



**North Bay-Mattawa Source Protection Authority
Members Meeting for April 8, 2026 at 4:00 pm
In person and via Zoom
NBMCA's Marc Charron Boardroom Office
15 Janey Avenue, North Bay**

AGENDA

Procedural Matters

1. Acknowledgement of Indigenous Traditional and Treaty Lands
2. Approval of the Agenda
3. Declaration of Pecuniary Interest
4. Adoption of Previous Minutes from October 8, 2025 – page 2 (Minutes from AGM on January 14, 2026 to be approved at next AGM in 2027)
5. Correspondence
6. Delegations

Business Reports

7. Program Update - verbal
8. SPC member appointment – 26-DWSP-02 – page 5
9. Callander IPZ-ICA monitoring – 26-DWSP-03 – page 7
10. Annual Progress Report – 26-DWSP-04 – page 11

Other Business

11. New Business
12. Adjournment

Zoom Link

<https://zoom.us/j/93718549815?pwd=fOv5MIAsrciIYPJbJLsDroKWQNS4aB.1>

Meeting ID: 937 1854 9815

Passcode: 635882



North Bay-Mattawa Source Protection Authority Meeting Minutes

Source Protection Authority Meeting No. SPA-25-04
October 8, 2025
15 Janey Avenue, North Bay Ontario and hybrid via zoom.

Member(s) Present:

Municipality

Callander, Municipality of
Chisholm, Township of
Calvin, Township of
East Ferris, Municipality of
Mattawa, Town of
Mattawan, Municipality of
Nipissing, Township of
North Bay, City of
North Bay, City of
North Bay, City of
Papineau Cameron, Township of
Powassan, Municipality of
South River, Town of
Strong, Township of

Representative

Grant McMartin
Nunzio Scarfone
Bill Moreton
Lauren Rooyakkers
Loren Mick
Michelle Lahaye
Steve Kirkey
Peter Chirico
Chris Mayne
Lana Mitchell
Shelley Belanger
Dave Britton
Terri Brandt
Jim Ronholm

Member(s) Absent:

Municipality

Bonfield, Township of

Representative

Steve Featherstone

Also Present:

Association

Manager, Finance
Engineering and Development Officer
HR Coordinator/Executive Assistant/Deputy CAO
Water Resources Specialist
CBO, Manager, OSS Program
Manager, Drinking Water Source Protection
Planning and Regulations Officer
Media
Public

Name

Aaron Lougheed
Githan Kattera
Rebecca Morrow
Angela Mills
Kris Rivard
Liza Vandermeer
Hannah Wolfram
Jeff Turl
Glen Langlois

1. Acknowledgement of Indigenous Traditional and Treaty Lands

The meeting was called to order at 4:05 pm, and afterwards Michelle Lahaye read a statement acknowledging Indigenous and Treaty Lands.

2. Approval of the Agenda

Resolution #SPA20-25

Moved by Shelley Belanger

Seconded by Jim Ronholm

THAT the agenda be approved as presented. **Carried.**

3. Declaration of Pecuniary Interest

None

4. Adoption of Previous Minutes of April 9, 2025

Resolution #SPA21-25

Moved by Dave Britton

Seconded by Steve Kirkey

THAT the Minutes from the June 11 2025, meeting be approved. **Carried.**

5. Correspondence

None

6. Delegations

None

7. Source Protection Committee Recruitment

Liza Vandermeer presented the Ontario Transfer Payment Agreement report.

Resolution #SPA22-25

Moved by Nunzio Scarfone

Seconded by Grant McMartin

THAT the Members receive the Report on Ontario Transfer Payment Agreement, DWSP 2024-2027, North Bay-Mattawa for information purposes only and append it to the minutes of this meeting. **Carried.**

8. New Business

None.

9. Adjournment

Resolution #SPA23-25

Moved by Chris Mayne

Seconded by Dave Britton

THAT the meeting is adjourned at 4:30pm, and the next meeting be held at the call of the Chair. **Carried.**

X

Lana Mitchell
Vice Chair



To: The Chairperson and Members of the Board of Directors, North Bay-Mattawa Source Protection Authority

Origin: Angela Mills, Water Resources Specialist

Date: March 27, 2026

Report: 26-DWSP-02

Subject: Source Protection Committee Member Appointment

Background:

The Source Protection Committee (SPC) chair is appointed by the Minister of the Environment, Conservation and Parks, while other members of the SPC are appointed by the Source Protection Authority (SPA). The North Bay-Mattawa SPC currently has two vacancies: one Municipal representative and one Industry/Economic representative. Quorum requires two thirds of the nine potential members that could be appointed to the SPC (i.e., six members present).

Municipal representatives are generally to be forwarded by municipal councils, however, pursuant to O. Reg. 288/07, s. 3 (7):

if the councils of the municipalities that are in a group established under clause (1) (a) jointly submit a list for the purpose of subsection (3) by the date specified under paragraph 5 of subsection (5), but the list contains the names of fewer persons than the number of members assigned to the group under clause (1) (b), the source protection authority may select the other persons to be appointed for the group pursuant to subsection (3). O. Reg. 288/07, s. 3 (7)

NBMCA did not receive a list with enough people to fill the three municipal representative positions when it was posted in winter-spring 2025, and therefore the SPA may appoint other individuals.

To align with the staggered appointments that were made in June of 2025, it is proposed that his term of appointment at this time be two years and two months.

Recommended Resolution:

That, pursuant to section 9 and other requirements of O.Reg. 284/07, the North Bay-Mattawa Source Protection Authority hereby appoints Greg Kirton as a Municipal representative on the North Bay-Mattawa Source Protection Committee for the duration of two years and two months, ending June 11, 2028.

And further,

That staff are directed to publish a notice on the internet of this appointment.

Reviewed by:

Liza Vandermeer, Manager, Drinking Water Source Protection

To: The Chairperson and Members of the Source Protection Committee

Origin: Angela Mills, Water Resources Specialist

Date: March 20, 2026

Report: 26-DWSP-03

Subject: Callander Issue Contributing Area – 2025 Annual Report of Research and Monitoring

Background:

Microcystin is an identified issue for the Callander municipal drinking water supply. This is a toxin that comes from cyanobacteria, also referred to as Blue-green algae in Callander Bay. High concentrations of phosphorus contribute to the growth of cyanobacteria. Activities that may contribute phosphorus to Callander Bay are considered significant threats to drinking water in the North Bay-Mattawa Source Protection Plan (SP Plan). The SP Plan (2015) requires that NBMCA in collaboration with the relevant municipalities provide an annual report to the Source Protection Authority on the activities and findings regarding research and/or monitoring undertaken with respect to the drinking water issue.

The interim total phosphorus Provincial Water Quality Objectives are as follows:

- Average (mean) total phosphorus concentrations in lakes for the ice-free period should not exceed 20 µg/L to avoid nuisance concentrations of algae;
- Where lakes naturally have total phosphorus concentrations below 10 µg/L, this should be maintained to provide a high level of protection against aesthetic deterioration; and
- Total phosphorus concentration below 30 µg/L to eliminate excessive plant growth in rivers and streams.

Analysis:

The monitoring programs as currently maintained by NBMCA were established in 2018. Lake water quality has been monitored at one site in the middle of Callander Bay and one site in the middle of Wasi Lake in partnership with the Lake Partner Program. Water samples are collected for Total Phosphorus analysis in May and August and measurements of the vertical profile of the water column using a sonde with multiple sensors during monthly site visits, including a record of temperature and dissolved oxygen.

As has been shown from sample results prior to 2021, total phosphorus can be higher for samples collected in late summer relative to those collected in early to mid-spring in Callander Bay (true in 2023 and 2024) and Wasi Lake (true for all years 2021-2024). Results shown in Figure 1 indicate total phosphorus concentrations are more variable in Wasi Lake with higher mean and median concentrations.

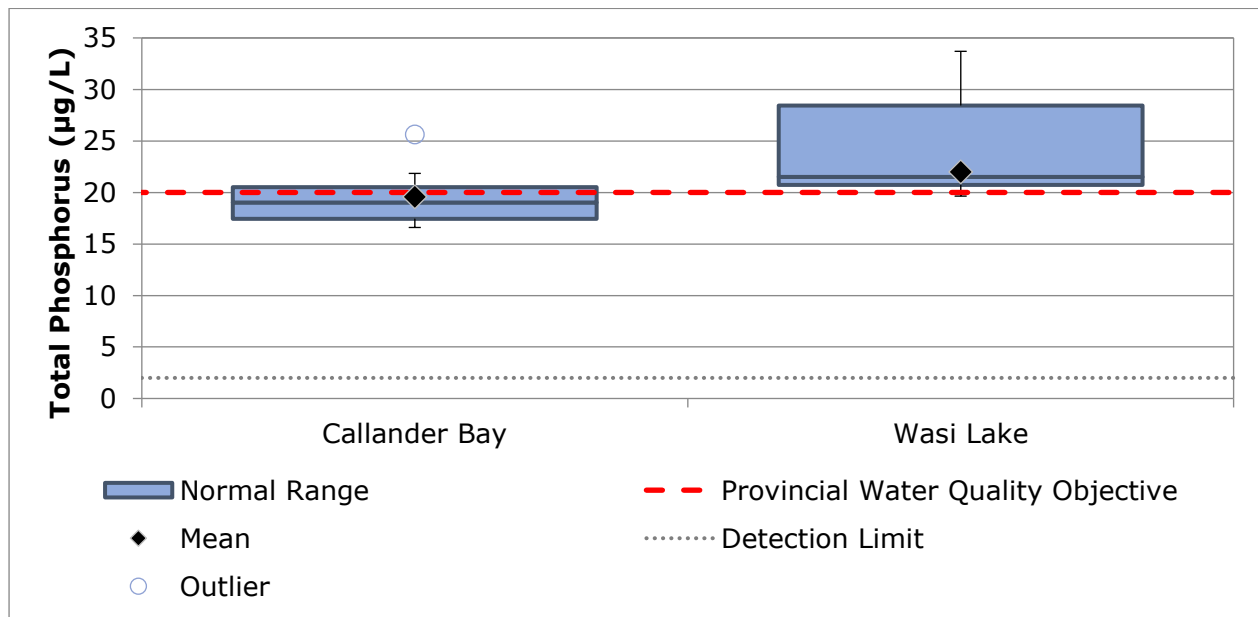


Figure 1: Lake sampling results for Total Phosphorus (2021-2025)

It has not been uncommon for water near the lakebed in Callander Bay to have anoxic conditions (<0.5 mg/L) that extend upward from the lakebed by as much as 1 m and temperatures approaching and sometimes exceeding 20 °C. The shallower Wasi Lake does not generally experience such extreme dissolved oxygen conditions and can experience warmer water temperature at the lakebed, especially in late summer.

A study was presented at the Blue-Green Algae symposium hosted by the municipality of Callander in 2025 by Dr. Elizabeth Favot (Sediment records from Lake Nipissing {ON, Canada} register a lake-wide multi-trophic response to climate change and reveal its possible role for increased cyanobacterial blooms from the Journal of Great Lakes Research, published in 2024). It concluded that cyanobacterial blooms have complex dynamics and environmental change including temperature and wind impact the water column, its temperature, stratification, and resulting dissolved oxygen concentrations at the lakebed. When lake sediments and the water column above it become anoxic, chemical reactions occur that release phosphorus from lake sediments. The data we are collecting aligns with this. Additional studies have been conducted by Dr. Dan Walters with Nipissing University, in Callander Bay.

Water quality samples are collected by NBMCA for Total Phosphorus analysis from the streams that flow into Callander Bay monthly between April and November, each year. These sites include Burford Creek, Lansdowne Creek (added in 2024), Wasi River, and Windsor Creek. Wasi River is sampled as part of the Provincial Water Quality Monitoring Program and is often also sampled through the winter. A summary of the results 2021-2025 is presented in Figure 2 and Table 1.

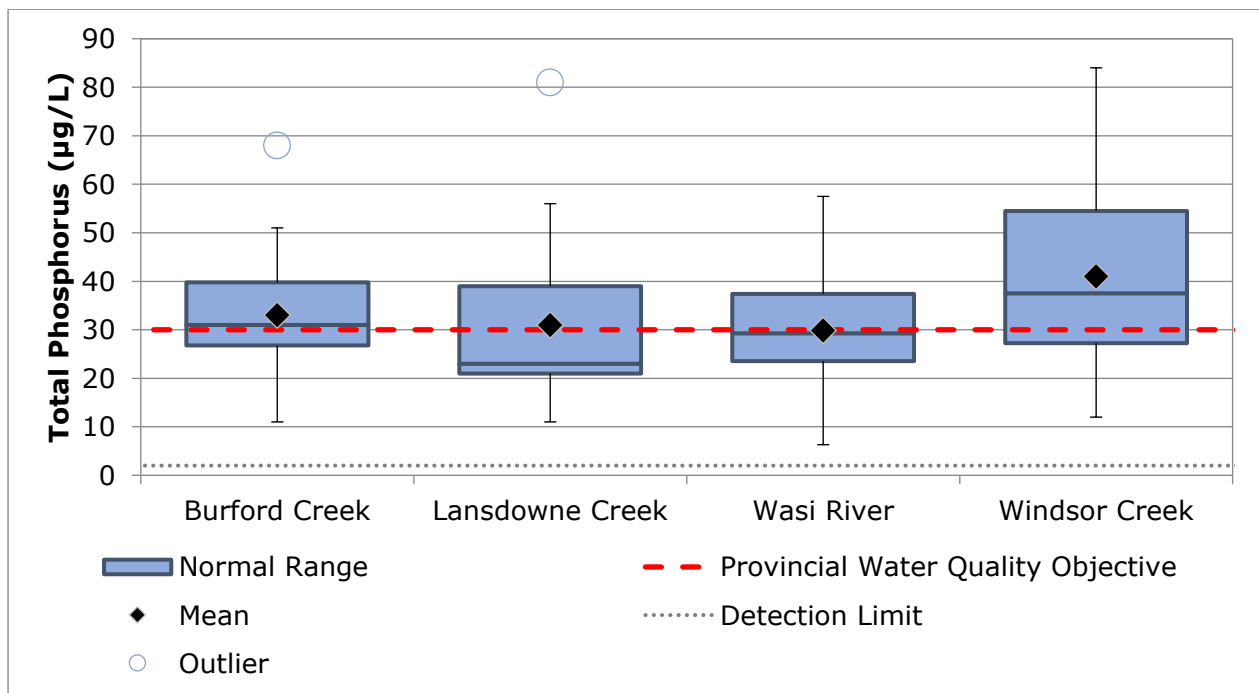


Figure 2: Overview of stream phosphorus sampled 2021-2025 in Callander Bay Tributaries (Lansdowne Creek 2024-2025 only).

Table 1: Summary of stream phosphorus samples (2021-2025)

Stream	Number of samples (2021-2025)	Average Total Phosphorus concentration (µg/L)
Burford Creek	38	33.0
Lansdowne Creek	15	31.0
Wasi River	51	30.1
Windsor Creek	38	41.1

Though Wasi River has the highest flow and therefore has the greatest absolute contribution of phosphorus to Callander Bay, Burford Creek, Lansdowne Creek and Wasi River have reported similar phosphorus concentrations. Windsor Creek has reported higher total phosphorus concentrations over a greater range. Basic analysis of applying a linear trendline to the datasets indicates Wasi River and Windsor Creek may have a decreasing trend of phosphorus concentration, however, it can be challenging to capture peak response to rain events, when turbidity and phosphorus concentrations would be highest in monthly sampling initiatives. The dataset for Burford Creek is stable. More data is required for Lansdowne Creek before trend analysis may be reliable. Comprehensive trend analysis is recommended, especially for Wasi River, where there is a long-term dataset.

Dr. April James and her students at Nipissing University, have conducted in depth studies the Wasi River watershed, including monitoring turbidity in Wasi River and developing relationships between phosphorus loading and real-time turbidity.

Looking ahead to 2026, staff intend to continue the monitoring programs. A request has been submitted to the Lake Partner Program to increase TP sampling on Callander Bay to monthly for May-August for TP analyses, coinciding with routine sonde measurements in June and July, with a potential extension of the field season into September for better assessment of ice-off mean TP concentration. Callander Bay had previously been sampled bi-weekly May to October for 2007 to 2017.

Recommendation/Recommended Resolution:

That the Source Protection Authority accept the report.

Reviewed by:

Liza Vandermeer, Project Manager, Drinking Water Source Protection

To: The Chairperson and Members of the Source Protection Committee

Origin: Angela Mills, Water Resources Specialist

Date: March 20, 2026

Report: 26-DWSP-04

Subject: North Bay-Mattawa Source Protection Area Annual Progress Report

Background:

The North Bay-Mattawa Source Protection Authority is required to submit Annual Progress Reports to the MECP and post online annually for May 1. Since 2017, our annual progress reports have been nearly identical. Upon review this year, it has been found that reporting has indicated that policies have been fully implemented but this does not reflect actual progress across the watershed. The draft 2025 Annual Progress Report is attached.

Analysis:

Sections I to III have had minimal edits relative to the 2024 Annual Progress Report. Changes to Section II, A message from your local Source Protection Committee are welcome if desired.

Section IV.1 Municipal Progress: Addressing Risks on the Ground has long been reported as Progressing Well/On Target with 100 % of municipalities having implemented Land Use Planning policies with updated Official Plan and Zoning By-laws; however, this is actually five of eight municipalities with vulnerable areas with significant threat potential. Past reporting has also indicated education and outreach policies have been fully implemented, however, as outlined in Section IV.5, only two municipal websites link to the actforcleanwater.ca website and one more links to NBMCA's home page. Five municipal websites have no reference to source protection and staff are not aware of ongoing municipal education programs for Source Protection.

Recommendation:

Staff recommend downgrading the Municipal Progress: Addressing Risks on the Ground to Satisfactory. Staff welcome any discussion and changes proposed by the Source Protection Committee.

Recommended Resolution:

That the Source Protection Authority approve the Annual Progress Report and direct staff to submit it to the MECP and post online by May 1, 2026.

Reviewed by:

Liza Vandermeer, Project Manager, Drinking Water Source Protection