



## First Regular Lakehead Source Protection Authority Meeting

Lakehead Region Conservation Authority

Apr 20, 2023 immediately after Lakehead Region Conservation Authority Meeting

130 Conservation Road/Microsoft Teams

### Agenda

#### 1. ADOPTION OF AGENDA

*THAT: the Agenda is adopted.*

#### 2. DISCLOSURE OF INTEREST

#### 3. MINUTES OF PREVIOUS MEETING

*THAT: the Minutes of the Lakehead Source Protection Authority Second Regular Meeting held on Wednesday, May 25, 2022, are adopted as published.*

#### 4. SOURCE PROTECTION IMPLEMENTATION

##### 4.1. Source Protection Annual Reporting

*THAT: the Lakehead Source Protection Plan Annual Report, the MECP Lakehead Source Protection Annual Progress Report, the MECP Source Protection 2022 Supplemental Form, and 2022 Policy Implementation Status for the reporting period of January 1, 2021 to December 31, 2022 are adopted **AND FURTHER THAT** the MECP Lakehead Source Protection Annual Progress Report and the MECP Source Protection 2022 Supplemental Form and 2022 Policy Implementation Status are submitted to the MECP Director **AND FURTHER THAT** the reports are posted to the Source Protection Website.*

##### 4.2. Section 36 Workplan

*THAT: the Lakehead Source Protection Area Section 36 Workplan is adopted **AND FURTHER THAT** a copy will be submitted to the Director of the Ministry of the Environment, Conservation and Parks (MECP) before May 7, 2023.*

#### 5. NEW BUSINESS

#### 6. NEXT MEETING

April 2024.

## 7. ADJOURNMENT

*THAT: the time being \_\_\_\_\_p.m. AND FURTHER THAT there being no further business we adjourn.*



Minutes of the Second Regular Meeting of the Lakehead Source Protection Authority (SPA) held on Wednesday, May 25, 2022, at the Lakehead Region Conservation Authority and via Microsoft Teams. The Chair called the Meeting to order at 5:02 p.m.

**Present:** Donna Blunt, Chair  
Grant Arnold, Vice-Chair  
Rudy Buitenhuis  
Erwin Butikofer  
Andrew Foulds  
Andrea Goid  
Allan Vis  
Umed Panu

**Regrets:** Jim Vezina  
Joel Brown  
Trevor Giertuga

**Also**

**Present:** Tammy Cook, Chief Administrative Officer  
Gail Willis, Watershed Manager

**1. ADOPTION OF AGENDA**

Resolution #5/22

Moved by Umed Panu, Seconded by Erwin Butikofer

***“THAT: the Agenda is adopted.” CARRIED.***

**2. DISCLOSURE OF INTEREST**

None.

**3. MINUTES OF PREVIOUS MEETING**

Resolution #6/22

Moved by Rudy Buitenhuis, Seconded by Andrea Goid

***“THAT: the Minutes of the Lakehead Source Protection Authority First Regular Meeting held on April 27, 2022, are adopted as published.” CARRIED.***

**4. IN-CAMERA AGENDA**

Resolution #7/22

Moved by Allan Vis, Seconded by Andrew Foulds

***“THAT: we now go into Committee of the Whole (In-Camera) at 5:04 p.m.” CARRIED.***

Resolution #8/22

Moved by Erwin Butikofer, Seconded by Umed Panu

***“THAT: we now go into Open Meeting at 5:07 p.m.” CARRIED.***

Resolution#9/22

Moved by Rudy Buitenhuis, Seconded by Andrea Goold

***“THAT: the Staff Report SWP-01-2022 be received.”***

***“THAT Mike Fabius be appointed to the Source Protection Committee representing the Environmental/Health/Other Interests of the General Public until November 30, 2026.” CARRIED.***

**5. NEW BUSINESS**

None.

**6. NEXT MEETING**

To be determined.

**7. ADJOURNMENT**

Resolution #10/22

Moved by Andrew Foulds, Seconded by Allan Vis

***“THAT: the time being 5:08 p.m. AND FURTHER THAT there being no further business THAT we adjourn.” CARRIED.***

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Chair

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Chief Administrative Officer



<b>PROGRAM AREA</b>	SOURCE WATER PROTECTION	<b>REPORT NO.</b>	SWP-02-2023
<b>DATE PREPARED</b>	April 12, 2023	<b>FILE NO.</b>	
<b>MEETING DATE</b>	April 20, 2023		
<b>SUBJECT</b>	8 <sup>th</sup> Annual Lakehead Source Protection Plan Report		

**RECOMMENDATION**

Suggested Resolution

*“THAT: the Lakehead Source Protection Plan Annual Report, the MECP Lakehead Source Protection Annual Progress Report, the MECP Source Protection 2022 Supplemental Form, and 2022 Policy Implementation Status for the reporting period of January 1, 2021 to December 31, 2022 are adopted **AND FURTHER THAT** the MECP Lakehead Source Protection Annual Progress Report and the MECP Source Protection 2022 Supplemental Form and 2022 Policy Implementation Status are submitted to the MECP Director **AND FURTHER THAT** the reports are posted to the Source Protection Website.”*

**LINK TO STRATEGIC PLAN (2023-2027)**

Conserve and Sustain

- *Collaborate and partner with agencies and community organizations to take action in the protection of natural habitats and ecosystems, share decision-making, and address emerging issues that impact the health and sustainability of the Lakehead watershed.*

**EXECUTIVE SUMMARY**

As a requirement under the *Clean Water Act, 2006*, Source Protection Authorities (SPAs) are required to provide an annual progress report to the Director of the Ministry of the Environment, Conservation and Parks (MECP) by May 1<sup>st</sup> of every given reporting year.

The eight annual progress report has been completed for the period of January 1, 2022 to December 31, 2022 for the Lakehead Source Protection Area as is being presented to the SPA for approval prior to submission to the MECP. The report concludes that all policies within the Source Protection Plan have been implemented by the respective implementing bodies during the reporting period.

**DISCUSSION**

As a requirement under the *Clean Water Act, 2006*, Source Protection Authorities (SPAs) are required to provide an annual progress report to the Director of the Ministry of the Environment, Conservation and Parks (MECP) by May 1<sup>st</sup> of every given reporting year. The report must also

be provided to the Source Protection Committee (SPC) at least 30 days prior to submitting to the Director and be provided to the public as soon as reasonably possible after submission to the Director. This report represents the eighth annual progress report prepared by the Lakehead SPA, covering the period of January 1, 2022, to December 31, 2022.

As required, annual reporting was received from the implementing bodies, (Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit (TBDHU)) by the deadline (February 1, 2023) (attachments 1 and 2).

Actions completed by the Municipality of Oliver Paipoonge over the reporting period included: Completion of the annual report to the SPA. There were no Official Plan and Zoning By-law amendment applications within WHPA-A in 2022.

Future policy actions required by the Municipality of Oliver Paipoonge include: continuing to circulate all Official Plan and Zoning by-law *Planning Act* applications within WHPA-A to the SPA; continuing to prohibit prohibited land uses in WHPA-A; continue to locate salt and snow storage outside of WHPA-A; continue to minimize salt application in WHPA-A; continue to have the facts sheets related to DNAPLs and plane de-icer available for distribution; and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the Thunder Bay District Health Unit over the reporting period included: completion of the annual report to the SPA. The initial required septic system inspections were completed by the Thunder Bay District Health Unit as of November 2016 and were reinspected as required (i.e., within 5 years) in 2019, 2020 and 2021.

Future policy actions required by the Thunder Bay District Health Unit include: re-inspect all septic systems within WHPA-A every five years, with the next re-inspection cycle starting in 2024, and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the City of Thunder Bay over the reporting period included placing three buoys marking the anchorage boundary in proximity to the intake during the ice-free period.

Future policy actions recommended to be completed by the City of Thunder Bay include: annually place three buoys marking the anchorage boundary in proximity of the intake; provide the SPA copies of any updates to the Spill Prevention and Contingency Plan and a summary of any actions taken to protect the Bare Point Intakes, as well as providing updates to the Standard Operating Procedure related to monitoring and reporting of blue-green algae blooms.

For the reporting period of January 1, 2022 to December 31, 2022, all policies as outlined in the Lakehead Source Protection Plan have been implemented by the respective implementing bodies or are in the process of being implemented as required.

Attachment #3 is the eighth annual progress report in the format developed by LRCA staff, which will be made available to the public on the source protection website as it provides a more comprehensive summary of the program. Attachment #4 is the Source Protection 2022

Supplemental Form (MECP template) and Attachment #5 is the 2022 Policy Implementation Status Report (MECP template).

### **FINANCIAL IMPLICATIONS**

Staff time required and any costs associated to complete annual reporting deliverables falls within the current funding agreement with MECP. The current funding agreement expires March 2024. Future budget requests will consider future required funding.

### **CONCLUSION**

The Eighth Annual Lakehead Source Protection Plan reporting is complete and will be submitted to the MECP after SPA approval.

### **BACKGROUND**

The Lakehead Source Protection Plan is the culmination of the Lakehead SPC's efforts to draft policies to ensure that significant threats to Municipal Drinking Water Sources in the Lakehead Source Protection Area cease to be or never become significant drinking water threats. The Lakehead Source Protection Plan applies to the two Municipal Drinking Water Sources located within the Lakehead Source Protection Area that include: Bare Point Water Treatment facility providing drinking water to the City of Thunder Bay and the Rosslyn Village Drinking Water Facility, which provides drinking water to 32 homes within Rosslyn Village.

The Plan contained six legally binding policies that applied to two implementing bodies: Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit. Two non-legally binding policies were included in the Plan that applied to the City of Thunder Bay, which were considered "best management practices" and are not mandatory but recommended.

To monitor the progress of the policies in the Plan, the implementing bodies are required to provide annual reports to the SPA by February 1<sup>st</sup> of every reporting year, summarizing the activities of the previous year.

### **REFERENCE MATERIAL ATTACHED**

Attachment 1 – Municipality of Oliver Paipoonge Annual Reporting 2022

Attachment 2 – TBDHU Annual Source Protection Report 2022

Attachment 3 – Lakehead Source Protection Plan Annual Report, Reporting January 1, 2022 to December 31, 2022

Attachment 4 – Source Protection 2022 Supplemental Form

Attachment 5 – 2022 Policy Implementation Status

**PREPARED BY:**

Melissa Hughson, Watershed Manager

<p>THIS REPORT SIGNED AND VERIFIED BY:</p> <p><i>Tammy Cook</i></p> <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> <p>April 12, 2023</p>
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**Lakehead Source Protection Plan**  
**Annual Report to the Lakehead Source Protection Authority**  
**Implementing Body: Municipality of Oliver Paipoonge**  
 4569 Oliver Road, Murillo, ON, P0T 2G0  
 Phone: (807) 935-2613

<b>Section 1 – General Information (Annual Report due by February 1 of each calendar year)</b>	
<b>Reporting Body Information:</b>	
<b>Reporting Year:</b>	January 1, 2022 to December 31, 2022
<b>Date of Report:</b>	January 27, 2023
<b>Report Completed By:</b>	Wayne Hanchard

<b>Section 2 - Policies</b>	
<b>Policy Number:</b>	<b>Policy Details:</b>
<b>RV.1.CW-PA</b>	<b>Prohibits the following future significant threats: establishing a waste disposal site, sewage treatment facilities (not including those under 10,000 litres a day), storage of organic solvents, storage of fuel, the storage of pure dense non-aqueous liquids (DNAPLs) and agricultural uses.</b>
<b>Policy Number:</b>	<b>Policy Details:</b>
<b>RV.2.M-PA</b>	<b>This Policy monitors the steps taken to implement the above Policy (RV.1.CW-PA)</b>
<b>Steps taken to implement Policy (RV.1.CW-PA)</b>	
<b>The following land uses are prohibited in WHPA-A:</b>	<b>Were any of the land uses permitted during the reporting period?</b>
Application of hauled sewage to land.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Mine tailings stored in a pit or in impoundment structures.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Land farming of petroleum refining waste.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Landfilling of hazardous waste.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Landfilling of municipal waste.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Land disposal of commercial or industrial waste.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Land disposal of liquid industrial waste.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Storage of PCBs.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A waste disposal site that is not approved to accept hazardous waste or liquid industrial waste but accepts small volumes that are exempt from O. Reg. 347.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## Lakehead Source Protection Plan Annual Report – Oliver Paipouge

<b>The following land uses are prohibited in WHPA-A:</b>	<b>Were any of the land uses permitted during the reporting period?</b>
Sewage treatment facilities, not including septic systems under 10,000 litres per day.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Non-residential uses where organic solvents occur, including but not limited to dry cleaning operations, vehicle service centres, paint and hardware stores, retail or wholesale pharmaceutical storage and distribution centres.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Uses where fuel is stored including but not limited to, non-residential fuel storage, retail fuel outlets, uses where backup generators are required (with the exception of the backup generator used at the Rosslyn Village Water Treatment Plant), industrial operations and any other uses involving the bulk handling and storage of fuel.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Uses which include the storage of DNAPLs except for incidental volumes for personal domestic use.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Future Agricultural uses.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p><b>The Official Plan and Zoning By-Law shall be brought into conformity with provisions 1 to 6 in the above noted policy (i.e.: prohibited uses listed above) in accordance with Section 26 of the Planning Act.</b></p> <p><b>Outline all amendments to the Official Plan and Zoning By-Law that were undertaken to achieve conformity (i.e.: prohibit uses in WHPA-A).</b></p>	
None.	

## Lakehead Source Protection Plan Annual Report – Oliver Paipooonge

<b>Policy Number:</b> RV.3.CW-SP	<b>Policy Details:</b> 1. To address the handling and storage of road salt (existing and future) and storage of snow (existing and future) the Municipality of Oliver Paipooonge shall prepare a Salt Management Plan to address the sensitivity of the Rosslyn Village WHPA-A within one year of the Source Protection Plan taking effect [by Sept. 30, 2014]. Specific actions that should be included in the plan to address the risk of road salt effects on source water include:  a) Locating salt and snow storage areas outside of the WHPA-A. b) Minimizing application of road salt within WHPA-A.  2. Copies of any Official Plan and Zoning By-law amendment applications in WHPA-A shall also be provided by the Municipality of Oliver Paipooonge to the Lakehead Source Protection Authority once they have been received for review and comment and shall provide copies of these amendments once they have been adopted. This procedure must be established within one year of the Source Protection Plan taking effect [by Sept. 30, 2014].
<b>Policy Number:</b> RV.4.M.SP	<b>Policy Details:</b> This Policy monitors the steps taken to implement the above Policy (RV.3.CW-SP).
<b>Steps taken to implement Policy (RV.3.CW-SP)</b>	
Describe the steps taken to determine the extent to which the specified action has achieved its objectives and any information on the results of those steps:	
Oliver Paipooonge must prepare a Salt Management Plan once it has been adopted (by September 30, 2014).	
Date of completed Salt Management Plan:	September 22, 2014
Date Salt Management Plan was adopted by Council:	October 15, 2014
<input type="checkbox"/> A copy of Oliver Paipooonge's current Salt Management Plan is attached.	

## Lakehead Source Protection Plan Annual Report – Oliver Paipooonge

Are any salt or snow storage areas located in WHPA-A? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, provide location and description of quantity of salt and/or snow stored:
Is road salt applied within WHPA-A? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, provide details of application (i.e.: material, spread, frequency of applications, etc.):
Has a procedure been established to provide the SPA all zoning by-law amendments in WHPA-A? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, provide outline of procedure: All planning applications are circulated to the LRCA for comment and any applications within the WHPA-A areas are highlighted.
<input type="checkbox"/> Copies of Official Plan and Zoning By-Law amendment applications in WHPA-A are attached.
Please list the attached items related to this policy ( <i>if applicable</i> ): No applications were completed in WHPA-A in 2022.

## Lakehead Source Protection Plan Annual Report – Oliver Paipoonge

<b>Policy Number:</b>	<b>Policy Details:</b>
<b>RV.5.CW-EO</b>	<p><b>1. The Municipality of Oliver Paipoonge shall develop an education program regarding the potential harmful effects of plane de-icer within the WHPA-A. This material will be required in the event of an airport being proposed.</b></p> <p><b>2. To address all agricultural related drinking water threats (existing and future – Agricultural Source Material, Non-Agricultural Source Material, commercial fertilizer, pesticide and livestock grazing or pasturing of land, an outdoor confinement area or farm animal yard) the Municipality of Oliver Paipoonge shall develop an education and awareness program to advise the landowner in WHPA-A whose property currently contains existing agricultural threats. The Municipality shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats. This information shall be developed and distributed within 2 years of the Source Protection Plan taking effect [by Sept. 30, 2015].</b></p> <p><b>3. The Municipality shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats related to the harmful effects of DNAPLs impacting groundwater resources.</b></p>
<b>Policy Number:</b>	<b>Policy Details:</b>
<b>RV.6.M-EO</b>	<b>This Policy monitors the steps taken to implement the above Policy (RV.5.CW-EO)</b>
<b>Have the following education/outreach materials been produced?</b>	<b>If produced, how many copies have been distributed to residents/or number of people reached?</b>
Plane de-icer educational material. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Agricultural drinking water threats educational material (must be prepared and distributed by September 30, 2015). <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
DNAPL educational material. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Lakehead Source Protection Plan Annual Report – Oliver Paipoonge

<input type="checkbox"/> Copies of Oliver Paipoonge's plane de-icer educational material is attached.
<input type="checkbox"/> Copies of Oliver Paipoonge's agricultural drinking water threats educational material is attached.
<input type="checkbox"/> Copies of Oliver Paipoonge's DNAPL educational material is attached.
Items are not attached because ( <i>if applicable</i> ):
Please list all additional items that are attached related to this policy ( <i>if applicable</i> ):

This report has been reviewed and certified by the Municipality of Oliver Paipoonge CAO:

Name (print): Wayne Hanchard
Signature: <i>Wayne Hanchard</i>
Title: CAO/Clerk/Deputy Treasurer

*For internal use only:*

Date received by LRCA staff:
Date accepted by Lakehead SPA:
Date forwarded to MOE:

**Revision Date: January 6, 2020**



**Lakehead Source Protection Plan**  
**Annual Report to the Lakehead Source Protection Authority**  
**Implementing Body: Thunder Bay District Health Unit**

999 Balmoral St, Thunder Bay, ON P7B 6E7

Phone: (807) 625-5900

<b>Section 1 – General Information (Annual Report due by February 1 of each calendar year)</b>	
<b>Reporting Body Information:</b>	
<b>Reporting Year:</b>	2022
<b>Date of Report:</b>	
<b>Report Completed By:</b>	Rick Kraemer

<b>Section 2 - Policies</b>				
<b>Policy Number:</b>		<b>Policy Details:</b>		
RV.3.CW-SP		All existing and future septic systems within WHPA-A must be inspected by June 20, 2016, and every 5 years thereafter		
<b>Property ID #</b>	<b>Address in WHPA-A:</b>	<b>Inspected during reporting year:</b>	<b>Date of Inspection (if applicable):</b>	<b>Date of Last Inspection:</b>
1	1 Alder Lane*	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 20, 2019
2	2 Alder Lane	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 23, 2021
3	3 Alder Lane*	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 23, 2021
4	9 Alder Lane	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 23, 2021
5	13 Alder Lane	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 20, 2019
6	114 Maple St.*	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 23, 2021
7	117 Maple St.*	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		December 23, 2021

## Lakehead Source Protection Plan Annual Report - TBDHU

8	118 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Initial Inspection July 19, 2016	
9	121 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Initial Inspection July 19, 2016	
10	122 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date October 6, 2014	
11	127 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date July 19, 2016	December 23, 2021
12	128 Maple St.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
13	129 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date July 19, 2016	
14	130 Maple St.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
15	133 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date July 19, 2016	December 23, 2021
16	134 Maple St.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
17	135 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date July 19, 2016	December 23, 2021
18	138 Maple St.*	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date October 6, 2014	
19	139 Maple St.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date July 19, 2016	December 23, 2021
20	3460 Rosslyn Rd.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	
21	3466 Rosslyn Rd.*	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	



22	3470 Rosslyn Rd.*	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	
23	3476 Rosslyn Rd.*	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	
24	3480 Rosslyn Rd.*	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	
25	3482 Rosslyn Rd.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial Inspection Date November 6, 2015	

*\*These residences received new septic systems in 2011-2012 under ODWSP funding program*

<b>Policy Number:</b>	<b>Policy Details:</b>
<b>RV.4.M.SP</b>	<b>This Policy monitors the steps taken to implement the above Policy (RV.3.CW-SP)</b>
<b>Steps taken to implement Policy (RV.3.CW-SP)</b>	
<b>Describe the steps taken to determine the extent to which the specified action has achieved its objectives and any information on the results of those steps:</b>	
<input checked="" type="checkbox"/> No steps have been taken because:	
<input type="checkbox"/> The following steps have been taken:	
<b>Provide a summary compliance report outlining any corrective action found to be necessary as a result of the Sewage Systems Maintenance Program:</b>	
<input type="checkbox"/> A Summary Compliance Report is attached, or see below:	

Policy Number:	Policy Details:
RV.5.CW-EO	<p><b>This Policy number is designed to educate the residents of WHPA-A on septic threats on their property. Must be in place by September 30, 2015. Must be available for a minimum of two years (i.e. Sept. 30, 2017) and must include:</b></p> <p>a) <b>The reasons for the required inspection program.</b>                      b) <b>Maintenance of systems.</b>                      c) <b>Various types of allowed systems.</b>                      d) <b>Best management practices for using a system</b></p>
RV.6.M-EO	<p><b>This Policy monitors the steps taken to implement the above Policy (RV.5.CW-EO)</b></p>
<p><b>Steps taken to implement Policy (RV..CW-EO)</b></p>	
<p><input type="checkbox"/> No steps have been taken because:</p>	
<p><input type="checkbox"/> The following steps have been taken:</p> <p><input type="checkbox"/> Educational/Outreach materials have been completed and attached to this report.  <i>Please list the attached materials:</i></p>	
<p><input type="checkbox"/> Educational/Outreach materials are currently in draft form.</p>	<p><input checked="" type="checkbox"/> Educational/Outreach materials have been distributed to WHPA-A residents.</p>
<p><input type="checkbox"/> Research has begun on these materials, but no draft copy has been created.</p>	<p>Distributed on (<i>insert date</i>):                      2015 - 2017</p>

This report has been reviewed and certified by the Thunder Bay District Health Unit:

Name (print):
Signature:
Title: Manager of Environmental Health Programs

*For internal use only:*

Date received by LRCA:
Date accepted by SPA:
Date forwarded to MOE:

**Revision Date:** January 8, 2015

# Lakehead Source Protection Plan Annual Report

Reporting Period  
January 1, 2022 to December 31, 2022

Prepared by the Lakehead Source Protection Authority



# Lakehead Source Protection Plan Annual Report

Reporting Period:  
January 1, 2022 to December 31, 2022

April 20, 2023

Prepared by:

Lakehead Source Protection Authority

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## Executive Summary

As a requirement under the *Clean Water Act, 2006*, Source Protection Authorities (SPAs) are required to provide an annual progress report to the Director of the Ministry of the Environment, Conservation and Parks (MECP) by May 1<sup>st</sup> of every given reporting year. The report must also be provided to the Source Protection Committee (SPC) at least 30 days prior to submitting to the Director and be provided to the public as soon as reasonably possible after submission to the Director. This report represents the eighth annual progress report prepared by the Lakehead SPA, covering the period of January 1, 2022, to December 31, 2022.

The Lakehead Source Protection Plan is the culmination of the Lakehead SPC's efforts to draft policies to ensure that significant threats to Municipal Drinking Water Sources in the Lakehead Source Protection Area cease to be or never become significant drinking water threats. The Lakehead Source Protection Plan applies to the two Municipal Drinking Water Sources located within the Lakehead Source Protection Area that include: Bare Point Water Treatment facility providing drinking water to the City of Thunder Bay and the Rosslyn Village Drinking Water Facility, which provides drinking water to 31 homes within Rosslyn Village.

The Plan contained six legally binding policies that applied to two implementing bodies: Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit. Two non-legally binding policies were included in the Plan that applied to the City of Thunder Bay, which were considered "best management practices" and are not mandatory but recommended.

In order to monitor the progress of the policies in the Plan, the implementing bodies are required to provide annual reports to the SPA by February 1<sup>st</sup> of every reporting year, summarizing the activities of the previous year. To date ten annual reports have been received by the Lakehead SPA from the implementing bodies.

Actions completed by the Municipality of Oliver Paipoonge over the reporting period included: Completion of the annual report to the SPA. There were no Official Plan and Zoning By-law amendment applications within WHPA-A in 2022.

Future policy actions required by the Municipality of Oliver Paipoonge include: continuing to circulate all Official Plan and Zoning by-law *Planning Act* applications within WHPA-A to the SPA; continuing to prohibit prohibited land uses in WHPA-A; continue to locate salt and snow storage outside of WHPA-A; continue to minimize salt application in WHPA-A; continue to have the facts sheets related to DNAPLs and plane de-icer available for

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distribution; and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the Thunder Bay District Health Unit over the reporting period included: completion of the annual report to the SPA. The initial required septic system inspections were completed by the Thunder Bay District Health Unit as of November 2016 and were reinspected as required (i.e., within 5 years) in 2019, 2020 and 2021.

Future policy actions required by the Thunder Bay District Health Unit include: re-inspect all septic systems within WHPA-A every five years, with the next re-inspection cycle starting in 2024, and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the City of Thunder Bay over the reporting period included placing three buoys marking the anchorage boundary in proximity to the intake during the ice free period.

Future policy actions recommended to be completed by the City of Thunder Bay include: annually place three buoys marking the anchorage boundary in proximity of the intake; provide the SPA copies of any updates to the Spill Prevention and Contingency Plan and a summary of any actions taken to protect the Bare Point Intakes, as well as providing updates to the Standard Operating Procedure related to monitoring and reporting of blue-green algae blooms.

For the reporting period of January 1, 2022 to December 31, 2022, all policies as outlined in the Lakehead Source Protection Plan have been implemented by the respective implementing bodies or are in the process of being implemented as required.

No actions were taken over the reporting period to address deficiencies noted in the Assessment Report.

The next annual report is due from the Lakehead SPA to the Director of the MECP on May 1, 2024 for the period of January 1, 2023 to December 31, 2023.

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M-1 – Lakehead Source Protection Area



## 1 Introduction

Source Protection Authorities (SPAs) are required under the *Clean Water Act, 2006* to provide Source Protection Plan annual progress reports to the Director of the Ministry of the Environment, Conservation and Parks (MECP), Source Protection Committee (SPC) and the public. The Minister of the MECP is required to include a summary of the progress reports in the annual report prepared by the Minister under the *Safe Drinking Water Act, 2002*.

This report is the eighth annual progress report prepared by the Lakehead SPA for the period of January 1, 2022 to December 31, 2022.

In addition to this Annual Report, the SPA has completed and provided to the MECP “Source Protection Annual Progress Report”, “Annual Progress Reporting Supplemental Form for Source Protection” and the “Policy Implementation Status” (templates provided by the MECP) that provide a summary of reportable data which the Ministry can utilize in the completion of the Minister’s annual report.

### 1.1 Legislation

Annual reporting requirements are outlined in the *Clean Water Act, 2006* Section 46 and Ontario Regulation 287/07, Section 52 under the *Clean Water Act, 2006*.

#### 1.1.1 Clean Water Act, Section 46

Section 46 under the *Clean Water Act, 2006* specifies the requirement of the completion of annual reports. The SPA must annually prepare and submit to the Director and the SPC in accordance with the Regulations a report that:

- 1) describes the measures that have been taken to implement the Source Protection Plan, including measures taken to ensure that activities cease to be significant drinking water threats and measures taken to ensure that activities do not become significant drinking water threats;
- 2) describes the results of any monitoring program conducted pursuant to section 45;
- 3) describes the extent to which the objectives set out in the Source Protection Plan are being achieved; and
- 4) contains such other information as is prescribed by the regulations.

The SPA must provide the report to the SPC at least 30 days prior to submitting to the Director. The SPC shall review the report and provide written comments to the SPA about

the extent to which, in the opinion of the Committee, the objectives set out in the Source Protection Plan are being achieved by the measures described in the report. If the SPA receives SPC comments before submitting the report to the Director, copies of the comments shall be included in the report. The report is to be made available to the public as soon as reasonably possible after it is submitted to the Director. The Minister shall include a summary of the reports submitted by SPAs under Section 46 in the annual report prepared by the Minister under the *Safe Drinking Water Act*.

### **1.1.2 Ontario Regulation 287/07, Section 52**

Section 52 of Ontario Regulation 287/07 under the *Clean Water Act* outlines the requirements related to annual progress reports. The first report due shall apply to the period beginning the day the Plan takes effect and ending December 31, of the second calendar year following the year in which the Plan takes effect (i.e. October 1, 2013 to December 31, 2015 in the case of the Lakehead Source Protection Plan). Subsequent reports shall be for the full calendar year. Reports are due May 1 of the year following the year to which the report applies.

The report must include:

- 1) If the Source Protection Plan sets out a policy that specifies a date by which a particular action shall be taken by a person or body, and the person or body fails to take that action by that date, a description of the failure and the reasons for the failure.
- 2) A description of any steps taken during the reporting period to address any deficiencies in the information that was used in developing the Assessment Report set out in the Source Protection Plan.
- 3) A summary of the report prepared and submitted by the risk management official under section 81 of the Act for the same calendar year to which the report under section 26 of the Act applies (not applicable to the Lakehead Source Protection Plan, as there are no required Risk Management Officials).
- 4) Any other information that the SPA considers advisable.

## 2 Background

The Ontario government enacted the *Clean Water Act, 2006* in order to protect sources of water supplying municipal drinking water systems and ultimately human health and environment. This was in response to the Walkerton tragedy, in which the municipal drinking water system became contaminated resulting in the death of seven residents and thousands falling ill.

Ontario's Conservation Authorities were provided funding from the MECP to acquire the resources necessary to implement the proposed "protection of water at its source". The Minister of the MECP appointed Chairs for SPCs. Subsequently, representatives from the watershed community were appointed to the SPCs.

The first step of the Source Protection Planning process required each SPC to prepare a Terms of Reference. These documents outlined all necessary steps that document and implement the Source Protection Plan. Upon completion of the Terms of Reference, the Assessment Report, Watershed Characterization Report, and Water Budget and Water Quantity Stress Assessment were completed. The technical studies were utilized to determine vulnerable areas where contamination or shortages of water could be an issue for Municipal Drinking Water Sources. Technical studies were also used to establish a list of threats that were located within the vulnerable areas. The completed studies were then used to develop the Source Protection Plan. The Source Protection Plan contains a series of policies developed by the SPC in consultation with the local community to protect municipal drinking water sources from existing and future drinking water threats. The Plan describes the actions that must be taken by various agencies to protect surface water and groundwater sources that supply municipal drinking water.

Copies of all completed technical studies, the Lakehead Source Protection Plan, and previous Annual Progress Reports are available on-line at [www.lakeheadca.com](http://www.lakeheadca.com).

### 2.1 Lakehead Source Protection Area

The Lakehead Source Protection Plan applies within the Lakehead Source Protection Area, which is 11,526 square kilometres and covers the area of land where the flow of water contained within the secondary watershed would eventually pass through the Lakehead Region Conservation Authority (LRCA) area of jurisdiction and reach Lake Superior. The LRCA area of jurisdiction, which differs from the Lakehead Source Protection Area, covers 2,700 square kilometres and is defined by the municipal boundaries of its eight Member Municipalities including: City of Thunder Bay, Municipalities of Oliver Paipoonge, Shuniah and Neebing and the Townships of O'Connor, Conmee, Dorion and Gillies. See Map M-1, Lakehead Source Protection Area.

## **2.2 Lakehead Source Protection Plan**

The Lakehead Source Protection Plan is the culmination of the Lakehead SPC's efforts to draft policies to ensure that significant threats to Municipal Drinking Water Sources in the Lakehead Source Protection Area cease to be or never become significant drinking water threats.

Within the Lakehead Source Protection Area, there are only two sources of Municipal drinking water: Bare Point Water Treatment facility, providing drinking water to the City of Thunder Bay, and the Rosslyn Village Drinking Water Facility, which provides drinking water to 31 homes within Rosslyn Village.

The Source Protection Plan contains a series of policies developed by the SPC in consultation with the local community to protect municipal drinking water sources from existing and future drinking water threats. The Plan describes the actions that must be taken by various agencies to protect surface water and groundwater sources that supply municipal drinking water

It is noted that the Lakehead Source Protection Plan did not include any policies that required Risk Management Officials or the development of Risk Management Plans.

There are two implementing bodies that are required to implement the Plan's legally binding policies, they include the Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit and are related to the Wellhead Protection Zones associated with the Rosslyn Village water supply. No significant or moderate threats were found to occur within the Intake Protection Zones of the City of Thunder Bay's Bare Point Water Treatment Plant; therefore, only two non-legally binding policies, which do not require mandatory actions, are applicable to the City of Thunder Bay.

### **2.2.1 Approval of the Source Protection Plan**

The Lakehead Source Protection Plan was approved by the Minister of MECP on January 16, 2013, with an effective date of October 1, 2013.

### **2.2.2 Updates to the Source Protection Plan**

A Section 36 Order was issued to the Lakehead SPA from the Minister of the MECP on October 13, 2015. The Order specified that the SPA shall prepare and submit a workplan to the MECP by November 30, 2017. The Order required that the workplan include detailed steps for the review of the Source Protection Plan and be developed in consultation with the Lakehead SPC, participating municipalities of the Source Protection

Area, and the MECP. The Order also required that the Lakehead SPA take information from the first two annual progress reports into account in preparation of the workplan.

The Lakehead SPA proposed the following changes to the Lakehead Assessment Report and SPP, as outlined in the table below.

<b>Proposed Update No.</b>	<b>Description of Proposed Update</b>	<b>Implementing Body/Municipality</b>	<b>Applicable Document</b>
1	IPZ-2 update with new floodplain mapping for North Star Creek.	City of Thunder Bay	Assessment Report and SPP
2	Update of Policy RV.1.CW-PA in SPP to remove references to the size of prohibited Waste Disposal Sites.	Municipality of Oliver Paipoonge	SPP
3	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute Education and Outreach materials in the future. Remove EO materials related to agriculture.	Municipality of Oliver Paipoonge and TBDHU	SPP
4	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Municipality of Oliver Paipoonge	SPP
5	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Municipality of Oliver Paipoonge	SPP
6	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	City of Thunder Bay	SPP

The Section 36 Workplan was submitted to the MECP on November 30, 2017. The Minister responded on May 8, 2018 and noted that a comprehensive review and update of the Lakehead SPP and Assessment Report was not required at that time. Further consultation with the Ministry confirmed that the Lakehead SPA could complete the proposed changes either under Section 34 or wait until the next review and submission of the Section 36 Workplan in five years (i.e., May 2023).

It was decided to not proceed with a Section 34 amendment and assess again during the next Section 36 Workplan process.

## **2.3 Source Protection Authority (SPA)**

The SPA for the Lakehead Source Protection Area follows the same structure as the LRCA Board of Directors. The LRCA Board is made up of members appointed by their respective municipal councils, which are either elected officials or appointed members of the public. For the reporting period, the SPA composition was the same as the LRCA Board of Directors.

### **2.3.1 Source Protection Authority Membership**

SPA membership throughout the term of the reporting period included:

1. Donna Blunt, Municipality of Shuniah, Chair
2. Grant Arnold, Township of Conmee, Vice-Chair
3. Joel Brown, Township of Dorion
4. Rudy Buitenhuis, Township of Gillies
5. Erwin Butikofer, Municipality of Neebing
6. Jim Vezina, Township of O'Connor
7. Allan Vis, Municipality of Oliver Paipoonge
8. Andrew Foulds, City of Thunder Bay
9. Umed Panu, City of Thunder Bay
10. Andrea Goold, City of Thunder Bay
11. Trevor Giertuga, City of Thunder Bay

## **2.4 Source Protection Committee (SPC)**

The SPC, as stated in the *Clean Water Act*, was responsible for preparing the Terms of Reference, the Assessment Report and the Source Protection Plan, while being supported by SPA. Through an application process, the Lakehead SPC was initially appointed by the SPA in the fall of 2007.

As outlined in O. Reg. 288/07 under the *Clean Water Act*, the SPA passed a resolution in April 2016 to reduce the Lakehead SPC from nine members to six. Following an application process, the new members of the reduced SPC were appointed by the SPA on November 30, 2016.

### **2.4.1 Source Protection Committee Chair**

The Minister of the MECP appoints the Chair of the SPC. The Chair of the Lakehead SPC over the term of the reporting period was Ms. Lucy Kloosterhuis, who was appointed by the Minister of the MECP, from September 24, 2019 to August 19, 2022, and reappointed for the term of October 18, 2022 to August 20, 2025.

### **2.4.2 Source Protection Committee Membership**

The Lakehead SPC non-municipal members were appointed by the SPA on October 27, 2021, for a term of five years commencing on December 1, 2021.

On March 27, 2022, Erin Knight (public member) resigned from the Source Protection Committee. After completing the recruitment process, Mr. Mike Fabius was appointed as a Public Member, for a five-year term expiring November 20, 2026.

For the reporting period, membership of the SPC consisted of the following six members:

- Municipal
  - Walter Turek, City of Thunder Bay
  - Chris Bowles, Municipality of Oliver Paipoonge
- Industrial
  - Ashleigh Marchl, Resolute Forest Products (December 1, 2021 to November 30, 2026)
- Agricultural
  - Bernie Kamphof (December 1, 2021 to November 30, 2026)
- Other
  - Shanley Thompson, Environmental (December 1, 2021 to November 30, 2026)
  - Erin Knight, Public Member (December 1, 2021 to March 27, 2022)
  - Mike Fabius (May 30, 2022 to November 30, 2026).

The SPC has also been supported by non-voting Liaison members. Over the reporting period, the First Nations liaison position remained vacant.

- Liaison Members
  - Lee Sieswerda, Thunder Bay District Health Unit
  - Elizabeth Forrest, Ministry of Environment, Conservation and Parks
  - Tammy Cook, Chief Administrative Officer, Lakehead Region Conservation Authority

### 3 Lakehead Source Protection Plan Policies

The following are the policies that the implementing bodies (i.e. Municipality of Oliver Paipoonge and Thunder Bay District Health Unit) are required to implement.

No significant or moderate threats were found to occur within the Intake Protection Zones of the City of Thunder Bay's Bare Point Water Treatment Plant. For this reason, only two Specify Action policies were included in the Lakehead Source Protection Plan. These policies are non-legally binding; however, they were considered important to the SPC, and represents a good faith commitment on behalf of the City of Thunder Bay. The City must have regard for these policies and should consider them when making decisions pertaining to their applicability.

The full policies can be viewed in the full version of the Lakehead Source Protection Plan that is available on-line at [www.lakeheadca.com](http://www.lakeheadca.com).

#### 3.1 Municipality of Oliver Paipoonge

The Lakehead Source Protection Plan contains six policies that apply to the Municipality of Oliver Paipoonge. The policies were implemented to ensure activities that are or would be a significant threat to municipal drinking water sources cease to exist or never become significant.

Policies that apply to the Municipality of Oliver Paipoonge are summarized below:

1. Policy RV.1.CW-PA prohibits future significant threats by prohibiting certain land uses.

Policy number RV.1.CW-PA (on page 55 of the Plan) states:

The following land uses are prohibited in Wellhead Protection Area A (WHPA-A):

- 1) Land uses that normally require waste disposal sites approvals including:
  - Application of hauled sewage to land;
  - Mine tailings stored in a pit or in impoundment structures where the National Pollutant Release Inventory (NPRI) notice requires a person to report;
  - Landfarming of petroleum refining waste (more than ten hectares);
  - Landfilling of hazardous waste (less than one hectare);
  - Landfilling of municipal waste (less than one hectare);
  - Land disposal of commercial or industrial waste (less than one hectare);



- Land disposal of liquid industrial waste
  - Storage of PCBs; and
  - A waste disposal site that is not approved to accept hazardous waste or liquid industrial waste but accepts small volumes that are exempt from Ontario Regulation 347.
- 2) Sewage treatment facilities, not including septic systems under 10,000 litres per day.
  - 3) Non-residential uses where organic solvents occur including, but not limited to, dry cleaning operations, vehicle service centres, paint and hardware stores, retail or wholesale pharmaceutical storage and distribution centres.
  - 4) Uses where fuel is stored including but not limited to, non-residential fuel storage, retail fuel outlets, uses where backup generators are required (with the exception of the backup generator at the Rosslyn Village Water Treatment Plant), industrial operations and any other uses involving the bulk handling and storage of fuel.
  - 5) Uses which include the storage of dense non-aqueous phase liquid (DNAPLs) except for incidental volumes for personal domestic use.
  - 6) Future Agricultural uses.
  - 7) The Official Plan and Zoning By-law shall be brought into conformity with provisions 1 to 6 in accordance with Section 26 of the *Planning Act*.
2. Policy RV.2.M-PA is used to monitor the implementation of RV.1.CW-PA under the Source Protection Plan. Through the monitoring, the Lakehead SPA can monitor changes to the Official Plan and necessary Zoning By-laws. This will help to facilitate the monitoring process and advise the SPC of any issues related to the Land Use Planning Policy.

Policy RV.2.M-PA (located on page 57 of the Plan) states:

In relation to policy RV.1.CW-PA, the Municipality of Oliver Paipoonge shall provide an Annual Report to the Lakehead SPA by February 1 of each year on the steps it has taken in the previous calendar year to implement the policies that are set out in the Source Protection Plan and apply to its decisions under the *Planning Act* and the *Condominium Act*.

The SPA, in conjunction with the Municipality, shall evaluate the effectiveness of the significant threat policies in the Source Protection Plan that affect *Planning Act* and *Condominium Act* decisions.

3. Policy RV.3.CW.SP manages future significant threats of application handling and storage of road salt, and storage of snow and potential future land use changes.

Policy RV.3.CW.SP (located on page 58 of the Plan) states:

To address the handling and storage of road salt (existing and future) and storage of snow (existing and future) the Municipality of Oliver Paipoonge shall prepare a Salt Management Plan to address the sensitivity of the Rosslyn Village WHPA-A within one year of the Source Protection Plan taking effect. Specific actions that should be included in the plan to address the risk of road salt effects on source water include:

- a) Locating salt and snow storage areas outside of the WHPA-A
- b) Minimizing application of road salt within WHPA-A

Copies of any Official Plan and Zoning By-law amendment applications in WHPA-A shall also be provided by the Municipality of Oliver Paipoonge to the Lakehead SPA once they have been received for review and comment and shall provide copies of these amendments once they have been adopted. This procedure must be established within one (1) year of the Source Protection Plan taking effect.

4. Policy RV.4.M.SP is the monitoring policy that has been put in place in order to monitor the actions and measures of policy RV.3.CW.SP.

Policy RV.4.M.SP (located on page 60 of the Plan) states:

By February 1 of each year after the Source Protection Plan takes effect, the Municipality of Oliver Paipoonge shall provide an Annual Report to the Lakehead SPA with a description of the actions/measures they have taken to implement policy RV.3.CW-SP during the previous calendar year. The report shall also include a description of what steps are being taken to determine the extent to which the specified action has achieved its objectives and any information on the results of those steps.

The Municipality of Oliver Paipoonge shall provide the Lakehead SPA with a copy of the Salt Management Plan once it is adopted.

5. Policy RV.5.CW-EO is designed to educate the residents of WHPA-A on existing and possible future threats on their property related to plane de-icer, agricultural threats and DNAPLs.

Policy RV.5.CW-EO (located on page 62 of the Plan) states:

The Municipality of Oliver Paipoonge shall develop an education program regarding the potential harmful effects of plane de-icer within the WHPA-A. This material will be required in the event of an airport being proposed.

To address all agricultural related drinking water threats (existing and future – Agricultural Source Material, Non-Agricultural Source Material, commercial fertilizer, pesticide and livestock grazing or pasturing of land, an outdoor confinement area or farm animal yard) the Municipality of Oliver Paipoonge shall develop an education and awareness program to advise the landowner in WHPA-A whose property currently contains existing agricultural threats. The Municipality shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats. This information shall be developed and distributed within 2 years of the Source Protection Plan taking effect.

The Municipality shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats related to the harmful effects of DNAPLs impacting groundwater resources.

6. Policy RV.6.M-EO has been put forth to monitor policy RV.5.CW-EO, allowing the Lakehead SPA to ensure the actions and measures being carried out by the Municipality of Oliver Paipoonge are in compliance with the Source Protection Plan.

Policy RV.6.CW-EO (located on page 62 of the Plan) states:

By February 1 of each year, the Municipality of Oliver Paipoonge shall provide an Annual Report to the Lakehead SPA with a description of the actions/measures they have taken to implement the education and outreach program in the Source Protection Plan in the previous calendar year. The report shall also include a description of what steps are being taken to determine the extent to which the program has achieved its objectives and any information on the results of those steps.

The Municipality of Oliver Paipoonge shall also provide a copy of any materials produced and the number of residents reached by the education and outreach materials.

The policies are applicable to the Municipality of Oliver Paipoonge and only apply to the WHPA-A designated area.

### **3.2 Thunder Bay District Health Unit**

Four policies apply to the Thunder Bay District Health Unit (TBDHU).

Policies that apply to the TBDHU are summarized below:

1. Policy number RV.3.CW-SP (on page 58 of the Plan) manages the existing significant threat of septic systems under 10,000 litres a day as well as new septic systems under 10,000 liters a day. The Policy states:

The Thunder Bay District Health Unit shall ensure that on-site sewage maintenance inspections are conducted on all existing and future septic systems within WHPA-A, under the authority of the Building Code. This process will begin within 5 years of the approval of the Assessment Report for the Lakehead Source Protection Area (June 21, 2011).

All septic system inspections within the Rosslyn Village Wellhead Protection Area-A (WHPA-A) must be completed by the Thunder Bay District Health Unit on or before June 20, 2016, and every five years thereafter.

2. Policy RV.4.M.SP (on page 60 on the Plan) is the monitoring policy that has been put in place in order to monitor the actions and measures of policy RV.3.CW.SP.

The Policy states:

By February 1 of each year after the Source Protection Plan takes effect, the Thunder Bay District Health Unit shall provide an Annual Report to the Lakehead SPA with a description of the actions/measures they have taken to implement policy RV.3.CW-SP during the previous calendar year. The report shall also include a description of what steps are being taken to determine the extent to which the specified action has achieved its objectives and any information on the results of those steps.

The Thunder Bay District Health Unit shall also provide the Lakehead SPA with the following information:

- a) Results of mandatory sewage system maintenance inspections.
  - b) A summary compliance report outlining any corrective action found to be necessary as a result of the Sewage Systems Maintenance Program.
3. Policy number RV.5.CW-EO (on page 62 on the Plan) is designed to educate the residents of WHPA-A on existing and possible future threats on their property.

The Policy states:

To address septic systems under 10,000 litres a day (existing and future) the Thunder Bay District Health Unit shall provide within two years of the Source Protection Plan taking effect, information to landowners whose properties are serviced by an on-site sewage system within WHPA- A. The information shall be made available for a minimum of two years and will include:

- a) The reasons for the required inspection program.
  - b) Maintenance of systems.
  - c) Various types of allowed systems.
  - d) Best management practices for using a system.
4. Policy number RV.6.M-EO (on page 64 on the Plan) states:

By February 1 of each year, the Thunder Bay District Health Unit shall provide an Annual Report to the Lakehead SPA with a description of the actions/measures they have taken to implement the education and outreach program (Policy RV.5.CW-EO) in the Source Protection Plan in the previous calendar year. The report shall also include a description of what steps are being taken to determine the extent of which the program has achieved its objectives and any information on the results of those steps.

Enclosed with the Thunder Bay District Health Unit Annual Report shall be copies of any materials produced and the number of landowners/operators/persons engaged in significant drinking water threats reached by the program.

### **3.4 City of Thunder Bay**

The Specify Action policies within the Lakehead Source Protection Plan are non-legally binding; however, were considered important to the Lakehead SPC during the Plan development. They are recommended “best management practices” for the City of Thunder Bay.

Policy TB.1.NLB-SP was implemented to protect the intake pipe from the potential impacts of ship anchorage. The policy states:

The City of Thunder Bay should update a Spill Prevention and Contingency Plan that may include, at a minimum placing a buoy at the anchorage boundary that is within proximity to the Intake. It was further recommended by the Lakehead SPA that the City of Thunder Bay should consider the following: instead of placing one buoy on the anchorage line, it was suggested that buoys were placed at the intersections of the anchorage line and Intake Protection Zone 2 (IPZ 2), if depth permits. The City took the recommendation into consideration and places three buoys to prevent anchorage over the intake.

Policy TB.2.M-SP was created to monitor the implementation of Policy TB.1.NLB-SP by stating that the City of Thunder Bay shall provide the Lakehead SPA with a copy of any updates to the Spill Prevention and Contingency Plan that is created, any actions that are taken under this Plan to protect the Bare Point Intakes, including blue-green algae monitoring.

## 4 Source Protection Plan Implementation Status

The following table summarizes the implementation status of the policies with action items included in the Source Protection Plan, along with the dates of all tasks completed during the reporting period of January 1, 2021 to December 31, 2021.

Table 1: Lakehead Source Protection Plan Policy Implementation Status					
Policy #	Implementing Body	Policy Description	Implementation Date	Completion	Status
RV.1.CW-PA	Municipality of Oliver Paipoonge	Update Official Plan and Zoning By-Law to reflect prohibitions and provide conformity with the Plan.	Official Plan updated and adopted May 2018. Official Plan references SPP Policies.  Zoning by-law updated December 2018.  Site Specific Zoning amendment 745-2013 passed, removing agriculture, stables, riding academies and dog kennels from list of permitted uses for portion of land parcel located in WHPA-A.		<b>Implemented</b>
RV.2.M-PA	Municipality of Oliver Paipoonge	Provide Annual Report to SPA every year by February 1 <sup>st</sup> of each year related to decisions under the <i>Planning Act</i> and <i>Condominium Act</i>	Reports received by SPA: January 24, 2014 January 29, 2015 January 28, 2016 January 30, 2017 January 30, 2018 January 8, 2019 January 28, 2020 January 5, 2021 January 27, 2022 January 27, 2023		<b>Implemented</b>  <b>On-going</b> Subsequent reports due in future reporting years.
RV.3.CW-SP 1)	Municipality of Oliver Paipoonge	Prepare Salt Management Plan by October 1, 2014	October 2, 2014  Adopted by Council October 15, 2014  No salt or snow stored in WHPA-A. No salt applied in WHPA-A.		<b>Implemented</b>  <b>On-going</b> Continue to not store snow and salt and minimize salt application in WHPA-A

**Table 1: Lakehead Source Protection Plan Policy Implementation Status**

<b>Policy #</b>	<b>Implementing Body</b>	<b>Policy Description</b>	<b>Implementation Date</b>	<b>Completion</b>	<b>Status</b>
RV.3.CW-SP 2)	Thunder Bay District Health Unit	Inspect all septic's located within WHPA-A by June 20, 2016 and every 5 years thereafter.  Next inspection round will be between 2024 – 2026.	25 of 25 inspected as of 2016.  7 septics reinspected in 2019. 6 septics reinspected in 2020. 12 septics reinspected in 2021.  No issues observed.		<b>Implemented</b>  <b>On-going</b> All septic systems will be inspected every 5 years from the date of initial inspection.
RV.3.CW-SP 3)	Municipality of Oliver Paipoonge	Provide copies of all Official Plan and Zoning by-law amendment applications in WHPA-A to SPA and establish procedure by October 1, 2014.	All Official Plan and Zoning by-law amendment applications are provided to the SPA		<b>Implemented</b>  <b>On-going</b> Future applications in WHPA-A to be provided to SPA.
RV.4.M-SP 1)	Municipality of Oliver Paipoonge	Provide Annual Report to SPA every year by February 1 <sup>st</sup> of each year related to Policy RV.3.CW-SP.  Provide a copy of the Salt Management Plan once it is adopted.	Reports received by SPA: January 24, 2014 January 29, 2015 January 28, 2016 January 30, 2017 January 30, 2018 January 8, 2019 January 28, 2020 January 5, 2021 January 27, 2022 January 27, 2023  Salt Management Plan received October 2, 2014		<b>Implemented</b>  <b>On-going</b> Subsequent reports due in future reporting years.



**Table 1: Lakehead Source Protection Plan Policy Implementation Status**

<b>Policy #</b>	<b>Implementing Body</b>	<b>Policy Description</b>	<b>Implementation Date</b>	<b>Completion</b>	<b>Status</b>
RV.4.M-SP 2)	Thunder Bay District Health Unit	Provide Annual Report to SPA every year by February 1 <sup>st</sup> of each year related to Policy RV.3.CW-SP.  Include results of mandatory septic system inspections and any corrective actions.	Reports received by SPA: January 30, 2014 January 23, 2015 January 19, 2016 January 16, 2017 January 30, 2018 January 3, 2019 January 10, 2020 January 5, 2021 January 4, 2022 January 16, 2023		<b>Implemented</b>  <b>On-going</b> Subsequent reports due in future reporting years.
RV.5.CW-EO 1)	Thunder Bay District Health Unit	By October 1, 2015, provide information to landowners in WHPA-A related to septic inspection program, maintenance, types of systems allowed and best management practices. Information must be available for a minimum of two years.	Distributed to WHPA-A residents on:  February 7, 2014 January 11-15, 2016 January 16-20, 2017		<b>Implemented</b>
RV.5.CW-EO 2)	Municipality of Oliver Paipoonge	Develop an education program regarding harmful effects of plane de-icer within WHPA-A.	Fact Sheet created		<b>Implemented</b>
RV.5.CW-EO 3)	Municipality of Oliver Paipoonge	Develop an education program regarding agricultural threats to advise the landowner in WHPA-A whose property contains existing agricultural threats. Package must be provided by October 1, 2015.	Package distributed prior to September 30, 2015		<b>Implemented</b>

**Table 1: Lakehead Source Protection Plan Policy Implementation Status**

<b>Policy #</b>	<b>Implementing Body</b>	<b>Policy Description</b>	<b>Implementation Date</b>	<b>Completion</b>	<b>Status</b>
RV.5.CW-EO 4)	Municipality of Oliver Paipoonge	Develop a package that includes information for best management practices and raise awareness related to the threats posed by DNAPLS.	Fact Sheet created and distributed prior to September 30, 2015.		<b>Implemented</b>
RV.6.M-EO 1)	Thunder Bay District Health Unit	Provide Annual Report to SPA every year by February 1 <sup>st</sup> of each year related to Policy RV.5.CW-EO.  Provide copies of any material produced and number of residents reached by program.	Reports received by SPA: January 30, 2014 January 23, 2015 January 19, 2016 January 16, 2017 January 30, 2018 January 3, 2019 January 10, 2020 January 5, 2021 January 4, 2022 January 16, 2023  Copies of material provided.		<b>Implemented</b>  <b>On-going</b> Subsequent reports due in future reporting years.
RV.6.M-EO 2)	Municipality of Oliver Paipoonge	Provide Annual Report to SPA every year by February 1 <sup>st</sup> of each year outlining what actions have been taken to implement the education and outreach program.  Provide a copy of materials produced and number of people reached by program.	Reports received by SPA: January 24, 2014 January 29, 2015 January 28, 2016 January 30, 2017 January 30, 2018 January 3, 2019 January 28, 2020 January 5, 2021 January 27, 2022 January 27, 2023		<b>Implemented</b>  <b>On-going</b> Subsequent reports due in future reporting years.

**Table 1: Lakehead Source Protection Plan Policy Implementation Status**

<b>Policy #</b>	<b>Implementing Body</b>	<b>Policy Description</b>	<b>Implementation Date</b>	<b>Completion</b>	<b>Status</b>
TB.1.NLB-SP	City of Thunder Bay	<p>Non-legally binding policy.</p> <p>Suggested to place buoys at the anchorage boundary that is within proximity to the intake. The City places three buoys to prevent anchorage.</p>	Three buoys placed by private contractor. Removed every year at ice up.		<p><b>Implemented</b></p> <p><b>On-going</b> Requires re-installation every spring.</p>
TB.2.M-SP	City of Thunder Bay	<p>Non-legally binding policy.</p> <p>Provide SPA a copy of any updates to the Spill Prevention and Contingency Plan that is created, and any actions that are taken under this Plan to protect the Bare Point Intakes.</p>	<p>Emergency Management Plan updates provided March 17, 2016.</p> <p>Update to Standard Operating Procedure related to blue-green algae monitoring and reporting received on March 16, 2021.</p>		<p><b>Implemented</b></p> <p><b>On-going</b> Copies of subsequent updates are to be provided to the SPA.</p>

## 5 Deficiencies in the Assessment Report

As required in Section 52 (1) part 2 of Ontario Regulation 287/07, the annual report is to include a summary of any steps taken during the reporting period to address any deficiencies in the information that was used in developing the Assessment Report set out in the Source Protection Plan.

General deficiencies noted in the Approved Assessment Report for the Lakehead Source Protection Area, dated May 2011 included:

- Intake Protection Zone 3 not delineated (noted as an action item for future Assessment Report updates)
- Lack of groundwater well data
- Lack of surface water intake data
- No data on groundwater/surface water interactions
- Lack of long-term weather data
- Lack of available depth, soil composition and water table depth data to delineate Highly Vulnerable Aquifers with any certainty
- Aquifer vulnerability was not assessed in a large part of the Lakehead Source Protection Area due to a lack of available data.

Over the reporting period, no steps were taken to address the deficiencies noted in the Approved Assessment Report. It is noted that the majority of deficiencies are related to a lack of overall base data, which is not likely to become available any time in the near future or may never become available. Additionally, it has been concluded that the acquisition of the data is not likely to result in revealing new threats or the development of new policies.

## **6 Annual Report Distribution**

### **6.1 Source Protection Committee**

The SPC was provided a copy of the 2022 Annual Reports covering the period of January 1, 2022 to December 31, 2022 within their March 16, 2023 SPC Meeting Agenda.

The Report was discussed at the SPC Meeting held on March 16, 2023 and it was the consensus of the SPC that the Source Protection Plan had met its objectives for 2022.

### **6.2 Source Protection Authority**

The SPA adopted the 2022 Annual Report on April 20, 2023 as per resolution # #/23.

### **6.3 Director of the Ministry of Environment, Conservation and Parks**

The Lakehead Source Protection Plan Annual Report was provided to the Director of the MECP on April ##, 2023.

### **6.4 Public**

The Lakehead Source Protection Plan Annual Report will be accessible by the public on the Lakehead Source Protection website [www.lakeheadca.com](http://www.lakeheadca.com).

## 7 Conclusion

For the reporting period of January 1, 2022 to December 31, 2022, all policies as outlined in the Lakehead Source Protection Plan have been implemented by the respective implementing bodies.

Actions completed by the Municipality of Oliver Paipoonge over the reporting period included: Completion of the annual report to the SPA. There were no Official Plan and Zoning By-law amendment applications within WHPA-A in 2022.

Future policy actions required by the Municipality of Oliver Paipoonge include: continuing to circulate all Official Plan and Zoning by-law *Planning Act* applications within WHPA-A to the SPA; continuing to prohibit prohibited land uses in WHPA-A; continue to locate salt and snow storage outside of WHPA-A; continue to minimize salt application in WHPA-A; continue to have the facts sheets related to DNAPLs and plane de-ice available for distribution; and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the Thunder Bay District Health Unit over the reporting period included completion of the annual report to the SPA. The initial required septic system inspections were completed by the Thunder Bay District Health Unit as of June 2016 and were reinspected as required (i.e., within 5 years) in 2019, 2020 and 2021.

Future policy actions required by the Thunder Bay District Health Unit include: re-inspect all septic systems within WHPA-A every five years, with the next re-inspection cycle starting in 2024, and prepare and submit annual reports to the SPA by February 1<sup>st</sup> of every reporting year.

Actions completed by the City of Thunder Bay over the reporting period included placing three buoys marking the anchorage boundary in proximity to the intake during the ice free period.

Future policy actions recommended to be completed by the City of Thunder Bay include: annually place three buoys marking the anchorage boundary in proximity of the intake; provide the SPA copies of any updates to the Spill Prevention and Contingency Plan and a summary of any actions taken to protect the Bare Point Intakes, as well as providing updates to the Standard Operating Procedure related to monitoring and reporting of blue-green algae blooms.

No actions were taken over the reporting period to address deficiencies noted in the Assessment Report, as the acquisition of the data is not considered to result in any new identified threat or required policies.

The next annual report is due from the Lakehead SPA to the Director of the MECP on May 1, 2024 for the period of January 1, 2023 to December 31, 2023.



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	
10	True	As applicable to your source protection region/area, indicate if all relevant implementing bodies submitted a status update/annual report to the source protection authority for the previous reporting year. If "No" is selected for any implementing body(ies), then please complete the Comments field below with details including the name of the specific implementing body along with an explanation, if available, for not submitting a status update/annual report as required by a monitoring policy. *NOTE: Where a listed implementing body(ies) is not applicable/relevant to your source protection region/area, then simply select "No" and explain that it is not an applicable implementing body in your source protection region/area in the Comments field text box.	
<b>Response</b>			<b>Answer</b>
Risk Management Official			No
Municipality			Yes
Conservation Authority			No
Local Health Unit			Yes
MECP - Waste Disposal Sites - Landfilling and Storage			No
MECP - Wastewater/Sewage Works			No
MECP - Pesticides			No
MECP - Hauled Sewage/Biosolids			No
MECP - Hauled Sewage/Biosolids Inspections			No
MECP - Permit to Take Water			No
MECP - Permit to Take Water Inspections			No
MECP - Municipal Residential Drinking Water Systems			No
MECP - Municipal Residential Drinking Water Systems Inspections			No
MECP - Source Protection			No
MECP - Waste Disposal Sites - Landfilling and Storage Inspections			No
MECP - Wastewater/Sewage Works Inspections			No
MECP - Conditions Sites			No
MECP - NMA - ASM and NASM Inspections			No
MECP - Environmental Monitoring			No
MECP - Fuel			No
MECP - Great Lakes			No





# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

MECP - Spills Response	No
MECP - Wells	No
OMAFRA	No
MNRF	No
MTO	No
MMAH	No
MGCS-TSSA	No
MENDM	No
Provincial Board/Commission	No
Federal Departments/Agencies/Commissions/Crown Corporations	No
Private Entity/Company	No
Association/Organization	No

**Comment:** Implementing bodies: Municipality of Oliver Paipoonge; Thunder Bay District Health Unit



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

Report Id	Completed	Question	Category
20	True	Did the Source Protection Authority (i) indicate the status of all threat policies as contained in their source protection plan by using one of the two options outlined in the guidance document (ID 20a) AND (ii) either provide details in the response field text box in section 2 for policies with a "No Progress Made" and "No information available/no response received" implementation status OR complete the table as part of reportable ID 20b in the Excel Workbook for those policies with a "No Progress Made" and "No information available/no response received" implementation status (only if also submitting the Excel Workbook), especially for legally-binding policies that address significant drinking water threat activities and for any moderate/low threat policies that use prescribed instruments and Planning Act tools. Please refer to the instructions provided for EAR Reportable ID 20 in the Guidance document which can be found in the FAQ section of the EAR online tool.	Implementation status of source protection plan policies

**Answer:** Yes

**Comment:**

Report Id	Completed	Question
220	True	List the municipality(ies) (including upper-, lower-, and single-tier) within the source protection region/area that are required to complete Official Plan and Zoning exercises to conform to the latest source protection plan, and indicate the status of those exercises for each applicable municipality. "Latest source protection plan" means the first approved plan or any subsequent approved plan update. *NOTE: Applies to every municipality affected by land use planning or Part IV type policies. Where the official plan and/or zoning by-law status for any particular municipality needs to be changed/updated, then please do so by deleting the entry for that particular municipality by clicking on the red "-" (minus) sign and then re-select the municipality name from the drop down list of municipalities followed by selecting the updated status of the conformity exercise for the official plan and zoning by-law from the drop down list for that particular municipality. After doing so, please be sure to add the municipality as your response by clicking on the green plus sign.

Municipality	Official Plan	Zoning By Law
City of Thunder Bay	Completed	Completed
Municipality of Oliver Paipoonge	Completed	Completed

**Comment:**



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	Current Year	Cumulative Count
240	True	State the number of source water protection signs installed on provincial highways in the source protection region/area in this reporting period.	0	0
<b>Provincial Total</b>			0	0
<b>Comment:</b>				

Report Id	Completed	Question	Current Year	Cumulative Count
241	True	State the number of source water protection signs installed on municipal roads in the source protection region/area in this reporting period.	0	0
<b>Provincial Total</b>			0	0
<b>Comment:</b>				

Report Id	Completed	Question	Current Year	Cumulative Count
242	True	State the number of source water protection signs installed at other locations (if applicable) in the source protection region/area in this reporting period.	0	0
<b>Provincial Total</b>			0	0
<b>Comment:</b>				



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	Category
260	True	Current total overall number of on-site sewage systems that are assessed as significant drinking water threat activities and that are required to be inspected every five years in accordance with the Ontario Building Code.	Sewage System Inspections
<b>Answer:</b>		25	
<b>Comment:</b>			

Report Id	Completed	Question	Category
261	True	Of those requiring inspections, how many inspections of on-site sewage systems were due to be carried out in this reporting period? If not applicable or no inspections of on-site sewage systems were due to be carried out in this reporting period because they were already inspected earlier within the inspection cycle or will be inspected in a future year within the cycle, then please enter "0" and state either explanation in the comment field.	Sewage System Inspections
<b>Answer:</b>		0	
<b>Comment:</b>			

Report Id	Completed	Question	Category
262	True	How many on-site sewage system inspections were completed in this reporting period?	Sewage System Inspections
<b>Answer:</b>		0	
<b>Comment:</b>			



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	Current Year	Cumulative Count
263	True	How many of the inspected on-site sewage systems required minor maintenance work in this reporting period?	0	0
<b>Provincial Total</b>			0	0
<b>Comment:</b>				

Report Id	Completed	Question	Current Year	Cumulative Count
264	True	How many of the inspected on-site sewage systems required major maintenance work (e.g., tank replacement, etc.) in this reporting period?	0	0
<b>Provincial Total</b>			0	0
<b>Comment:</b>				

Report Id	Completed	Question	Category
265	True	How many of the inspected on-site sewage systems required no maintenance work?	Sewage System Inspections
<b>Answer:</b>	0		
<b>Comment:</b>			



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	
266	True	For those on-site sewage systems that were not inspected in this reporting period but should have been inspected, and are now out of compliance, please indicate why they were not all inspected from among the reasons below. [Note: For municipalities that have not yet initiated the mandatory on-site sewage system inspection program, please see the next reportable to provide your response if this is the case].	
		<b>Response</b>	<b>Answer</b>
		landowner refused entry, compliance order being sought	No
		inspections delayed/postponed due to COVID-19 restrictions	No
		vulnerable area changed and on-site sewage system(s) no longer a threat activity	No
		other. Please specify in the comment box below.	Yes
<b>Comment:</b> 0 sewage systems were required to be inspected this reporting period.			



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

Report Id	Completed	Question	Category
267	True	If applicable, please indicate if any municipality(ies) has not yet established or initiated the mandatory on-site sewage system inspection program (i.e., the first inspection cycle) in your source protection region/area. As part of your response, please indicate the name of the municipality(ies), the reason(s) for not yet initiating the mandatory on-site sewage inspection program (if known) and the steps that have been taken to ensure compliance with the mandatory inspection program.	Sewage System Inspections

Answer: N/A

Comment:

Report Id	Completed	Question
270	True	Complete the information below regarding environmental monitoring of drinking water issues identified in accordance with the Technical Rules within your source protection region/area. Begin by selecting the drinking water system, the specific well or intake, the drinking water issue, the delineation status, and the observation of the concentration. [OPTIONAL]: In the comments field, describe any actions or behavioural changes that might be contributing to reported changes in the concentration of the issue or parameter. Where the drinking water issue, well or intake, delineation status, or observation of any previously listed drinking water system needs to be changed/updated, then please do so by deleting the entry for that particular drinking water system by clicking on the red minus sign on the right side of the entry and then re-select the drinking water system from the dropdown list of drinking water systems followed by selecting the associated well or intake, the drinking water issue, its delineation status, and the observation from the dropdown list for that particular drinking water system. After doing so, please be sure to add the drinking water system as your response by clicking on the green plus sign on the right side of the entry. If this reportable is not applicable to your source protection region/area, please indicate as such by choosing "No system with issues," "Not Known/Available," "No issue," "Not applicable," and "No observation," respectively, under the drop down menu options under each of the categories of this reportable. Do not leave blank.

DWIS Number	DWIS Name	Issue	ICA Delinated	Observation
260001081	Rosslyn Village Subdivision Well Supply	-- No Issue --	--Not Applicable --	-- No Observation --

Comment:



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

**Report Id    Completed    Question**

280      True      How many notices about transport pathways (meaning a condition of land resulting from human activity (e.g., pits and quarries, improperly abandoned wells, geothermal system, etc.) that increases the vulnerability of a raw water supply of a drinking water system) did the source protection authority receive from municipalities in this reporting period (as per O. Reg. 287/07, ss. 27(3))?

**Current Year    Cumulative Count**

0                      0

**Provincial Total**

0                      0

**Comment:**





# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	Response	Answer
281	True	Where transport pathway notices were received, indicate the action(s) taken by the source protection region/area in response to receiving these notices:		
			Provided information to municipalities about changes in vulnerability	No
			Provided notice to Source Protection Committee for information	No
			Situation continues to be monitored	No
<b>Comment:</b> N/A				



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	
300	True	[OPTIONAL]: If and where there are successful examples for each of the following initiatives in the source protection region/area (including from local municipalities, residents and businesses) that occurred in this reporting period that the authority wishes to highlight, then please indicate in the Comments field below. In your comments, please include details for each of the selected topics. Please limit the descriptions provided (e.g., one example for each topic or more could be included when the source protection authority feels they are exceptional/quite successful).	
<b>Response</b>			<b>Answer</b>
Education and Outreach (in description include details, if available, on type and percentage of target population reached, outcome(s) achieved, etc.)			No
Incentives (in description include details, if available, on outcome(s) achieved, how widely available was the incentive, etc.)			No
Stewardship Programs			No
Best Management Practices			No
Pilot Programs			No
Research			No
Specify Action (e.g., road salt management, municipal by-laws, legislative or regulatory amendments, mapping, review of fuel codes, new airport facility design standards to manage runoff of chemicals from de-icing of aircraft, instrumentation, etc.)			No
Climate Change (e.g., data collection)			No
Spill prevention/spill contingency/emergency response plan updates			No
Transport pathways			No
Water quantity			No
Great Lakes			No
Other policies (i.e., strategic action, etc.)			No
<b>Comment:</b>			



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

**Report Id    Completed    Question**

305      True      Complete the table below with the count data for each significant drinking water threat activity/local threat activity/condition being engaged in (i.e., enumerated as 'existing' significant threats) at the time of source protection plan approval or approval of amendments that include new / changing protection zones. Please use the best available information/desktop exercises, reports from Risk Management Officials, and other implementing bodies to provide the counts below. For convenience, the count data from the previous reporting year have been copied over, but please be sure to review, edit, and confirm the counts for accuracy in the table below. \*NOTE: SPAs are strongly encouraged to refer to the Guidance document for additional details and instructions on completing this table.

ThreatId	Threat	A	B	C	D
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	0	0	0	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	25	0	0	25
3	The application of agricultural source material to land.	1	0	1	0
4	The storage of agricultural source material.	4	0	4	0
5	The management of agricultural source material.	0	0	0	0
6	The application of non-agricultural source material to land.	0	0	0	0
7	The handling and storage of non-agricultural source material.	0	0	0	0
8	The application of commercial fertilizer to land.	0	0	0	0
9	The handling and storage of commercial fertilizer.	0	0	0	0
10	The application of pesticide to land.	0	0	0	0
11	The handling and storage of pesticide.	0	0	0	0
12	The application of road salt.	0	0	0	0



# Source Water Protection Annual Report

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### SPR - Lakehead

13	The handling and storage of road salt.	0	0	0	0
14	The storage of snow.	0	0	0	0
15	The handling and storage of fuel.	0	0	0	0
16	The handling and storage of a dense non-aqueous phase liquid.	0	0	0	0
17	The handling and storage of an organic solvent.	0	0	0	0
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	0	0	0	0
19	Water taking from an aquifer without returning the water to the same aquifer or surface water body	0	0	0	0
20	Reducing recharge of an aquifer	0	0	0	0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	2	0	2	0
22	The establishment and operation of a liquid hydrocarbon pipeline	0	0	0	0
1000	Water conditioning salts from water softeners	0	0	0	0
1001	Transportation of specified substances along corridors	0	0	0	0
1002	Spill of Tritium from Nuclear Generating Station	0	0	0	0
1003	Handling storage of fuel	0	0	0	0
1004	Transportation, storage and handling of diesel/gasoline	0	0	0	0
1005	Transportation of Agricultural and Non-Agricultural Source Materials	0	0	0	0
1006	International Shipping Channel within IPZ2	0	0	0	0
1007	Transportation of hazardous substances along transportation corridors	0	0	0	0
1008	Transportation or Storage and Handling of Fuel in an Event Based Area	0	0	0	0



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

1009	Waterfowl				0	0	0	0
1010	Local condition				0	0	0	0
	<b>25</b>	<b>25</b>			<b>Totals:</b>	<b>32</b>	<b>0</b>	<b>7</b>
								<b>25</b>

**Comment:**

**MECP Calc D/(A+B-C): 100 %**

Report Id	Completed	Question	Category
310	True	Please provide comments below to explain the overall progress made in addressing existing significant threat activities and include the percentage of overall progress made within the comments provided. The percentage of overall progress made in addressing local threats and conditions that are taking place on the landscape is determined by taking the total number in column D (i.e., significant drinking water threat addressed because policy is implemented) from the table above (reportable 305) adding it to C (i.e., significant threats determined through field verification to no longer be threats) and dividing it by the number that is derived by adding the total numbers in columns A and B. In other words, overall progress made = (C+D)/(A + B).	Addressing existing enumerated threats

**Answer:** All policies as outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies. The Municipality of Oliver Paipouge has an approved 2018 Official Plan, which references the SPP Policies.

The remaining significant drinking water threats are associated with residential sewage systems. The percentage of the overall progress made in addressing these remaining existing significant drinking water threats is 100%.

**Comment:**

Report Id	Completed	Question	Category
320	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 30.1: Water Budget Tier 3 not included in your original assessment report(s).	Assessment report information gaps

**Answer:** N/A

**Comment:**



# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	Category
321	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 50.1: GUDI for WHPA-E or F not included in your original assessment report(s).	Assessment report information gaps
<b>Answer:</b>		N/A	
<b>Comment:</b>			

Report Id	Completed	Question	Category
322	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 116: Issue Contributing Area not included in your original assessment report(s).	Assessment report information gaps
<b>Answer:</b>		Not applicable.	
<b>Comment:</b>			

Report Id	Completed	Question	Category
323	True	If applicable where the 2021 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 30.1: Water Budget Tier 3 not included in your original assessment report(s).	Assessment report information gaps
<b>Answer:</b>		N/A	
<b>Comment:</b>			



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

Report Id	Completed	Question	Category
324	True	[OPTIONAL] Where the 2021 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 50.1: GUDI for WHPA-E or F not included in your original assessment report(s).	Assessment report information gaps

**Answer:** N/A

**Comment:**

Report Id	Completed	Question	Category
330	True	Does the source protection authority have any other item(s) on which it wishes to report? If so, please explain.	Other reporting items

**Answer:** Not applicable.

**Comment:**



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

Report Id	Completed	Question	Category
340	True	What positive outcomes (e.g., less water consumption, changes in behaviour, reduction in phosphorus and nitrogen concentrations, less chloride from road salt, reduction in algal blooms, human health protected, etc.), if any, have potentially resulted from the implementation of source protection plan policies? Please describe the outcomes below.	Source protection outcomes
<b>Answer:</b>		<p>In our source protection area, no issues have been identified in our local science-based assessment report(s) regarding the quality of the source(s) of municipal drinking water.</p> <p>It is noted that the Chief Drinking Water Inspector Annual Report 2021/2022 reported that 99.9% of all municipal residential drinking water test results for systems regulated by MECP met Ontario's drinking water quality standards. Municipality of Oliver Paipoonge, Rosslyn Village Subdivision Drinking Water System achieved an 80.07% inspection rating and 100% of their microbiological test results and chemical and radiological test results met Ontario's Drinking Water Quality Standards. The City of Thunder Bay Bare Point Water System achieved 96.05% inspection rating and 99.91% of their microbiological test results and 99.34% of their chemical and their radiological test results met Ontario's Drinking Water Quality Standards. Based on the results it has been concluded that the Source Protection Plan is meeting its objective of protecting water at its source. The Chief Drinking Water Inspector Annual Report can be found here: <a href="https://www.ontario.ca/page/2021-2022-chief-drinking-water-inspector-annual-report">https://www.ontario.ca/page/2021-2022-chief-drinking-water-inspector-annual-report</a></p>	
<b>Comment:</b>			





# Source Water Protection Annual Report

## 2022 - Supplemental Form

### SPR - Lakehead

Report Id	Completed	Question	
350	True	In the opinion of the Source Protection Committee, to what extent have the objectives of the source protection plan been achieved in this reporting period?	
		<b>Response</b>	<b>Answer</b>
		Progressing Well - The majority of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	Yes
		Satisfactory - Some of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	No
		Limited Progress made - A few of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	No
<b>Comment:</b>			



# Source Water Protection Annual Report 2022 - Supplemental Form SPR - Lakehead

Report Id	Completed	Question	Category
351	True	Please provide comments to explain how the Source Protection Committee arrived at its opinion. Include a summary of any discussions that might have been had amongst the Source Protection Committee members, especially where no consensus was reached.	Achievement of source protection plan objectives
<b>Answer:</b>		The SPC received and discussed the draft report at their March 16, 2023 SPC Meeting, at which time they concluded the Plan was meeting its objectives. No additional comments were received from the SPC members.	
<b>Comment:</b>			



# Source Water Protection Annual Report 2022 - Policy Implementation Status SPR - Lakehead

<b>Implementing Body</b>	<b>Municipality</b>	<b>Policy Tool</b>	Land Use Planning Approaches
<b>Policy Id</b>	RV.1.CW-PA	<b>Threat Type</b>	Future
<b>Legal Effect</b>	Conform with		
<b>Risk</b>	Significant,		
<b>Agency</b>	Municipality		

**Implementation Status:** Implemented

**Completed:** True

**Response:** Official Plan updated and adopted May 2018. Official Plan references SPP Policies. Zoning by-law updated December 2018.

Site Specific Zoning amendment 745-2013 passed, removing agriculture, stables, riding academies and dog kennels from list of permitted uses for portion of land parcel located in WHPA-A.

<b>Implementing Body</b>	<b>Health Unit</b>	<b>Policy Tool</b>	Specify Actions to be taken to implement plan or achieve its objectives
<b>Policy Id</b>	RV.3.CW-SP	<b>Threat Type</b>	Future & Existing
<b>Legal Effect</b>	Conform with		
<b>Risk</b>	Significant,		
<b>Agency</b>	Health Unit		

**Implementation Status:** Implemented

**Completed:** True

**Response:** 25 of 25 inspected. No issues observed. All septic systems will be inspected every 5 years from the date of initial inspection.

<b>Implementing Body</b>	<b>Municipality</b>	<b>Policy Tool</b>	Specify Actions to be taken to implement plan or achieve its objectives
<b>Policy Id</b>	RV.3.CW-SP	<b>Threat Type</b>	Future & Existing
<b>Legal Effect</b>	Conform with		
<b>Risk</b>	Significant,		
<b>Agency</b>	Municipality		

**Implementation Status:** Implemented

**Completed:** True

**Response:** Implemented October 2, 2014. Adopted by Council October 15, 2014  
No salt or snow stored in WHPA-A. No salt applied in WHPA-A.



# Source Water Protection Annual Report 2022 - Policy Implementation Status

**Implementing Body** Health Unit  
**Policy Id** RV.5.CW-EO  
**Legal Effect** Conform with  
**Risk** Significant,  
**Agency** Health Unit

**Policy Tool** Education / Outreach  
**Threat Type** Future & Existing

**Implementation Status:** Implemented

**Completed:** True

**Response:** Distributed to WHPA-A residents on:  
 February 7, 2014  
 January 11-15, 2016  
 January 16-20, 2017

**Implementing Body** Municipality  
**Policy Id** RV.5.CW-EO  
**Legal Effect** Conform with  
**Risk** Significant,  
**Agency** Municipality

**Policy Tool** Education / Outreach  
**Threat Type** Future & Existing

**Implementation Status:** Implemented

**Completed:** True

**Response:** Fact Sheet created  
 Package distributed prior to September 30, 2015  
 Fact Sheet created and distributed prior to September 30, 2015.

**Implementing Body** Municipality  
**Policy Id** TB.1.NLB-SP  
**Legal Effect** Strategic  
**Risk** Non Specific,  
**Agency** Municipality

**Policy Tool** Specify Actions to be taken to implement plan or achieve its objectives  
**Threat Type** Future & Existing

**Implementation Status:** Implemented

**Completed:** True

**Response:** Three buoys placed by private contractor. Removed every year at ice up. Requires re-installation every spring.



<b>PROGRAM AREA</b>	SOURCE WATER PROTECTION	<b>REPORT NO.</b>	SWP-03-2023
<b>DATE PREPARED</b>	April 12, 2023	<b>FILE NO.</b>	
<b>MEETING DATE</b>	April 20, 2023		
<b>SUBJECT</b>	Section 36 Workplan		

## RECOMMENDATION

### Suggested Resolution

**“THAT: the Lakehead Source Protection Area Section 36 Workplan is adopted **AND FURTHER THAT** a copy will be submitted to the Director of the Ministry of the Environment, Conservation and Parks (MECP) before May 7, 2023.”**

### LINK TO STRATEGIC PLAN (2023-2027)

Conserve and Sustain

- *Collaborate and partner with agencies and community organizations to take action in the protection of natural habitats and ecosystems, share decision-making, and address emerging issues that impact the health and sustainability of the Lakehead watershed.*

## EXECUTIVE SUMMARY

As per the amended Section 36 Order issued by the Minister of MECP on May 7, 2018, a Section 36 Workplan has been developed in consultation with the Source Protection Committee (SPC), participating municipalities of the Source Protection Area (Municipality of Oliver Paipoonge and the City of Thunder Bay), and the MECP, for approval by the Source Protection Authority (SPA).

A Section 36 Workplan demonstrates how the policies in the Source Protection Plan (SPP) are being implemented and reviews potential updates to the Plan and Assessment Report based on updated information, experience gained from implementing the SPP during periods between plan reviews and any other relevant information from annual progress reports.

Once approved the Section 36 Workplan will be submitted to the MECP, as required for their review.

## DISCUSSION

As per the amended Section 36 Order issued by the Minister of MECP on May 7, 2018, a Section 36 Workplan has been developed) in consultation with the Source Protection Committee (SPC), participating municipalities of the Source Protection Area (Municipality of Oliver Paipoonge and

the City of Thunder Bay), and the MECP, (a copy of the amended Section 36 Order is attached, Attachment 1).

A Section 36 Workplan demonstrates how the policies in the Source Protection Plan (SPP) are being implemented and reviews potential updates to the Plan and Assessment Report based on updated information, experience gained from implementing the SPP during periods between plan reviews and any other relevant information from annual progress reports.

The Workplan considered seven factors recommended by the MECP in the development of the Section 36 Workplan. These included environmental monitoring results, growth and infrastructure changes, council resolutions, policy effectiveness, implementation challenges, technical rule changes, and other local considerations. Consultation on the workplan included meetings with the affected member municipalities, MECP, the SPC and the SPA. The purpose of the meetings was to discuss the proposed workplan and receive feedback and comments. Through consultation with the City of Thunder Bay, no new drinking water threats or other issues were identified at the Surface Water Intake.

In early 2023, the Municipality of Oliver-Paipoonge reported elevated levels of arsenic found in the Rosslyn Village Municipal Drinking Water Supply exceeding the Ontario Drinking Water Standard. The Thunder Bay District Health Unit (TBDHU) issued a Drinking Water Advisory on March 9, 2023, advising all 32 users not to consume the water. The Municipality of Oliver Paipoonge is currently supplying drinking water to users on the system. Ongoing work and discussions are in progress between the Municipality, the TBDHU and MECP regarding the presence of arsenic in the Rosslyn Village drinking water system at the time of writing.

The following summarizes the proposed updates to the Source Protection Plan, as outlined in the table below.

<b>Proposed Update No.</b>	<b>Description of Proposed Update</b>	<b>Implementing Body/Municipality</b>	<b>Applicable Document</b>
1	Update of Policy RV.1.CW-PA in SPP to remove references to the size of prohibited Waste Disposal Sites.	Municipality of Oliver Paipoonge	SPP
2	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute Education and Outreach materials in the future. Remove EO materials related to agriculture.	Municipality of Oliver Paipoonge and TBDHU	SPP
3	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Municipality of Oliver Paipoonge	SPP

4	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Municipality of Oliver Paipoonge	SPP
5	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	City of Thunder Bay	SPP

Additionally, it is proposed that a geotechnical/hydrological study be completed in Rosslyn Village to confirm the source of arsenic recently reported in the water supply. If completed, the outcome of such technical studies may warrant updating the assessment report and SPP under a future Section 36 Workplan or Section 34 Order.

A copy of the Lakehead Source Protection Area Section 36 Workplan is attached, (Attachment 2).

In preparation for the Workplan, staff have met with our MECP Liaison Officer, Beth Forrest. Meetings and correspondence have been ongoing with affected member municipalities (Municipality of Oliver Paipoonge and the City of Thunder Bay). The SPC met on March 16, 2023 to discuss the Workplan content and requirements, and again on April 6, 2023 to review, discuss and approve the drafted Workplan. All comments received have been incorporated into the Workplan.

**FINANCIAL IMPLICATIONS**

Staff time required and any costs associated with any MECP approved workplan deliverables will be incorporated into future budgets. The current funding agreement expiring March 2024 does not include any additional time or funds for any required tasks. Future budget requests will consider future required funding.

**CONCLUSION**

A Workplan has been prepared proposing required updates to the Source Protection Plan, as per the amended Section 36 Order. Note, the SPC did not have any proposed updates to the assessment report during this review. A copy of the Section 36 Workplan is attached. The Workplan is to be submitted by the SPA to the MECP before May 7, 2023.

**BACKGROUND**

The *Clean Water Act, 2006*, was created by the Ontario Government to protect drinking water at the source as part of an overall commitment to human health and the environment and to ensure safe, clean drinking water for all Ontarians. This came after pathogens entered into the Municipal Drinking Water System for the Town of Walkerton, Ontario. Seven people died and thousands of others became ill from drinking the contaminated water. Protecting “source water” is the first step in a multi-barrier approach to ensure the quality and sustainability of Municipal Residential Drinking Water Supply. A key focus of Ontario’s *Clean Water Act, 2006* is the production of locally developed, science-based Assessment Reports and Source Protection Plans (SPPs). The

Assessment Report for the Lakehead Source Protection Area was approved in May 2011, and the Lakehead Source Protection Plan was approved on January 16, 2013.

There are two sources of Municipal drinking water within the Lakehead Source Protection Area: Bare Point Water Treatment Facility providing Lake Superior surface water to the City of Thunder Bay, and the Rosslyn Village Drinking Water Facility, which provides groundwater to 32 homes in Rosslyn Village.

Two Implementing Bodies implement the SPP’s legally binding policies associated with the Rosslyn Village Facility Wellhead Protection Area (Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit (TBDHU)). In addition, there are two non-legally binding policies applicable to the City of Thunder Bay, which do not require mandatory actions. They are associated with the Intake Protection Zones (IPZ) for the City’s Bare Point Water Treatment Plant.

To date, all policies as outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies.

The SPC/SPA received a Section 36 Order pursuant to clauses 36(1)(c) and (d) of the *Clean Water Act* on October 13, 2015. The order specified that the SPA was to submit a workplan by November 30, 2017 detailing any required updates to the assessment report and source protection plan. The SPA submitted the workplan on November 30, 2017, subsequent to which the Ministry responded on May 7, 2018 that no work was considered to be required at that time and that within five years an updated workplan was to be submitted to the Ministry.


**REFERENCE MATERIAL ATTACHED**

Attachment 1 – Section 36 Amendment Letter from MOECC, dated May 7, 2018

Attachment 2 – Lakehead Source Protection Area, Section 36 Workplan, Version 1.0, dated April 13, 2023

**PREPARED BY:**

Melissa Hughson, Watershed Manager

THIS REPORT SIGNED AND VERIFIED BY:  Tammy Cook Chief Administrative Officer	DATE: April 12, 2023
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Ministry of the Environment  
and Climate Change

Ministère de l'Environnement et de  
l'Action en matière de changement  
climatique

Office of the Minister

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Ontario



ENV 1283MC-2018-717  
CR: ENV 1283MC-2012-1829

MAY - 7 2018

Donna Blunt, Chair  
Lakehead Source Protection Authority  
130 Conservation Road  
P.O. Box 10427  
Thunder Bay ON P7B 5E4

Bob Hartley, Chair  
Lakehead Source Protection Committee  
RR#13  
460 Lakeshore Drive  
Thunder Bay ON P7B 5E4

Dear Ms. Blunt and Mr. Hartley:

I am pleased to follow up on your proposed workplan for the comprehensive review and update to the Lakehead source protection plan submitted in compliance with the order dated October 15, 2013, issued under section 36 of the *Clean Water Act*.

Your workplan demonstrates that implementation of the policies in the source protection plan is moving along well and that there is no need for a comprehensive update of your plan. You have noted in your workplan that minor updates could be made to your plan. Given that your proposed updates are limited in scope to minor clarifications and improvements in the assessment report and plan (for example, updating floodplain mapping), you are welcome to complete these as locally initiated amendments under section 34 of the *Clean Water Act* within the same timeline included in your workplan, March 31, 2019.

Given the above, I am amending the order dated October 13, 2015, issued pursuant to subsection 36 (1) of the *Clean Water Act* for the purpose of requiring the preparation and submission of a workplan to govern the next review of your assessment report and source protection plan.

Within five (5) years of the date of this order, the Lakehead source protection authority shall prepare and submit a workplan to the ministry for the next review and update of the assessment report and source protection plan. The workplan shall propose the detailed steps for the review, including which portions of the assessment report and plan are to be reviewed and updated along with supporting rationale, the timeframes for each step, and the consultation that would be undertaken. A summary of how the workplan was

developed shall also be included. The workplan shall be developed in consultation with the Lakehead source protection committee, all participating municipalities, and the Ministry of the Environment and Climate Change.

The development of the workplan must take into consideration any experience that has been gained from implementing the source protection plan during the periods between the plan reviews and any other relevant information from your annual progress reports on plan implementation. Once the workplan is submitted and reviewed by the ministry, and following any further consultation that the ministry considers advisable, a further order will be issued under section 36 that specifies the requirements, content and timeframes that will govern the next review and update of the Lakehead assessment report and source protection plan.

I want to thank you for the continued efforts of the source protection authority, committee and local communities to ensure sources of drinking water are protected. Significant progress has been made in source protection and the province looks forward to continuing to work with you and all stakeholders to protect sources of drinking water.

Sincerely,

A handwritten signature in cursive script that reads "Chris Ballard".

Chris Ballard  
Minister

c: Paul Evans, Deputy Minister, Ministry of Environment and Climate Change  
Heather Malcolmson, Director, Source Protection Programs Branch, MOECC  
Simon Shankie, Project Manager, Lakehead Conservation Authority

# Lakehead Source Protection Area

## Section 36 Workplan

Version 1.0

April 13, 2023

Prepared by the Lakehead Source Protection Authority

## Executive Summary

A Section 36 Order was issued to the Lakehead Source Protection Authority (SPA) from the Minister of the Ministry of Environment and Climate Change (MOECC), (now named the Ministry of the Environment, Conservation and Parks [MECP]). The Order specified that the SPA shall prepare and submit a workplan to the MECP by November 30, 2017. The SPA submitted a workplan demonstrating how the policies in the Source Protection Plan (SPP) were being implemented and explained the minor updates that could be made to the plan.

In a letter to the SPA dated May 7, 2018, the Minister of MECP accepted the submitted workplan and advised that given the proposed updates were limited in scope to minor clarifications and improvements in the assessment report that amendments under section 34 of the *Clean Water Act* were not mandatory but could be completed at the discretion of the SPA. The Minister amended the October 13, 2015, Section 36 Order to advise that a workplan to govern the next review of the assessment report and source protection plan would be required within five (5) years of the date of the order.

The amended Order required that the workplan include detailed steps for the review of the assessment report and SPP along with supporting rationale, the timeframes for each step and the consultation that would be undertaken and a summary of how the workplan was developed. The Minister stated that the workplan shall be developed in consultation with the Lakehead Source Protection Committee (SPC), participating municipalities of the Source Protection Area, and the MECP. The Order also required that the Lakehead SPA take into consideration any experience that has been gained from implementing the source protection plan during the periods between the plan reviews and any other relevant information from the annual progress reports on plan implementation in preparation of the workplan.

There are two sources of Municipal drinking water within the Lakehead Source Protection Area: Bare Point Water Treatment Facility providing Lake Superior surface water to the City of Thunder Bay, and the Rosslyn Village Drinking Water Facility, which provides groundwater to 32 homes in Rosslyn Village. Two Implementing Bodies implement the SPP's legally binding policies associated with the Rosslyn Village Facility Wellhead Protection Area (Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit (TBDHU)). In addition, there are two non-legally binding policies applicable to the City of Thunder Bay, which do not require mandatory actions. They are associated with the Intake Protection Zones (IPZ) for the City's Bare Point Water Treatment Plant.

The Lakehead Source Protection Plan was approved by the Minister of MOECC on January 16, 2013, with an effective date of October 1, 2013. To date, all policies as

outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies. The Official Plan Update for the Municipality of Oliver Paipoonge was approved by the Ministry of Municipal Affairs (MMA) and adopted in May 2018. The Official Plan references the applicable SPP Policies. The Zoning By-law for the Municipality of Oliver Paipoonge was also updated in December 2018. The update included a Site Specific Zoning amendment 745-2013 that was passed, removing agriculture, stables, riding academies and dog kennel from the list of permitted uses for a portion of land parcel located in WHPA-A.

The Lakehead SPA considered seven factors recommended by the MECP in the development of the Section 36 Updated Workplan. These included environmental monitoring results, growth and infrastructure changes, council resolutions, policy effectiveness, implementation challenges, technical rule changes, and other local considerations. Consultation on the workplan included meetings with the affected member municipalities, MECP, the SPC and the SPA. The purpose of the meetings was to discuss the proposed workplan and receive feedback and comments. Through consultation with the Municipalities, no new drinking water threats or other issues were identified at the Municipal Wells or at the Surface Water Intake.

The Lakehead SPA is proposing the following updates to the Source Protection Plan, as outlined in the table below.

<b>Proposed Update No.</b>	<b>Description of Proposed Update</b>	<b>Implementing Body/Municipality</b>	<b>Applicable Document</b>
1	Update of Policy RV.1.CW-PA in SPP to remove references to the size of prohibited Waste Disposal Sites.	Municipality of Oliver Paipoonge	SPP
2	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute Education and Outreach materials in the future. Remove EO materials related to agriculture.	Municipality of Oliver Paipoonge and TBDHU	SPP
3	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Municipality of Oliver Paipoonge	SPP
4	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Municipality of Oliver Paipoonge	SPP

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	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	City of Thunder Bay	SPP
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Additionally, it is proposed that a geotechnical study be completed in Rosslyn Village to confirm the source of arsenic recently reported in the water supply. If completed, the outcome of such technical studies may warrant updating the assessment report and SPP under a future Section 36 workplan.

The timeline for completion of the proposed updates is March 2025. Lakehead SPA staff, in consultation with the MECP, applicable Implementing Bodies and municipalities, will complete the proposed changes. Consultation may also take place with persons engaged in significant drinking water threat activities if the policy changes affect persons engaged in existing significant threat activities.

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M-1 – Lakehead Source Protection Area

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Appendix A: Letter to Lakehead Source Protection Authority from Minister of Environment and Climate Change, (October 13, 2015)

Letter to the Lakehead Source Protection Authority and The Lakehead Source Protection Committee, (May 7, 2018)



## 1 Introduction

A Section 36 Order was issued to the Lakehead Source Protection Authority (SPA) by the Minister of the Ministry of Environment and Climate Change (MOECC), now named the Ministry of the Environment, Conservation and Parks (MECP), stating that the SPA shall prepare and submit a workplan to the MECP by November 30, 2017. The SPA submitted a workplan demonstrating how the policies in the Source Protection Plan (SPP) were being implemented and proposed some minor administrative updates that could be made to the plan. A copy of the Section 36 Order is included in Appendix A.

The Minister issued a letter dated May 7, 2018 to the SPA and the Source Protection Committee (SPC) accepting the Section 36 Workplan submitted by the SPA on November 30, 2017 and stated that given the proposed updates are limited in scope to minor clarifications and improvements in the assessment report and plan that there is no need for a comprehensive update of the plan, but that proposed updates could be completed as locally initiated amendments under Section 34 of the *Clean Water Act*. Given the minor recommended updates to the plan, the SPA did not complete Section 34 updates to the Lakehead SPP or Assessment Report.

The Minister also amended the Section 36 Order, stating that within five years of the date of the Order (i.e., May 7, 2023), the Lakehead SPA shall prepare and submit a Workplan to the Ministry for the next review and update of the Assessment Report and Source Protection Plan. The Minister summarized that the workplan shall propose the detailed steps for review, including which portions of the assessment report and plan are to be reviewed and updated along with supporting rationale, the timeframes for each step and the consultation that would be undertaken. The Workplan is also to include a summary of how it was developed and should be completed in consultation with the Lakehead SPC, all participating municipalities and the MECP. A copy of the amended Section 36 Order is included in Appendix A.

### 1.1 Lakehead Source Protection Area

The Lakehead Source Protection Area is 11,526 square kilometres and covers the area of land where the flow of water contained within the secondary watershed would eventually pass through the Lakehead Region Conservation Authority (LRCA) area of jurisdiction and reach Lake Superior. The Lakehead watershed is a one tier municipal governance structure. The LRCA area of jurisdiction, which differs from the Lakehead Source Protection Area, covers 2,600 square kilometres and is defined by the municipal boundaries of its eight Member Municipalities including: City of Thunder Bay, Municipalities of Oliver Paipooonge, Shuniah and Neebing and the Townships of O'Connor, Conmee, Dorion and Gillies. See Map M-1, Lakehead Source Protection Area.

Within the Lakehead Source Protection Area, there are two sources of Municipal drinking water: Bare Point Water Treatment facility providing Lake Superior surface water to the City of Thunder Bay, and the Rosslyn Village Drinking Water Facility, which provides groundwater to 32 homes within Rosslyn Village.

There are two Implementing Bodies that implement the SPP’s legally binding policies, they include the Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit (TBDHU) and are related to the Wellhead Protection Zones associated with the Rosslyn Village water supply. No significant or moderate threats were found to occur within the Intake Protection Zones (IPZ) of the City of Thunder Bay’s Bare Point Water Treatment Plant; as such, there are only two non-legally binding policies, which do not require mandatory actions, are applicable to the City of Thunder Bay.

**1.2 Lakehead Source Protection Plan Implementation Program**

**1.2.1 Implementation Status**

The Lakehead Source Protection Plan was approved by the Minister of MOECC on January 16, 2013, with an effective date of October 1, 2013. To date, all policies as outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies. It is noted that since the submission of the first Workplan submitted in 2017 that Policy # RV.1CW-PA has now been fully implemented, as the Official Plan and Zoning By-law were updated per the policy. Additionally, a site-Specific Zoning amendment 745-2013, was passed by the Municipality of Oliver Paipoonge Council, which removed agriculture, stables, riding academies and dog kennels from the list of permitted uses for portion of land parcel located in Wellhead Protection Area - A (WHPA-A), thereby removing any future agricultural threats.

The Lakehead SPA has had a good relationship with Implementing Bodies and all reporting has been received on time. The SPA has worked closely with the Implementing Bodies to provide templates for reporting and Lakehead SPA staff send out annual reminders before the deadline date.

**1.2.2 Summary of 2017 Workplan**

The Section 36 Workplan submitted in 2017 proposed the following changes to the Lakehead Assessment Report and SPP, as outlined in the table below.

Proposed Update No.	Description of Proposed Update	Implementing Body/Municipality	Applicable Document
1	IPZ-2 update with new floodplain mapping for North Star Creek.	City of Thunder Bay	Assessment Report and SPP

2	Update of Policy RV.1.CW-PA in SPP to remove references to the size of prohibited Waste Disposal Sites.	Municipality of Oliver Paipoonge	SPP
3	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute Education and Outreach materials in the future. Remove EO materials related to agriculture.	Municipality of Oliver Paipoonge and TBDHU	SPP
4	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Municipality of Oliver Paipoonge	SPP
5	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Municipality of Oliver Paipoonge	SPP
6	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	City of Thunder Bay	SPP

Given the minor nature of the proposed updates, the Minister found that a comprehensive update to the assessment report and plan were not required, and the SPA did not initiate the updates under Section 34 of the CWA.

### **1.2.3 Highlights from Annual Progress Reports**

Since the last Workplan, annual reporting has been completed yearly from 2018 to 2023. Actions completed by the Municipality of Oliver Paipoonge since 2017 included the Official Plan and Zoning By-Law updates which reference the SPP policies within the plan being officially adopted; circulation of all Official Plan and Zoning By-law applications to the SPA; and completion of the annual reporting to the SPA.

Actions completed by the TBDHU since 2017 included the required reinspection of the 25 septic systems in Rosslyn Village with no deficiencies observed; and completion of the annual reporting to the SPA. The next round of septic system inspections will be between 2024 and 2026.

Actions completed by the City of Thunder Bay since 2017 included placing three buoys marking the anchorage boundary in proximity to the intake yearly during the ice-free period. The City of Thunder Bay updated the Standard Operating Procedure for Intake Contamination in their Emergency Management Plan regarding monitoring and reporting of blue-green algae blooms; any updates to the procedure and plan have been forwarded to the SPA.

### **1.2.4 Local Successes and Accomplishments**

The following are some of the local successes and accomplishments as part of the Lakehead SPP:

- A Zoning amendment in the Municipality of Oliver Paipoonge was completed to remove agricultural zoning on land in WHPA-A to prohibit future agricultural uses.
- 10 out of 25 septic systems in WHPA-A were replaced utilizing early action funding.
- All septic systems in WHPA-A were inspected by TBDHU as of July 2016 with no issues identified. No fees were charged by the TBDHU for the inspections.
- Re-inspections (i.e., required every five years) of all septic systems in WHPA-A were completed between 2019 and 2021 with no issues identified, (the next inspection round will be between 2024 – 2026).
- Preparation of a Salt Management Plan has been completed by the Municipality of Oliver Paipoonge. There is no application of road salt or storage of salt/snow in WHPA-A.
- The City of Thunder Bay places three buoys to mark the anchorage boundary in proximity to the Bare Point Water Treatment Plant surface water Intake during the ice-free period. The current minimum requirement in the SPP is one buoy.

## 2 Workplan Development

### 2.1 Evaluation of Factors for Workplan Development

The Lakehead SPA considered the following seven factors in the development of the Section 36 Workplan:

1. Environmental monitoring results
2. Growth and infrastructure changes
3. Council resolutions
4. Policy effectiveness
5. Implementation challenges
6. Technical Rule Changes
7. Other local considerations

#### 2.1.1 Environmental Monitoring Results

The *Chief Drinking Water Inspector Annual Report 2021/2022* (period of April 1 to March 31) reported that the Municipality of Oliver Paipooonge, Rosslyn Village Subdivision Drinking Water System achieved 100% of their water quality tests meeting standards, and the City of Thunder Bay Bare Point Water System achieved 99.83%. This indicates that the SPP is meeting its objective of protecting water at its source.

Through consultation with the City of Thunder Bay, no new drinking water threats or other issues were identified at the Surface Water Intake.

The Municipality of Oliver-Paipooonge in early 2023 reported elevated levels of arsenic found in the Rosslyn Village Municipal Drinking Water Supply exceeding the Ontario Drinking Water Standard. The issue was first detected in December 2022 in the north well at which time the affected well was taken offline and water was solely sourced from the south well. Ontario's drinking water standard as well as the Canadian Drinking Water Guideline for arsenic is 0.01 mg/l; samples tested in March 2023 from the south well contained 0.011 to 0.016 mg/l. The TBDHU issued a Drinking Water Advisory on March 9, 2023, advising all 32 users not to consume the water.

Arsenic may enter water sources naturally when mineral deposits or rocks containing arsenic dissolve. Arsenic may also get into water through the burning of fossil fuels, metal production, agricultural use or waste burning. There have been no changes in land use within the WHPA to suggest arsenic is entering the water supply through land use practices. The Thunder Bay Area Aquifer Characterization, Groundwater Management and Protection Study completed in July 2005 that contributed to the development of the assessment report identified cemeteries as a potential source of arsenic, however, there are no cemeteries located within the WHPA.

At the time of writing this report, the TBDHU, Municipality of Oliver-Paipoonge and MECP were reviewing viable options to treat the water supply. The same groundwater aquifer supplies untreated water to homes with private wells in the area. Education and outreach to these property owners not on the municipal water supply may be an initiative worth pursuing. Additional geotechnical studies could be carried out to determine the source of the arsenic if warranted. Such studies could provide additional information to warrant updating the assessment report and/or SPP.

### **2.1.2 Growth and Infrastructure Changes**

There has been no significant growth in the City of Thunder Bay with the population slightly increasing from 107,909 in 2016 to 108,843 in 2021. No new or expanded drinking water systems are proposed within the City of Thunder Bay.

A slight increase in population has also occurred for the Municipality of Oliver Paipoonge over the same period with a population increase from 5,922 in 2016 to 6,035 in 2021. No new drinking water systems are planned for Oliver Paipoonge; however, additional users may be added to the existing Rosslyn Village Drinking Water System, if a new subdivision of approximately 50 new homes is built south of the drinking water system.

Existing groundwater quantity data indicates that there is sufficient capacity for the system to accommodate the additional capacity for the subdivision. It was estimated that the current drinking water system utilizes less than one percent of the aquifer capacity. Based on the existing groundwater data, if an assumed increase of 10% of annual groundwater demand was added to the system, the estimated aquifer usage will remain at approximately <1% of aquifer capacity; therefore, the additional pressure from the subdivision is not expected to create any new water quantity threats or have a significant impact on the system.

### **2.1.3 Council Resolutions**

There have been no municipal council resolutions to add or include other drinking water systems in the Lakehead Source Protection Area.

### **2.1.4 Policy Effectiveness**

All polices outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies. The Municipality of Oliver Paipoonge has updated their Official Plan and Zoning By-law to conform with provisions 1 to 6 of Policy # RV.1CW-PA. Day-to-day *Planning Act* decisions by the Municipality consider and conform with significant drinking water threat policies.

### **2.1.5 Implementation Challenges**

The Lakehead SPA has no concerns on the reports submitted by the applicable Implementing Bodies. Annual reporting has been received on time and the Implementing Bodies are complying with their applicable policies.

### **2.1.6 Technical Rule Changes**

Since the last Workplan was submitted, Amendments to the Technical Rules were completed by the MECP in 2018 and 2021. The Lakehead SPA reviewed the addition of liquid hydrocarbon pipelines to the list of drinking water threats as well as the changes to the Table of Drinking Water Threats, (specifically, salt storage and application, snow storage, and fuel storage); no other changes were considered relevant. Additionally, the update to Rule 95.1 regarding vulnerability scores for Great Lakes and connecting channel drinking water systems is not considered to require an update to the plan as there is no evidence to suggest that source of water for Lake Superior is more vulnerable to contamination than the previous rules allowed.

Based on an assessment of the updates to the Technical Rules that would affect the Lakehead regions source water supplies, it was determined that the updates would not lead to moderate or significant threats to the drinking water sources, and therefore, no changes to the assessment report or SPP are required.

### **2.1.7 Other Local Considerations**

No other local considerations were relevant to updating the SPP or Assessment Report.

## **2.2 Workplan Consultation**

Consultation on the workplan included correspondence and/or meetings with staff from affected member municipalities, Implementing Bodies, MECP, the SPC and the SPA. The purpose of the correspondence/meetings was to discuss the proposed workplan and receive feedback and comments.

The following summarizes completed consultation:

- Municipality of Oliver Paipoonge
  - March 14, 2023 – discussed the content of the Section 36 Workplan and review documentation for the March 16, 2023, SPC Meeting with Mayor of Oliver Paipoonge (Chair of SPC)
  - March 16, 2023 – SPC meeting, reviewed potential Workplan items with Mayor of Oliver Paipoonge (Chair of SPC) and Director of Operations (SPC Member)
  - April 6, 2023 - SPC meeting, reviewed Draft Workplan with Mayor of Oliver Paipoonge (Chair of SPC) and Director of Operations (SPC Member)

- Thunder Bay District Health Unit
  - April 2023 – discussed the content of the Section 36 Workplan and issue concerning elevated levels of arsenic in Rosslyn Village Drinking Water System
- City of Thunder Bay
  - March 2023 – various discussions regarding fuel storage, salt application, potential policies, current policies, etc.
  - March 16, 2023 – SPC meeting, reviewed potential Workplan items with Walter Turek, Process Engineer (SPC Member)
  - April 6, 2023 - SPC meeting, reviewed Draft Workplan with Walter Turek, Process Engineer (SPC Member)
- MECP
  - November 2022 (B. Forrest and Gail Willis) – general discussion regarding annual reporting and Section 36 Workplan.
  - March 2023 – meeting and emails (B. Forrest, T. Cook, M. Hughson) to discuss Section 36 Workplan; available guidance documents; information and funding related to arsenic.
- Lakehead Source Protection Committee
  - March 16, 2023 – discussed the Section 36 Workplan and updates being considered.
  - April 6, 2023 – discussed and approved the Section 36 Workplan Draft Version 1.0.
- Lakehead Source Protection Authority
  - April 20, 2023 – discussed and approved the Section 36 Workplan Final Version 2.0.

### ***2.3 Reassessment of 2017 Workplan Updates***

The updates proposed in the 2017 Section 36 Workplan were reconsidered during development of this updated Workplan to assess if they were still relevant based on current information. The table below summarizes the 2017 proposed updates. The reassessment determined that all 2017 proposed updates would be included in the 2023 Workplan except for proposed update No. 1 which involved updating the Assessment Report with the floodplain mapping for North Star Creek.

Floodplain mapping for North Star Creek was completed after the Assessment Report was finalized. The mapping determined that the actual floodplain would be less than the 120m buffer that was used in the Assessment Report to delineate IPZ-2. The SPC and SPA determined that it was unnecessary to update the assessment report to a lesser constraint, and the 120m value would be retained.

Proposed updates No. 2-7 were considered relevant for the purpose of this Workplan.



Proposed Update No.	Description of Proposed Update	
1	IPZ-2 update with new floodplain mapping for North Star Creek.	Removed
2	Update of Policy RV.1.CW-PA in SPP to remove references to the size of prohibited Waste Disposal Sites.	Carried forward
3	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute Education and Outreach materials in the future. Remove EO materials related to agriculture.	Carried forward
4	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Carried forward
5	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Carried forward
6	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	Carried forward

## 2.4 Proposed Workplan Updates

The workplan update process is separated into two categories:

- i) Updates to the Assessment Report
- ii) Updates to the Source Protection Plan

### 2.4.1 Proposed Assessment Report Updates

#### *Evaluation of Relevant Technical Rule Amendments*

Lakehead SPA staff completed a review of the Technical Rule changes and conclude that there are no changes that will have a significant impact on either the Rosslyn Village or Bare Point Drinking Water Systems.

#### *General Deficiencies Noted in the Approved Assessment Report*

General deficiencies noted in the Approved Assessment Report for the Lakehead Source Protection Area, dated May 2011 included:

- Intake Protection Zone 3 not delineated;
- Lack of groundwater well data and surface water intake data;
- No data on groundwater/surface water interactions;
- Lack of long-term weather data;

- Lack of available depth, soil composition and water table depth data to delineate Highly Vulnerable Aquifers with any certainty; and
- Aquifer vulnerability was not assessed in a large part of the Lakehead Source Protection Area due to a lack of available data.

The SPC and SPA decided that the deficiencies noted above do not warrant recommended action in the Section 36 Workplan at this time. Defining IPZ-3 is not considered necessary at this time, as vulnerability scoring would be less than IPZ-2 and would not result in any significant risks or required policies. Additionally, no new threats are known that require addressing in the plan. Several deficiencies are related to a lack of overall base data, which is not likely to become available and therefore cannot contribute to improving the assessment report or SPP. Additionally, it was discussed and determined that acquiring the identified missing data will likely not result in the identification of new threats or result in the development of new policies.

#### *Proposed Study*

It is recommended that additional geotechnical studies be completed in Rosslyn Village to confirm the source of arsenic recently reported in the water supply. If completed, the outcome of such technical studies may warrant updating the assessment report and SPP under a future Section 36 Workplan or Section 34 Order.

### **2.4.2 Proposed Source Protection Plan Updates**

The proposed updates to the SPP outlined below are administrative changes to the Plan, and are the same proposed updates recommended from 2017. Lakehead SPA staff, in consultation with the MECP, and applicable Implementing Bodies and municipalities, can complete the proposed changes if required.

#### *Proposed Update No. 1*

Provision 1 of Policy RV.1.CW-PA in the SPP lists the types of Waste Disposal Site (WDS) that are prohibited in WHPA-A. The following prohibited WDS include references to WDS size:

- Landfarming of petroleum refining waste (**more than ten hectares**);
- Landfilling of hazardous waste (**less than one hectare**);
- Landfilling of municipal waste (**less than one hectare**); and,
- Landfilling of commercial or industrial waste (**less than one hectare**).

Size references will be removed since the intent was to prohibit all WDS, not just ones of a certain size. The proposed completion date for this update is March 2025.

#### *Proposed Update No. 2*

Policy RV.5.CW-EO requires the following Education and Outreach (EO) materials to be distributed:

- Thunder Bay District Health Unit:
  - provide information to landowners whose properties are serviced by an on-site sewage system within WHPA- A. The information shall be made available for a minimum of two years.
- Municipality of Oliver Paipoonge:
  - shall develop an education program regarding the potential harmful effects of plane de-icer within the WHPA-A.
  - to address all agricultural related drinking water threats (existing and future – Agricultural Source Material, Non-Agricultural Source Material, commercial fertilizer, pesticide and livestock grazing or pasturing of land, an outdoor confinement area or farm animal yard) the Municipality shall develop an education and awareness program to advise the landowner in WHPA-A whose property currently contains existing agricultural threats. The Municipality shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats.
  - shall prepare a package that will include information for best management practices and to raise awareness of and reduce drinking water threats related to the harmful effects of DNAPLs impacting groundwater resources.

The above EO materials will be reviewed to determine if a one-time deliverable was adequate. The current wording in Policy RV.5.CW-EO does not require the Implementing Bodies to review or update the EO materials and it is anticipated that additional information could be available in the future that should be distributed to homeowners and applicable stakeholders. For example, TBDHU should review the EO materials related to septic systems when the inspections are completed every five years, and update and distribute them at the time of inspection. The wording in the Policy will be amended to review and update EO materials as necessary. The Municipality of Oliver Paipoonge has passed a site-specific zoning amendment which removed agriculture, stables, riding academies and dog kennels from the list of permitted uses on the portion of a parcel of agricultural land partially located in WHPA-A, which prohibits future agricultural uses. With this change in zoning, there are no longer any future agricultural related drinking water threats applicable to WHPA-A. Policy RV.5.CW-EO will be amended to remove the EO Policies relating to agriculture, as there are no current or future agricultural risks. The proposed completion date for this update is March 2025.

### *Proposed Update No. 3*

Provision 7 of Policy RV.1.CW-PA in the SPP required that the Official Plan and Zoning By-law for the Municipality of Oliver Paipoonge be brought into conformity with Provisions 1-6 of Policy RV.1.CW-PA. The 2018 Official Plan and 2019 Zoning By-Law were

updated to include references to the Policies. The day-to-day *Planning Act* decisions by the Municipality conform with significant drinking water threat policies; however, the wording in the Policy does not require that the conformity is maintained in future updates to the Official Plan and Zoning By-Law. The wording in the Policy will be amended to require that future updates of the Official Plan and Zoning By-Law continue to include all applicable SPP Policies. The proposed completion date for this update is March 2025.

*Proposed Update No. 4*

Policy RV.3.CW-SP required that the Municipality of Oliver Paipoonge prepare a Salt Management Plan to address the sensitivity of the Rosslyn Village WHPA-A within one year of the SPP taking affect. The Salt Management Plan was completed on October 1, 2014, and adopted by Council on October 15, 2014; however, the wording in the Policy does not require updates and/or reviews of the Salt Management Plan. It is anticipated that the science related to the management of salt will improve in the future; therefore, the policy wording will be amended to require that the Municipality of Oliver Paipoonge review their Salt Management Plan when new information becomes available and complete applicable updates to the Salt Management Plan when necessary. The proposed completion date for this update is March 2025.

*Proposed Update No. 5*

Policy TB.1.NLB-SP states that the City of Thunder Bay should update a Spill Prevention and Contingency Plan, which may include, at minimum placing one buoy at the anchorage boundary that is within proximity to the Intake. After completion of the proposed SPP and prior to approval, the Lakehead SPA passed a Resolution suggesting that a minimum of two buoys are placed at the intersections of the anchorage line and IPZ-2 if depth permits. The City of Thunder Bay currently places three buoys at the Intake to define the borders of the anchorage boundary. Since the three buoys improve the anchorage boundary around the Intake and the City of Thunder Bay is already placing the additional buoys, the wording in the SPP will be amended to include the minimum requirement of placing three buoys on an annual basis within proximity to the Intake to define the anchorage boundary. The proposed completion date for this update is March 2025.

### 3 Conclusion

All policies as outlined in the Lakehead SPP have been implemented by the respective Implementing Bodies. Through consultation with the Municipalities, no new drinking water threats or other issues were identified at the Municipal Wells or at the Surface Water Intake. In 2021/2022, 100% of water quality tests meeting standards was achieved for the Rosslyn Village Subdivision Drinking Water System, and the City of Thunder Bay Bare Point Water System achieved 99.83%. This indicates that the SPP is meeting its objective of protecting water at its source. The Municipality of Oliver Paipoonge has recently reported slightly elevated levels of arsenic in their drinking water system. Users have been advised by the TBDHU to stop consuming the water until further notice.

The Lakehead SPA is proposing the following changes to the Lakehead Approved Assessment Report and SPP, as outlined in the table below.

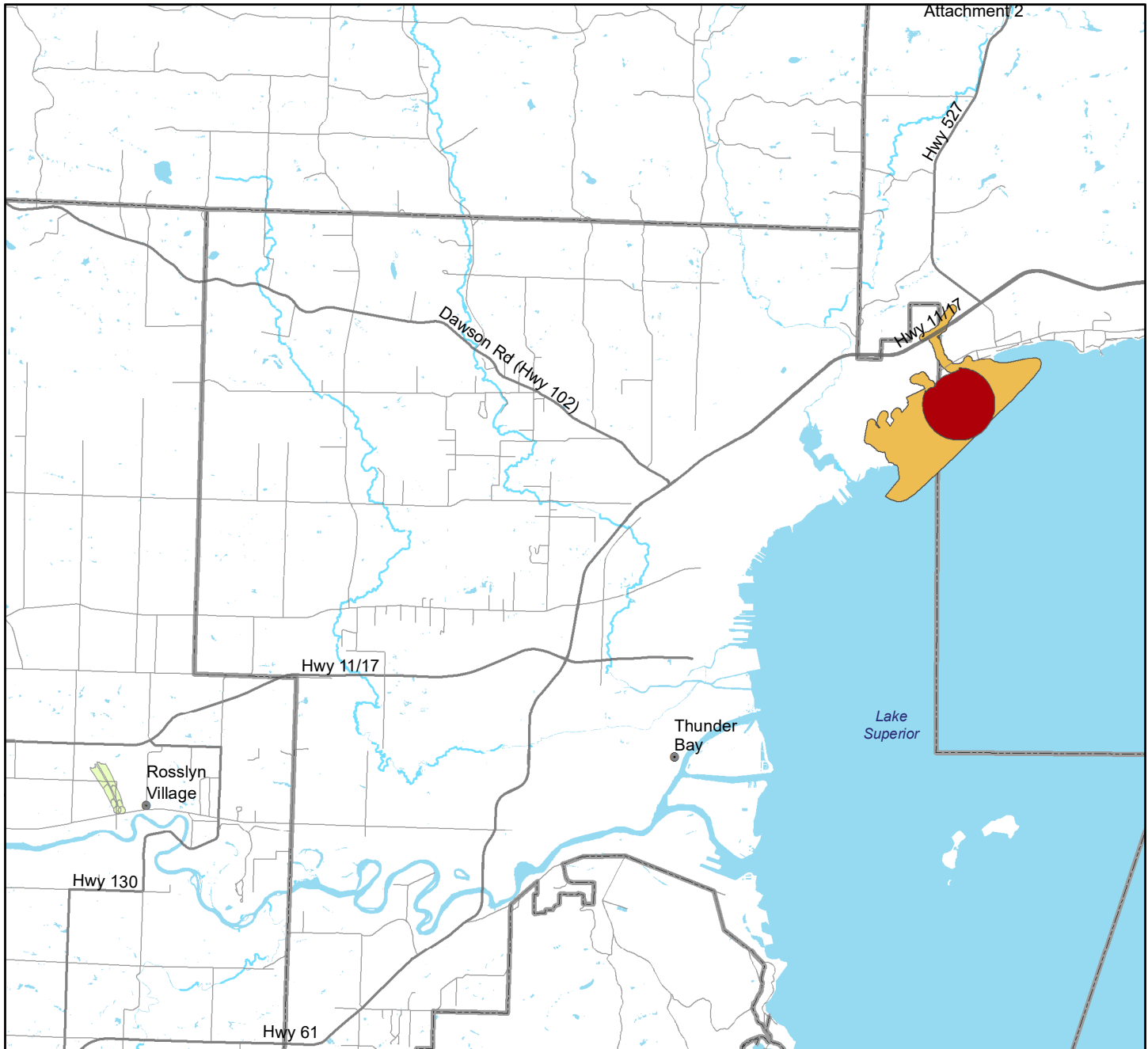
Proposed Update No.	Description of proposed update	Implementing Body/Municipality	Applicable Document
1.	Update of Policy RV.1.CW-PA in SPP to remove references to WDS size.	Municipality of Oliver Paipoonge	SPP
2.	Review of Policy RV.5.CW-EO in SPP to assess the need to distribute EO materials in the future. Remove EO materials related to agriculture.	Municipality of Oliver Paipoonge and TBDHU	SPP
3.	Update of Policy RV.1.CW-PA in SPP to ensure future updates of Official Plan and Zoning continue to reflect applicable policies.	Municipality of Oliver Paipoonge	SPP
4.	Update of Policy RV.3.CW-SP in SPP to require updates and/or reviews of Salt Management Plan.	Municipality of Oliver Paipoonge	SPP
5.	Update of Policy TB.1.NLB-SP in SPP to require the placement of a minimum of three buoys at the surface water Intake.	City of Thunder Bay	SPP

The timeline for completion of the proposed updates is March 2025. Lakehead SPA staff, in consultation with the MECP and applicable Implementing Bodies and municipalities, will complete the proposed changes. Consultation may also take place with persons engaged in significant drinking water threat activities if the policy changes affect persons engaged in existing significant threat activities.

*Proposed Study*

It is recommended that additional geotechnical studies be completed in Rosslyn Village to confirm the source of arsenic recently reported in the water supply. If completed, the outcome of such technical studies may warrant updating the assessment report and SPP under a future Section 36 workplan or a Section 34 Order.

# Maps



**Map M-1  
Lakehead Source  
Protection Area**

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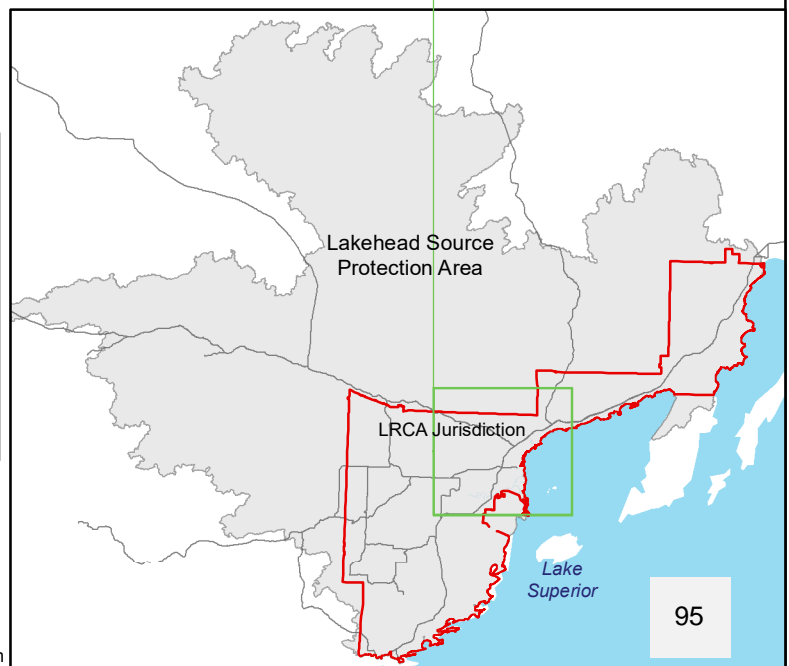
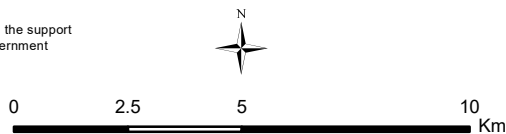
Base data supplied, under licence,  
by members of the  
Ontario Geospatial Data  
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Made possible through the support  
of the Ontario Government

**Legend**

- Wellhead Protection Areas
- Intake Protection Zone**
- IPZ-1
- IPZ-2
- LRCA Boundary
- Municipal Boundary
- Highway
- Road
- Drainage**
- Water Body
- River





## Appendix A

**Ministry of the Environment  
and Climate Change**

**Ministère de l'Environnement et de  
l'Action en matière de changement  
climatique**

Office of the Minister

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**OCT 13 2015**

ENV1283MC-2012-1829

Mr. Bob Hartley  
Chair, Lakehead Source Protection Committee  
R.R. #13, 460 Lakeshore Drive  
Thunder Bay, ON P7B 5E4

Mr. Bill Bartley  
Chair, Lakehead Source Protection Authority  
Box 10427, 130 Conservation Road  
Thunder Bay, ON P7B 6T8

Dear Mr. Hartley and Mr. Bartley:

I am writing to you, further to the approval for the Lakehead source protection plan. You will recall that when the previous Minister, the Honourable Jim Bradley, approved the plan on January 16, 2013, there was no decision on the timing for the future review of the plan. Staff have since consulted with the Lakehead source protection authority and the source protection committee on the preferred approach for future plan review, and I am issuing you an updated Section 36 Order, consistent with those I have issued for other approved plans in the province, containing details regarding this approach.

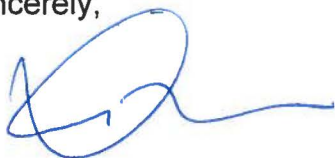
Pursuant to clauses 36 (1) (c) and (d), and as an initial step in the development of detailed requirements to govern the plan's review, the Lakehead source protection authority shall prepare and submit a workplan to the ministry. The workplan shall propose the detailed steps for the review of the plan, including which portions of the plan are to be reviewed, the timeframes for each step of the review, the consultation that would be undertaken as part of the review, and rationale for each step. A summary of how the workplan was developed shall also be included. The workplan shall be developed in consultation with the Lakehead source protection committee, participating municipalities of the source protection area, and the Ministry of the Environment and Climate Change.

The development of the workplan must take into consideration any experience that has been gained from implementing the source protection plan and information from the first two annual progress reports on plan implementation (due May 2016 and May 2017). Accordingly, the workplan shall be submitted to the ministry no later than November 30, 2017. Once the workplan is submitted and reviewed by the ministry, and following any further consultation that the ministry considers advisable, a further order can be issued under section 36 that specifies more detailed requirements outlining the content and timeframes that will govern the review of the Lakehead source protection plan.

Staff have informed me of the actions that have been taken by those responsible for the policies within the Lakehead region, and your community is to be commended on the manner in which implementation is proceeding. Significant progress has been made in source protection and the Province looks forward to continuing to work with you and all stakeholders to protect drinking water.

Once again, thank you for your commitment to protect Ontario's source waters, and please accept my best wishes.

Sincerely,



Glen Murray  
Minister

c: Paul Evans, Deputy Minister, Ministry of the Environment and Climate Change  
Sue Lo, Assistant Deputy Minister, DWMD, Ministry of the Environment and Climate Change  
Heather Malcomson, Director, SPPB, Ministry of the Environment and Climate Change

Ministry of the Environment  
and Climate Change

Ministère de l'Environnement et de  
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Ontario



ENV 1283MC-2018-717  
CR: ENV 1283MC-2012-1829

MAY - 7 2018

Donna Blunt, Chair  
Lakehead Source Protection Authority  
130 Conservation Road  
P.O. Box 10427  
Thunder Bay ON P7B 5E4

Bob Hartley, Chair  
Lakehead Source Protection Committee  
RR#13  
460 Lakeshore Drive  
Thunder Bay ON P7B 5E4

Dear Ms. Blunt and Mr. Hartley:

I am pleased to follow up on your proposed workplan for the comprehensive review and update to the Lakehead source protection plan submitted in compliance with the order dated October 15, 2013, issued under section 36 of the *Clean Water Act*.

Your workplan demonstrates that implementation of the policies in the source protection plan is moving along well and that there is no need for a comprehensive update of your plan. You have noted in your workplan that minor updates could be made to your plan. Given that your proposed updates are limited in scope to minor clarifications and improvements in the assessment report and plan (for example, updating floodplain mapping), you are welcome to complete these as locally initiated amendments under section 34 of the *Clean Water Act* within the same timeline included in your workplan, March 31, 2019.

Given the above, I am amending the order dated October 13, 2015, issued pursuant to subsection 36 (1) of the *Clean Water Act* for the purpose of requiring the preparation and submission of a workplan to govern the next review of your assessment report and source protection plan.

Within five (5) years of the date of this order, the Lakehead source protection authority shall prepare and submit a workplan to the ministry for the next review and update of the assessment report and source protection plan. The workplan shall propose the detailed steps for the review, including which portions of the assessment report and plan are to be reviewed and updated along with supporting rationale, the timeframes for each step, and the consultation that would be undertaken. A summary of how the workplan was

developed shall also be included. The workplan shall be developed in consultation with the Lakehead source protection committee, all participating municipalities, and the Ministry of the Environment and Climate Change.

The development of the workplan must take into consideration any experience that has been gained from implementing the source protection plan during the periods between the plan reviews and any other relevant information from your annual progress reports on plan implementation. Once the workplan is submitted and reviewed by the ministry, and following any further consultation that the ministry considers advisable, a further order will be issued under section 36 that specifies the requirements, content and timeframes that will govern the next review and update of the Lakehead assessment report and source protection plan.

I want to thank you for the continued efforts of the source protection authority, committee and local communities to ensure sources of drinking water are protected. Significant progress has been made in source protection and the province looks forward to continuing to work with you and all stakeholders to protect sources of drinking water.

Sincerely,

A handwritten signature in cursive script that reads "Chris Ballard".

Chris Ballard  
Minister

c: Paul Evans, Deputy Minister, Ministry of Environment and Climate Change  
Heather Malcolmson, Director, Source Protection Programs Branch, MOECC  
Simon Shankie, Project Manager, Lakehead Conservation Authority