



**North Bay-Mattawa Source Protection Authority
Members Meeting for August 16, 2023
at 4:30 pm IN PERSON,
NBMCA's Natural Classroom, 15 Janey Avenue, North Bay, Ontario**

A G E N D A

Procedural Matters

1. Acknowledgement of Indigenous Traditional and Treaty Lands
2. Approval of the Agenda
3. Delegation(s)
4. Declaration of Pecuniary Interest
5. Adoption of Previous Minutes of April 26, 2023

Verbal Report

6. Municipal Pre-Consultation update

Business Reports

7. PFAS Follow up from April 26th meeting (**SPA Report #1**)

Other Business

8. New Business
9. Adjournment

**NORTH BAY-MATTAWA SOURCE PROTECTION AUTHORITY
MINUTES
of the**

THIRD meeting of the North Bay-Mattawa Source Protection Authority held at 4:30 p.m. on August 16th, 2023 in the NBMCA's Natural Classroom, 15 Janey Avenue, North Bay Ontario.

MEMBERS PRESENT:

Bonfield, Township of	-	Steve Featherstone
Callander, Municipality of	-	Irene Smit
Calvin, Township of	-	Bill Moreton
Chisholm, Township of	-	Nunzio Scarfone
East Ferris, Municipality of	-	Steve Trahan
Mattawa, Town of	-	Loren Mick
Mattawan, Municipality of	-	Michelle Lahaye
Nipissing Township	-	Steve Kirkey
North Bay, City of	-	Peter Chirico
North Bay, City of	-	Lana Mitchell
Papineau –Cameron, Township of	-	Shelley Belanger
Powassan, Municipality of	-	Dave Britton
Strong Township	-	Jim Ronholm

MEMBER(S) ABSENT:

North Bay, City of	-	Chris McNamee
South River, Village of	-	Teri Landt

ALSO PRESENT:

Chitra Gowda, Chief Administrative Officer (CAO), Secretary-Treasurer
Rebecca Morrow, Executive Assistant
Paula Scott, Director, Planning & Development/Deputy CAO
Helen Cunningham, Director, Corporate Services
David Ellingwood, Director, Water Resources
Aaron Loughheed, Assistant Manager, Finance
Valerie Murphy, Regulations Officer
Angela Mills, Water Resources Specialist
Gethan Kattera, Water Resources Coordinator

1. Acknowledgement of Indigenous Traditional and Treaty Lands

Dave Britton read a statement acknowledging Indigenous and Treaty Lands. Dave Britton then asked David Ellingwood to introduce a new staff member. David Ellingwood introduced Gethan Kattera, Water Resources Coordinator. Gethan greeted members and introduced himself. Members welcomed Gethan.

2. Approval of the Agenda

After discussion the following resolution was presented:

Resolution No. SPA12-23, Kirkey-Smit

THAT the agenda be approved as presented.

Carried Unanimously

3. Delegations

There were no delegations.

4. Declaration of Pecuniary Interest

None.

5. Adoption of Previous Minutes of April 26, 2023

After discussion the following resolution was presented:

Resolution No. SPA13-23, Ronholm-Mitchell

THAT the Minutes of the meeting held on April 26, 2023 are adopted as written.

Carried Unanimously

6. Municipal Pre-Consultation update

David Ellingwood gave a verbal presentation on the draft Source Protection Plan and Assessment Report documents that were sent out for pre-consultation in June and July, 2023. David informed the members that he had made a presentation to South River council and comments had been received. After the discussion the members thanked David for his presentation.

7. PFAS Follow up from April 26th meeting

David Ellingwood presented his report to members. After discussion the members thanked David for his report and the following resolution was presented:

Resolution No. SPA14-23, Trahan-Scarfone

THAT the North Bay-Mattawa Source Protection Authority receive the PFAS report for information purposes and append this report to the minutes of the meeting;

AND THAT the Source Protection Committee is encouraged to remain informed about PFAS water quality standards or potential future considerations in the Assessment Report and Source Protection Plan.

8. New Business

None recorded.

9. Adjournment (5:04 p.m.)

As there was no new business, the following resolution was presented:

Resolution No. SPA15-23 Featherston Milk

THAT the meeting be adjourned and the next meeting be held on Wednesday October 25, 2023, at 4:00 pm or at the call of the Chair.

Carried Unanimously

Dave Britton, Chair

Chitra Gowda, Chief Administrative Officer,
Secretary Treasurer



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

ORIGIN: David Ellingwood, Director, Water Resources

DATE: July 31, 2023

SUBJECT: Report on PFAS Chemicals

Background:

PFAS refers to various synthetic chemicals that include per- and poly-fluoroalkyl substances (PFAS). Common uses for these chemicals are non-stick coatings and fire suppressants. The presence of PFAS has been noted locally in the Trout Lake watershed, particularly Lees Creek and Trout Lake itself. For Source Water Protection purposes, PFAS chemicals cannot be considered currently in the absence of federal and provincial guidelines. Such guidelines are actively under discussion by the federal government.

Analysis:

Properties: Per- and poly-fluoroalkyl substances (PFAS) are a large class of synthetic chemicals. There are thousands of variations that have been brought to market since the 1950s. Some have larger molecules that can transform in the environment to produce simpler PFAS (Environment and Climate Change Canada and Health Canada, 2023). However, most PFAS chemicals are very stable and persist in the environment (Health Canada, 2023).

Usage: The properties of this class of chemical have led to a wide range of applications, including industrial processes and consumer products such as water and grease repellents and non-stick cookware (Environment and Climate Change Canada and Health Canada, 2023). They have also been used in aqueous film-forming foams (AFFFs) used in firefighting training and to extinguish fuel-based fires (Health Canada, 2023).

Movement: Restrictions and prohibitions have been implemented for the manufacture, import, and use of some specific PFAS (Health Canada, 2023). PFAS can enter the environment through releases from industrial facilities, landfills, wastewater treatment plants, and the reuse of biosolids from wastewater treatment plants, as well as being carried through the air, surface water, groundwater, and soils (Health Canada, 2023). There may be risks of PFAS transferring to agricultural crops or livestock for human consumption if sourced near PFAS hotspots, such as firefighting training sites (Environment and Climate Change Canada and Health Canada, 2023).

General Risks: PFAS in humans can impact the immune system, reproduction, development, endocrine disruption (thyroid), nervous system, and metabolism (including lipids, glucose homeostasis, and body weight) (Health Canada, 2023). Some PFAS also bioaccumulate in the food web, with adverse impacts on humans and wildlife alike; some PFAS can be readily absorbed by the body and bind to proteins in the blood which can then accumulate in the liver, kidneys, or be transferred to fetuses (Health Canada, 2023; Kudo, 2015). Data regarding PFAS in Canadian freshwater and drinking water sources remains limited; however, some well-studied PFAS are persistent in the environment and have been detected in humans, wildlife, and environmental media worldwide (Wang et al., 2017 in Health Canada, 2023).

Drinking Water Treatment: Common drinking water treatment technologies are not effective for PFAS removal, and there is no single treatment that will remove all PFAS under all conditions. The most effective technologies include granular activated carbon, membrane filtration (reverse osmosis and nanofiltration) and anion exchange; however, source water characteristics and PFAS species and concentration will influence which technologies are best suited for a particular drinking water treatment facility (Health Canada, 2023). Disposal of water treatment residuals and backwash water which would contain elevated PFAS concentrations should also be considered. Residential-scale treatment technologies are also available.

Water Quality Guidelines

In 2017, an interim drinking water guideline of 70 ng/L (nanograms per litre) for a sum of 11 specific types of PFAS was provided for Ontario by the MECP (Ministry of Environment, Conservation and Parks, 2022). More recently, the MECP has been working with Health Canada and the other provinces and territories to develop new Canadian Drinking Water Quality Guidelines for PFAS as a class. This proposed objective was released for public consultation in February 2023, as 30 ng/L for the sum of all PFAS detected in drinking water (Health Canada, 2023). This method is to use the full list of substances similar to a United States Environmental Protection Agency method (Health Canada, 2023). Alternatively, a method validated by another jurisdiction that measures at least 18 PFAS with total concentration of not more than 30 ng/L may also be used. Once finalized, this guideline will replace the previous guidelines and screening values derived for individual PFAS (Health Canada, 2023).

Health Canada's (2023) considerations in developing the proposed 30 ng/L objective include:

- PFAS removal efficacy
- Treatment and analytical technologies
- The lowest concentrations technically achievable for a larger number of quantifiable PFAS to reduce potential drinking water exposure.

Local Detection of PFAS

In the North Bay area, it has been widely reported that PFAS is present in Lees Creek and Trout Lake. The PFAS in North Bay are suspected to have come from the CFB North Bay/Airport area, where they are thought to be from fire-fighting foam used in the past to fight fires and to train firefighters (North Bay Parry Sound District Health Unit, 2022). Other sites where PFAS have been detected include Lake Nipissing, Doran Creek, Chippewa Creek, La Vase River, North Bay Jack Garland Airport, the Canadian Forces Base (CFB) North Bay, and monitoring wells located near CFB North Bay (North Bay Parry Sound District Health Unit, 2022). PFAS have also been detected in the surroundings of those areas in smaller concentrations (North Bay Parry Sound District Health Unit, 2022). A long-standing drinking water advisory for Lees Creek remains in place as well as a fish consumption advisory for fish from the creek issued by the MECP (City of North Bay, 2023).

The Department of National Defence has hired consultants to study the presence of PFAS near their North Bay facilities and develop a long-term plan for monitoring and potential remediation activities. The City of North Bay has been involved in these studies.

Source Protection Considerations:

The types of contaminants that can be considered in the Assessment Report and Source Protection Plan are governed by the Clean Water Act, its associated regulations and the Technical Rules. Contaminants can be either prescribed in the regulation or identified as a local threat. However, there must be an established standard by which to compare the contaminant's relative risk. At this point in time, there is no such standard established for PFAS in Ontario regulations.

Once a guideline is established within Ontario for PFAS, then local water samples can be assessed against the standard. Should the levels of PFAS be found through an assessment to approach or exceed the standard, then the Source Protection Committee could consider including the information in the Assessment Report and determining what types of policies to include in the Source Protection Plan.



Recommendation:

THAT the North Bay-Mattawa Source Protection Authority receive the PFAS report for information purposes and

AND THAT the Source Protection Committee is encouraged to remain informed about PFAS water quality standards or potential future considerations in the Assessment Report and Source Protection Plan.

Recommended Resolution:

THAT the North Bay-Mattawa Source Protection Authority receive the PFAS report for information purposes and append this report to the minutes of the meeting;

AND THAT the Source Protection Committee is encouraged to remain informed about PFAS water quality standards or potential future considerations in the Assessment Report and Source Protection Plan.

David Ellingwood
Director, Water Resources