

WUSKWATIM GENERATING STATION  
WUSKWATIM POWER LIMITED PARTNERSHIP



# YEAR IN REVIEW

For the year ending March 31, 2024



WUSKWATIM

Power Limited Partnership



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### Directors of the General Partner of WPLP

Marcel Moody (Nisichawayasihk Cree Nation), Jim Moore (Nisichawayasihk Cree Nation), Brenda Froese (Manitoba Hydro), Quinn Menec, Chair (Manitoba Hydro), Tara Carson (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



**Quinn Menec**

Chair of the General  
Partnership of the Wuskwatim  
Power Limited Partnership

I am pleased to present the 2023-24 Year in Review which highlights the activities of the Wuskwatim Power Limited Partnership (WPLP).

Over the past year we were saddened to learn of the passing of Jimmy Hunter-Spence on January 13, 2024 and we offer the Board's most sincere condolences to his spouse Sarah Spence and their families, close friends and all who had the pleasure to know him.

Jimmy had a remarkable career. He was a deeply religious person who was solidly grounded in the teachings of his culture. This informed his work with the WPLP. We would like to acknowledge the important contributions he made over the years to this Partnership. As an original member of the Board, he served with distinction from 2005 until April 2023. We greatly appreciate the wisdom which he brought to our decisions, his calm demeanour, and his unfailing advocacy for the interests of his community. He will be sorely missed, and we will attempt to honour his memory by continuing the work he was engaged in.

Jimmy will be replaced by Jim Moore, a former Chief, who we welcome as a new member of the Board. We look forward to working with Jim and benefit from the unique contributions he will undoubtedly make to our work.

I would like to thank all Board members and staff for their commitment and hard work in making this Partnership a success. I especially appreciate the collaborative spirit which exists and is largely responsible for the accomplishments of this Partnership.

Kinanâskomitin,

**Quinn Menec**

*Quinn Menec*

# 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 1.30 million megawatt hours of electricity this year. Output at the generating station was as forecasted and reflects normal flows. Monthly production averaged 108,751 megawatt hours, with peak production of 144,528 megawatt hours in July and a low of 78,347 megawatt hours in October.

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 98 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 0.6 per cent, a measure of the frequency of electrical or mechanical problems that remove a unit from service. The total of 112.4 hours of unit forced outage time is 0.6 per cent which is lower than the 1 per cent target.

## MAINTENANCE AND REPAIRS

In May 2023 the three-year maintenance was done on unit 3.

In November 2023, units 1 and 2 were taken out of service to test the unit fire deluge systems.

In early May 2023, all three units were taken out of service to make necessary modifications for Zebra Mussel Mitigation connections (preventative).

## 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, 2026.

## SAFETY

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



## NAVIGATION SAFETY

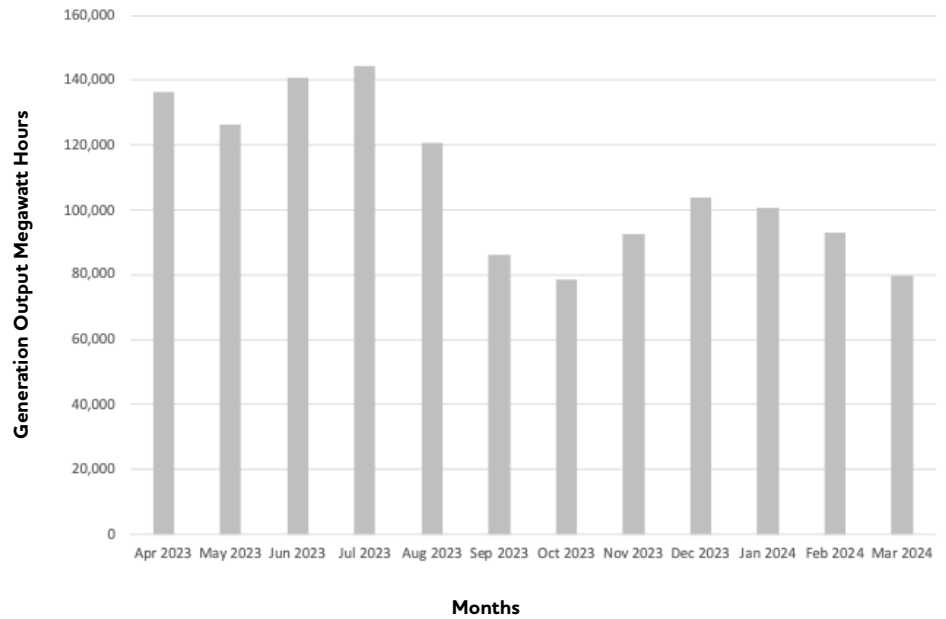
During the 2023 open water season, two Nisichawayasihk Cree Nation members were hired through Manitoba Hydro's Waterways Management Program to patrol Wuskwatim Lake and gather data, record safe travel routes and remove floating debris from the waterways.

The boat patrol ran for approximately 24 weeks, from May to October, resulting in 4,195 kilometres of shoreline patrolled. This work will continue during the 2024 open water season.

## PLANT TOURS

No tours were conducted during 2023-2024.

## Wuskwatim Monthly Gross Generation Output



# 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 of observations and results. The central focus of *Ethinesewin* is on relationships with and between the land, nature, and people. Nisichawayasi Nehethowuk and, 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

construction and the current operational phase. Communicating *Ethinesewin* is vital to ensure 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).

### Wuskwatim Village

The Wuskwatim *Ethinesewin* Monitoring crew started work at the Village on June 13, 2023 and assessed the area for damage from bears, wolverine & ground hogs as these animals have continued to damage the infrastructure over the winter months. The crew cleaned, disinfected, dusted, and repaired any damages. Yard maintenance took place and firewood was brought in for use in the cabins & kitchen. Staff felt

a fire guard was needed to protect to protect the Village from potential forest fires, so workers cleaned the brush and standing willows around the area. Construction took place on a new building that will be used for medicine harvesting.

### Wuskwatim Bed & Breakfast

Repairs took place at the Wuskwatim bed & breakfast building as there was still some damage from previous storms; fallen trees were cut to for NCN community use and the hydro mast was also repaired. A fire guard was also established to protect the building from potential forest fires. New showers were installed in the bed & breakfast and eliminates the need to transport workers and guests off site to use these facilities.







## Wuskwatim Village

### Southwind Service for Neurolinguistic Programming

To help staff heal from a tragic accident that took place on the waterways, NCN Chief & Council brought in a professional counsellor who specializes in neurolinguistics programming. Samantha Folster from Southwind Service lead a multi-day therapy session which was attended by staff from both the Debris Management and *Ethinesewin* Programs, along with several Elders, AOL managers and others who regularly worked on these programs.

Samantha is a Cree woman and former Councillor from Norway House Cree Nation.

The session took place from August 14 to 18, 2023 and was well received by all who attended.

Participating Elders this year included:

- Morris Hart
- Leroy Francois
- Leonard Spence
- Lydia Linklater
- John Peter Spence
- James Spence
- Mathew Wood
- George Wood
- Clifford Spence
- Clifford Hart
- Ella Hart

### Wuskwatim Stream Crossing

Water levels in the stream crossings were low due to beaver dams impacting the water from normal flow. Beaver activity is causing damage to the road with noticeable erosion and dips. The *Ethinesewin* monitoring crew broke apart

several dams however, by the next day the beavers had repaired them. Crews attempted to trap the beavers but were unsuccessful.

### Heritage

Heritage is important to NCN Elders, and they always expressed that repatriation and grave sites need to be cared for and maintained to ensure none of the graves are disturbed. Workers once again visited the Wuskwatim Lake Mistoos Sipi Repatriation Site and the Wuskwatim Lake South Island Grave site. The sites were cleaned, debris and fallen trees were removed, and prayers and tobacco were offered.



## AQUATIC AND TERRESTRIAL MONITORING

Phase II monitoring associated with operating the Wuskwatim Generating Station (GS) continued in 2023. Phase II picked up where Phase I left off, with a transition period in between to review the results from the first phase for the purpose of determining which studies were finished and which require more information before any conclusions can be made. Phase II aquatic and terrestrial monitoring have fewer studies and/or less frequent monitoring than those conducted in Phase I.

### Aquatic Monitoring

Aquatic monitoring undertaken in 2023 was limited to accessing the spillway channel on May 30 to determine if a fish rescue should take place after spill

cessation. The aquatic team fished four pools that were deep enough to contain fish after spilling. The aquatic biologist does not recommend future fish rescues in this location because the likelihood of fish using the channel during spillway operation is minimal given the high flows. Also, if fish were present, they could either survive because the pools are continually flushed with fresh, flowing water that comes from leakage through the spillway, or escape to the Burntwood River because of the interconnections between the pools and river. A small White Sucker was caught and released during the investigation.

### Terrestrial Monitoring

Terrestrial monitoring in 2023 included evaluating lake peatlands, lake shore zones, the presence and spread of invasive plants and mammal tracking (including woodland caribou).

### Lake Peatlands and Shore Zones

Lake peatlands and shore zones in the area are being monitored to confirm how much the water level changes associated with operating the generating station is impacting these key habitats. In the EIS, it was predicted the shore zone's soils and the vegetation it supports, as well as lake peatlands, could be affected as far as 50 metres inland because of erosion and peat disintegration associated with GS operation. Both aerial mapping and transect monitoring were undertaken within 100 metres of the shoreline in 2022 and 2023, and the data are being compared to those collected at the same locations prior to operating the GS to measure the actual change to these habitats. Monitoring is scheduled to take place again in 2029.



## Invasive Species

Ongoing monitoring was carried out in 2023 at a subset of areas that were disturbed to construct the GS to evaluate invasive vegetation. Disturbed areas are monitored on a rotating basis by the terrestrial biologists to document the type and spread of invasive plants and prioritize key areas where especially aggressive species should be pulled and carefully disposed. The EIS predicted that invasive species introduced during the project would not overtake natural vegetation in undisturbed areas or outcompete planted or naturally occurring native species in areas disturbed by the project. So far, manual removal to control aggressive invasives such as scentless chamomile, ox-eye daisy, common tansy, Canada thistle, common burdock, and tufted vetch, has been successful in preventing spread and/or eliminating these species from targeted areas. Monitoring will take place again in 2028.

## Mammals Tracking

In the EIS, long-term, negative Project effects on mammals were predicted because of habitat loss and avoidance of the area because of sensory disturbance from things like noise. These effects were observed during construction and persisted with respect to woodland caribou during Phase I operation. Mammals that are being monitored during Phase II include woodland caribou, moose, black bear and gray wolf. So far, woodland caribou and moose were still avoiding areas near the road, GS or both. It is possible moose and caribou are avoiding these areas in response to many black bears observed in these areas. Mammal tracking during Phase II is scheduled to take place until 2024.



## 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 and erosion. 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. Current monitoring is less intensive than it was during the first seven years of operation. Climate and water regime data continue to be collected on an ongoing basis. Shoreline erosion is being examined at five-year intervals.

### 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 2023-24 annual average temperature recorded at Thompson was 2.7°C warmer than 1991 to 2020 normals and total annual precipitation was 42 mm below normal.

### Water Regime

Flows at the Notigi Control Structure were reduced from maximum briefly in the spring due to lower electrical demand and then more drastically in late summer and fall as very low inflows to Southern Indian Lake were stored for use during the upcoming peak winter demand season. Winter flows were well below average and were reduced in February and March to maintain levels on Southern Indian Lake within licence limits. Wuskwatim Lake operated within its licence limits of 233.75 to 234.0 metres.







## **SOCIO-ECONOMIC MONITORING**

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

### **Direct Employment**

At the end of March 2024, there were 13 full-time staff and one new trainee working at Wuskwatim, of which four self-identified as NCN members.

### **Indirect Employment**

Indirect employment throughout the 2023 field season included investigating the tailrace for stranded fish after the

spillway was turned off, large mammal tracking (including woodland caribou), and shore/lake peatland plant surveys.

Employment associated with these activities resulted in 2,343 hours of work.

Since operations began in 2012, there have been approximately 26,850 hours of indirect work, associated with environmental monitoring, or approximately 13.43 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.





## PHASE 2 MONITORING

### ETHINESEWIN MONITORING

#### Traditional Knowledge Annual Tour

Monitoring: 2024–2032

### BIOPHYSICAL MONITORING – AQUATIC

#### Fish Community

Monitoring: 2025, 2028, 2031

Annual report: 2026, 2029

Summary report: 2032

#### No Net Loss Plan

Monitoring: 2025, 2028, 2031

Annual report: 2026, 2029

Summary report: 2032

### BIOPHYSICAL MONITORING – TERRESTRIAL

#### Habitat Regeneration

Monitoring: 2029

Summary report: 2030

#### Mammals

Monitoring: 2024

Annual report: 2024, 2025

#### Shore zone Habitat

Monitoring: 2030

Annual report: 2024

Summary report: 2031

#### Peatland Habitat

Monitoring: 2029

Annual report: 2024

Summary report: 2030

#### Invasive Plants

Monitoring: 2028

Annual report: 2024

Summary report: 2029

### PHYSICAL MONITORING

#### Climate

Monitoring: 2024–2032

#### Water Regime

Monitoring: 2024–2032

#### Erosion

Monitoring: 2025

#### Sediment Transport

Monitoring: 2025, 2030

### SOCIO-ECONOMIC MONITORING

#### Operational Employment

Monitoring: 2024–2032

# 2023-2024 FINANCIAL REPORT

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

(in millions of dollars)	2024	2023
<b>Revenue</b>	104	125
<b>Expenses</b>		
Operating and administrative	9	8
Finance expense	62	66
Depreciation	19	17
Amortization	3	3
Water rentals	2	3
	95	97
<b>Net Income</b>	<b>9</b>	<b>28</b>

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

(in millions of dollars)	2024	2023
<b>Assets</b>		
Property, plant and equipment	1,127	1,145
Intangible assets	243	246
Deposit for debt retirement	46	34
Current assets	113	98
	1,529	1,523
<b>Liabilities and Equity</b>		
Current liabilities	23	23
Long-term debt	1,366	1,369
Partners' capital	140	131
	1,529	1,523



## Partners' Capital (as at March 31, 2024)

	Units	%	(net) Capital (in millions of dollars)
General Partner <sup>1</sup>	32.967	0.01	–
Manitoba Hydro	220,843.700	66.99	94
Taskinigahp Power Corporation	108,790.000	33.00	46
	329,666.667	100.00	140

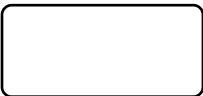
## Operating, Financing and Investing Activities (for the year ended March 31)

(in millions of dollars)	2024	2023
<b>Operating Activities</b>		
Cash receipts from customers	121	114
Cash paid to suppliers	(11)	(10)
Interest paid	(69)	(70)
Interest received	7	3
Cash provided by operating activities	48	37
<b>Financing Activities</b>		
Repayment of long-term debt	(2)	(2)
Cash used for financing activities	(2)	(2)
<b>Investing Activities</b>		
Additions to property, plant and equipment	(1)	-
Term investment	(33)	(23)
Deposit for debt retirement	(12)	(12)
Cash used for investing activities	(46)	(35)

<sup>1</sup> 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

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