Ministry of Natural Resources
Ontario
ONTARIO POWER GENERATION
Orillia Power
Bracebridge Generation
ALGONQUIN POWER

Muskoka River

Water Management Plan






Final Plan Report

January 2006
Amended February 2018
Amended December 2019
Amended December 2024

ACRES International

Muskoka River

Water Management Plan

Final Plan Report

January 2006
Amended February 2018
Amended December 2019
Amended December 2024

ACRES International

1 Plan Approval

APPROVAL STATEMENT
WATER MANAGEMENT PLAN FOR WATERPOWER
for the
Muskoka River System
District of Parry Sound, Southern Region
Ontario Power Generation Inc.
Orillia Power Generation Corporation
Algonquin Power Fund (Canada) Inc.
Bracebridge Generation Ltd.

In submitting this plan, we confirm that this water management plan for waterpower has been prepared in accordance with *Water Management Planning Guidelines for Waterpower*, as approved by the Minister of Natural Resources on May 14, 2002. The signing parties agree that this plan will supercede the operational plans and strategies for various Muskoka Lakes outlined in the Hackner-Holden Agreement of 1940 and the subsequent Addendum of 1969.

_____

Peter Murray, NEPG and Evergreen Energy, date
Ontario Power Generation Inc.
(Trethewey, Hanna Chute, South Falls, Ragged Rapids and Big Eddy waterpower facilities)

_____

John Mattinson, Orillia Power Generation Corporation date
(Matthias waterpower facility)

_____

David Kerr, Algonquin Power Fund (Canada) Inc. date
(Burgess waterpower facility)

_____

Chris Litschko, Bracebridge Generation Ltd. date
(High Falls, Wilson Falls and Bracebridge waterpower facilities)

I concur that this water management plan has been prepared in accordance with *Water Management Planning Guidelines for Waterpower*, as approved by the Minister of Natural Resources on May 14, 2002, and that direction from other sources, relevant policies and other obligations have been considered. I recommend this plan be approved for implementation.

_____

Andy Heerschap, A/District Manager date
Parry Sound District, MNR

Approved by: _____
Ray Bonenberg, A/Regional Director, Southern Region date
Ontario Ministry of Natural Resources

Disclaimer

This water management plan (WMP) sets out legally enforceable provisions for the management of flows and levels on this river within the values and conditions identified in the WMP.

In instances where, due to emergency energy shortages, the Independent Electricity System Operator (IESO) requests that owners of the waterpower facilities and associated water control structures seek relief from certain provisions of this WMP, the Ministry of Natural Resources (MNR) will consider those requests expeditiously and, after consultation with the IESO, may allow short-term relief from certain provisions.

The mandatory provisions of this WMP will be waived, as appropriate, when the dam owners (which may include other dam owners, such as MNR) are requested to do so by a police service or other emergency measures organization.

In instances of unscheduled facility imperatives (e.g. emergency maintenance etc), MNR will consider requests from the owner for temporary relief from the plan expeditiously with consideration to the relative priorities of both MNR and the owner

This plan does not authorize any other activity, work or undertaking in water or for the use of water, or imply that existing dams(s) meet with safe design, operation, maintenance, inspection, monitoring and emergency preparedness to provide for the protection of persons and property under the *Lakes and Rivers Improvement Act*. Approval of this WMP does not relieve the dam owners from their responsibility to comply with any other applicable legislation. For the purposes of this plan, an operational plan means a plan for the management of flows and levels.

Approval of this plan does not grant a dam owner the right to flood Crown land or the land of any other person without first obtaining the Crown's or that person's consent, nor does it authorize any infringement of the rights of the Crown or of any other person.

In 1994, MNR finalized its Statement of Environmental Values (SEV) under the Environmental Bill of Rights (EBR). The SEV is a document that describes how the purposes of the EBR are to be considered whenever decisions are made that might significantly affect the environment are made in the ministry. During the development of this water management plan, the ministry has considered its SEV.

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Ontario

February 22, 2016

Subject: Ministry of Natural Resources and Forestry Approval of Administrative Amendment to Extend the Term of the Muskoka River Water Management Plan

This letter is to advise that the Muskoka River Water Management Plan has been amended under Section 23.1(6) the *Lakes and Rivers Improvement Act.* An administrative amendment was undertaken and approved February 22, 2014. The amendment extended the term of the plan for an additional 5 years. This will ensure that the existing water management plan remains in effect while providing time for the results of the proposed changes to provincial requirements for the preparation, amendment and review of water management plans under the *Lakes and Rivers Improvement Act* to be known. The plan will now expire in March 31, 2021.

Changes as a result of this amendment are reflected in the updated (March 2016) version of the Muskoka River Water Management Plan.

Regards,

Jane Ireland
Region Director
Southern Region
Ministry of Natural Resources and Forestry

Ministry of Natural Resources and Forestry

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February 16, 2018

Subject: Ministry of Natural Resources and Forestry Approval of Administrative Amendment to Align the Muskoka River Water Management Plan with Current Provincial Policy

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This letter is to advise that the Muskoka River Water Management Plan has been amended under Section 23.1 (6) of the *Lakes and Rivers Improvement Act.* An administrative amendment was undertaken by the Ministry of Natural Resources and Forestry, and was approved on February 16, 2018. The amendment was undertaken to align the Muskoka River Water Management Plan with direction in the approved 2016 Maintaining Water Management Plans Technical Bulletin.

Changes as a result of this amendment are reflected in the updated (February 2018) version of the Muskoka River Water Management Plan. A summary of this amendment can be found in the History of Amendments on the following page and in more detail in Appendix H.

Regards,

Sharon Rew
Regional Director
Southern Region
Ministry of Natural Resources and Forestry

February 16, 2018 Amendment

On February 16th, 2018, the Ministry of Natural Resources and Forestry (MNRF) approved an amendment to the Muskoka River Water Management Plan to align the plan with the approved 2016 Maintaining Water Management Plans Technical Bulletin (refer to Appendix H for a complete summary of amendment text changes).

This administrative amendment resulted in changes to the following sections of the Plan:

Expiry Date	The expiry date has been **removed**.
Amendments	Section 17 has been **replaced.**
Standing Advisory Committee	Section 16.2 has been **revised.**
Compliance	Sections 13.4.1 and 13.4.2 have been **replaced**.
Effectiveness Monitoring	Section 14 has been **revised**.
Implementation Reporting	Section 16.3 has been **replaced** and Section 16.4 has been **removed**.

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December 12, 2019

Subject: **Ministry of Natural Resources and Forestry Approval of Minor Amendment to Incorporate the Bala North Generating Station and its Operator, Swift River Energy Limited, into the Muskoka River Water Management Plan**

This letter is to advise that the Muskoka River Water Management Plan has been amended under Section 23.1(6) the *Lakes and Rivers Improvement Act.* A minor amendment was approved December 12, 2019. The amendment was undertaken to incorporate the new waterpower facility, Bala North Generating Station, and its operator, Swift River Energy Limited (SREL), into the existing water management plan.

Changes as a result of this amendment are reflected in the updated (December 2019) version of the Muskoka River Water Management Plan. A summary of this amendment can be found in the Amendment Summary on the following page.

Regards,

Sharon Rew
Regional Director
Southern Region
Ministry of Natural Resources and Forestry

Ontario

December 12, 2019 Amendment Summary

On December 12, 2019, the Ministry of Natural Resources and Forestry (MNRF) approved an amendment to the Muskoka River Water Management Plan to incorporate the new waterpower facility, Bala North Generating Station, and its operator, Swift River Energy Limited (SREL), into the existing water management plan.

The amendment is categorized as a minor amendment, in accordance with the 2016 Maintaining Water Management Plans Technical Bulletin. The Environmental Assessment Act (EA Act) requirements for the new waterpower facility were met through a previous process and addressed social, economic and environmental interests, including coordination with other dam owners and alignment of the new facility with the existing water management plan. No changes to the Muskoka River Water Management Plan's existing approved water levels and flows are proposed with the amendment, and the amendment is in keeping with the objectives of the water management plan. The minor amendment is an administrative procedure to ensure that SREL is reflected as an operator under the plan, and that the commitments and conditions agreed to by SREL through the EA Act process that relate to dam operations and the management of water flows and levels are represented in the water management plan. SREL is required to operate in accordance with the Muskoka River Water Management Plan, including compliance monitoring and reporting requirements specified by the plan.

The minor amendment has resulted in changes to the following sections of the plan:

Plan Approval	**Section 1** has been **revised** by inserting this notice of amendment approval.
Water Control Structures and Water Power Facilities	**Section 5** has been **revised** to incorporate the new North Bala Generating Station into the description of the facilities.
Preferred Strategy and Comparison with Current Operation	**Section 11** has been **revised** to incorporate consistent wording from section 12.
Operating Plans	**Section 12** has been **revised** to incorporate Swift River Energy Ltd. and the Bala North Generating Station into the operating plan for Lake Muskoka. Also, to clarify operations of flows and levels.
Compliance Monitoring Program	**Section 13** has been **revised** to clarify compliance monitoring requirements.
Effectiveness Monitoring Program	**Section 14** has been **revised** to incorporate Swift River Energy Ltd. effectiveness monitoring commitments identified through the EA process.
Plan Implementation	**Section 16** has been **revised** to incorporate Swift River Energy Ltd as an operator responsible for WMP implementation.
Appendix I	**Appendix I** has been inserted to show the operating levels at the north and south bala dams and north bala generating station (Best Management Zone - BMZ)

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December 16, 2024

Subject: Ministry of Natural Resources Approval of Minor Amendment to Update Muskoka River Water Management Plan

This letter is to advise that the Muskoka River Water Management Plan (MRWMP) has been amended under Section 23.1(6) the *Lakes and Rivers Improvement Act.* A minor amendment was undertaken and approved December 16, 2024. The amendment consists of:

- updated sections of the MRWMP to account for the installation and use of two (2) new sluice-gates in the Bala North Dam in bays #3 and #4, and updated flow restoration times.

Changes as a result of this amendment are reflected in the updated (December 2024) version of the Muskoka River Water Management Plan.

Regards,

Trevor Griffin
Regional Director
Southern Region
Ministry of Natural Resources

December 16, 2024 Amendment

On December 16, 2024, the Ministry of Natural Resources (MNR) approved an amendment to the Muskoka River Water Management Plan to account for the installation of two (2) new sluice gates in the Bala North Dam in bays #3 and #4. These gates will replace the current stoplogs and monorail hoists and allow for improved flow restoration times. With the installation of the new gates, SRLP will also pass the uninterrupted flows during walleye and lake sturgeon egg incubation and spawning periods (April 15 – June 10) through the North Bala GS to help improve production. An amendment to update sections of the WMP was required in order to account for the installation and use of the sluice gates and new flow restoration times.

The amendment is categorized as a minor amendment, in accordance with the 2016 Maintaining Water Management Plans Technical Bulletin. No changes to the Muskoka River Water Management Plan's existing approved water levels and flows are proposed with the amendment and the amendment is keeping with the objectives of the water management plan. The minor amendment is a procedure to ensure that the conditions and commitments agreed to that relate to dam operations and the management of water flows and levels are represented in the water management plan.

The minor amendment has resulted in changes to the following sections of the plan:

Structural Characteristics	**Section 5.4** – Revised wording to account for sluice gates installation and changes in water discharge.
Bala North Flows	**Section 12.3.2** – Wording remains the same. Paragraph added describing uninterrupted flow to be passed through the Generating Station.
Summary of Existing Operating Plans for Water Power Facilities and Water Control Structures	**Appendix C** – Wording around sluice gates updated and water discharge description added.

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Glossary of Abbreviations

AP	Algonquin Power
ARSP	Acres Reservoir Simulation Program
ASI	Archaeological Services Inc.
BBG	Bracebridge Generation Ltd.
BMA	Bear Management Area
BMP	Best Management Practice
BSC	Bird Studies Canada
CSV	Comma Separated Variable
DOM	Dam Operations Manual
DMOM	District Municipality of Muskoka
EBR	Environmental Bill of Rights
FDZ	Flood Damage Zone
GSC	Geodetic Survey of Canada
GPS	Geographic Positioning System
GS	generating station
HFT	High Flow Trigger
HWZ	High Water Zone
IESO	Independent Electricity System Operator
LCD	Local Construction Datum
LFT	Low Flow Trigger
MOE	Ontario Ministry of the Environment

NOZ	Normal Operating Zone
ODPW	Ontario Department of Public Works
OFSC	Ontario Federation of Snowmobile Clubs
OLL	Ontario Living Legacy
OPG	Ontario Power Generation
OPGC	Orillia Power Generation Corporation
OSAP	Ontario Stream Assessment Protocol
PAC	Public Advisory Committee
RWL	Regulated Water Level
SAC	Steering Advisory Committee
SEV	Statement of Environmental Values
SLIN	Spring Littoral Index Netting
SPIN	Summer Profundal Index Netting
TOL	Target Operating Level
WMP	water management plan
WMU	Wildlife Management Units
WPCP	wastewater pollution control plant
WSC	Water Survey of Canada