	%	(net) Capital (in millions of dollars)
General Partner[1]	32.967	0.01	–
Manitoba Hydro	220,843.700	66.99	59
Taskinigahp Power Corporation	108,790.000	33.00	29
	329,666.667	100.00	88

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

(in millions of dollars)	2020	2019
Operating Activities		
Cash receipts from customers	112	111
Cash paid to suppliers	(14)	(14)
Interest paid	(76)	(77)
Cash provided by operating activities	22	20
Financing Activities		
(Repayment of) proceeds from long-term debt	(28)	(2)
Cash used for financing activities	(28)	(2)
Investing Activities		
Additions to property, plant and equipment	(1)	(1)
Other	7	(17)
Cash provided by (used for) investing activities	6	(18)

[1] The business affairs of WPLP are carried out by a general partner (GP), 5022649 Manitoba Ltd., a wholly owned Manitoba Hydro subsidiary.

WUSKWATIM
Power Limited Partnership

Wuskwatim Power Limited Partnership
14 - 360 Portage Avenue
Winnipeg, MB R3C 0G8
Telephone: 204-360-3860
Fax: 204-360-6128

www.wuskwatim.ca