

**MINUTES OF THE FIFTY-FOURTH MEETING OF THE
NORTH BAY-MATTAWA SOURCE PROTECTION COMMITTEE (SPC)
9:30 am, Tuesday, March 21, 2017
Held at the North Bay-Mattawa CA Boardroom, 15 Janey Ave North Bay**

1. Administration**a) Meeting called to order at 9:30 am****b) Attendance Record and Quorum (minimum number for quorum is 6 SPC members)**

Chair & SPC Members	Staff and Liaisons
Jeff Celentano, SPC Chair	Sue Miller, Manager DWSP (Project Manager)
Doug Brydges	Kurtis Romanchuk, Source Protection Specialist
Lucy Emmott	Sue Buckle, Supervisor Communications & Outreach
Beverley Hillier	
Dennis MacDonald	
John MacLachlan	
Randy McLaren	
Maurice Schlosser	
Roy Warriner	
George Stivrins (by teleconference)	

Regrets – Chuck Poltz, NBDHU Liaison
– Mary Wooding, MOECC Liaison

c) Declaration of Pecuniary Interest – none**d) Approval of Agenda**

Motion: That the agenda for the meeting be approved.

Moved by Dennis MacDonald, seconded by Lucy Emmott (**Resolution 54-01**)

Carried

e) Approval of Minutes of September 12, 2016 SPC Meeting

Motion: That the minutes of the September 12, 2016 SPC meeting be approved.

Moved by Doug Brydges, seconded by John MacLachlan (**Resolution 54-02**)

Carried

f) Correspondence - none**2. Chair's Remarks**

The SPC Chair thanked members for their attendance and touched on the following:

- Staff are continuing to support and monitor progress of plan implementation,
- There has been much turnover of provincial chairs, and
- A conference was held to help orient new chairs and project managers.

3. Review of Draft Annual Progress Report to MOECC.

The Source Protection Authority does not have to report to the MOECC until 2018, but we are doing 2017 as a trial run. The public facing report is based on a template, which was created by the MOECC and incorporated feedback from SPC chairs and Project Managers. The SPA approves submission of the Annual Report to the MOECC. The SPC has the option to make comments. The final Annual Report is to be submitted to the MOECC by May 1st.

Ministries do not have to implement their policies until July 1st, 2018. The NBMCA and MTO have completed their obligations with respect to the North Bay-Mattawa Source Protection Plan. The MNRF has completed its preliminary review but has not fully implemented all of their internal processes. The MOECC is in the process of reviewing existing prescribed instruments, including the conditions governing the Callander lagoons, to verify if the requirements are adequate for source protection.

The City of North Bay is updating its emergency response plan with respect to source protection. This is not a significant threat policy and is therefore optional, but the City has opted to implement it. The emergency response plan currently does not have conditions for what to do in the event of a spill and is focused more on who to contact. Implementing the policy as worded is therefore posing some challenges. The Project Manager will confer with City staff regarding the objective of the policy to ensure the vulnerable areas for source water are recognized by emergency responders.

NOTE:

Meeting interrupted by a fire alarm at approximately 9:50 am.

Building cleared by attending firefighters, no evidence of fire found.

Meeting reconvened at 10:10 am.

Policy SMF1 deals with threats posed by application of source material and fertilizer. It requires municipalities to prohibit significant threats from the application of agricultural source material (ASM), non-agricultural source material (NASM) and fertilizer using tools available to municipalities. The vulnerable areas involved are predominantly residential. Due to difficulties described below, an education and outreach approach has been used, which does not technically constitute a prohibition. Information has been posted on the actforcleanwater.ca website, which is linked from all the municipal websites.

Considering each type of substance, fertilizer is not a threat because there are not enough managed lands for it to be significant. NASM outside of an agricultural environment is considered waste, and is therefore covered by the waste disposal policy. That leaves ASM and only threats from pathogens would be significant. In reviewing O. Reg 267/03 under the Nutrient Management Act, the only type of ASM which would reasonably be applied in a residential area is manure. Once composted, manure is not considered ASM and does not pose a pathogen threat. The policy will be flagged for review at the first source protection plan review expected sometime after 2018.

With respect to Land Use Planning policies, the Village of South River has not yet completed its official plan amendment for source protection, but has implemented required changes in land uses through a zoning bylaw. The source protection amendment will be completed at the time of South River's official plan review.

There was a question with respect to the PFAS chemical in Lee's Creek and how it was missed in our original technical work. Detection of PFAS requires specific chemical analysis that is not part of water quality testing. The source protection plan focused on a list of prescribed threat activities. Application of firefighting foam containing PFAS is not a prescribed activity. The foam was used primarily in firefighter training activities at airports from 1950 to 2000 or so. The manufacture and use of products containing PFAS was curtailed following international efforts to have it banned around 2000. The only threat activity flagged with respect to airports was the use of de-icing chemicals. There was concern expressed that the current wording of the paragraph describing the PFAS condition in the Draft Annual Report could cause unwarranted public concern and should be revised.

Action: Project Manager to revise wording of paragraph describing PFAS condition.

Motion: That the Draft Annual Report be recommended to the SPA for approval.

Moved by Bev Hillier with the condition that the section on PFAS be reworded, seconded by Doug Brydges (**Resolution 54-03**)

Carried

4. Update on Review of North Bay Vulnerability Scoring through Technical Advisory Committee (TAC)

The NBMCA is conducting a review of the Energy East pipeline Trout Lake Site Specific Risk Assessment (SSRA), which identified that a spill within Doran Creek could affect water quality at the intake. The SSRA indicated that Lees Creek was not a viable transport pathway, due to separation distance from Doran Creek and intervening wetlands. It also did not consider the potential for a spill to be conducted to Lees Creek via roadside ditching. PFAS is reaching Trout Lake through Lees Creek, which demonstrates the existence of transport pathways which conduct contaminants from airport lands to Delaney Bay. These transport pathways need to be identified and assessed. The Trout Lake Technical Advisory Committee (TAC) is considering transport pathways in its current vulnerability review.

The TAC meets at the end of the month (March 31, 2017), and will make recommendations to the SPC. Any revisions to the SP Plan at this time would fall under section 34 of the Clean Water Act and therefore require the endorsement of the Municipal Council affected. The TAC has already identified the need to revise the IPZ to consider the Conservation Authority regulation limits to be in conformity with the Technical Rules.

Any revisions also require public consultation, the nature of which would be determined by the SPC after reviewing consultation requirements. The objective of consultation is to ensure that all affected stakeholders have the opportunity to comment and that their views can be fairly considered by both the SPC and the SPA in their decision-making process.

There was a question as to whether landowners or companies other than municipalities would be impacted by the changes being considered by the TAC. If the intake is scored at a higher level, from 0.8 to 0.9, policies such as those for Callander's intake would become applicable to North Bay's intake. If the intake score is increased from 0.8 to the maximum of 1.0, then septic systems within the intake protection zone may become subject to mandatory maintenance inspections. The existing gas station could also be identified as a significant threat.

Attention was drawn to the fact that the pipeline is federally regulated, as is the railway, and therefore there is no provincial jurisdiction to require compliance with SP Plan policies. Therefore, what is the point of identifying threats that cannot be effectively addressed? The opinion was

expressed that increasing responsibilities and regulations on transportation activities, particularly rail, could impose excessive costs. In contrast, it was also stated that the role of the SPC is to ensure all significant threats are addressed. The source protection manager clarified that the primary difficulty with roads is logistics, not a lack of jurisdiction, as highways are provincially regulated. As well, the National Energy Board is conducting hearings across Canada on the Energy East pipeline, so there is an opportunity to participate in that process. The vulnerability score of the intake sets the stage for future development potential, so it is important to flag vulnerable areas appropriately. Additional transport pathways through Lees Creek indicate that the intake is more vulnerable than previously thought. SPC members concurred that source protection is an active process and that aspects such as vulnerability scores must be revisited when things get missed.

5. Findings of ICA Erosion Study and Wasi Lake Paleo Discussion on Proposed Next Steps to Engage Municipalities and Landowners

Wasi Lake Paleo Study

The results of paleolimnology assessments for the Callander Issue Contributing Area were reviewed. The core sample shows that Wasi Lake has always been a turbid and cloudy lake, as it is very shallow and wind easily stirs up sediment. It appears that deforestation in the 1850s significantly increased phosphorous levels, likely due to exposed soils, destabilizing banks and transporting logs through watercourses. Inferred phosphorus levels dropped from 1850 to 1950 during the establishment of agricultural land uses. Farming at that time would have focused on hay production and grazing with relatively little plowing. However, there were a number of dairy operations. In the decades after 1950 and WWII there was substantial development, channelization of streams, draining of wetlands for farming, and construction of roads. Phosphorus levels increased substantially over the latter part of the 20th century. We have no details regarding the use of chemical fertilizers during that period.

In 2013, site visits to all farm properties in the ICA determined that very little phosphorous is applied to the land. That contrasts with agricultural practices in the watersheds in southwestern Ontario and Ohio contributing directly to Lake Erie.

Erosion and Runoff Mitigation Study

Collaborative research with Nipissing University includes ongoing turbidity monitoring and water quality sampling at the Wasi River gauge station at Edmond Road. High turbidity after storm events is associated with spikes in phosphorous levels. The sources were investigated in the Erosion Study.

The ICA Erosion Runoff & Mitigation Study was completed and found that poor municipal practices are contributing to increasing phosphorous loading. Culverts have been installed incorrectly and not in line with the channel flow, and bridge crossings are often too short causing upstream flooding and downstream scouring. It is believed that municipalities could improve their practices largely within current budgets.

Work Shop for Public Works Staff (April 12, 2017)

A workshop for public works staff is being held on April 12th to increase awareness, share recommendations for Best Management Practices related to roads, bridges, culverts and ditches, and discuss barriers to implementation.

Mitigating Land Use Changes and Channelization of Watercourses

Land management practices have also played a significant role. Converting wetlands to farmland and channelizing streams has increased erosion of stream banks during spring melt and following storms, a primary source of sediment loading. This could be mitigated somewhat by increasing upstream storage within the watershed through the introduction of ponds or wetlands, as well as retraining headwater streams to restore meanders where possible.

NBMCA has applied for funding through the Environmental Damages Fund to work with landowners to increase awareness of problems, and identify possible solutions. We have not yet heard whether funding will be granted. Every piece of property is unique and the person working the land is the most familiar with drainage details and where changes could be made. Ideally discussions should start prior to summer so that landowners can make observations over the coming growing season.

Beaver Management Workshop – May 11, 2017

Also, there is a Beaver Management Workshop being held on May 11th, 2017, which is open to the public. Cost is expected to be \$40 for the day. It includes a morning sharing the principles and demonstrating the use of easily fabricated equipment followed by a field trip to the adjacent Laurier Woods wetland. In terms of stream erosion, generally beaver dams are good because they hold back water and trap sediment, but they must be monitored to ensure they do not develop large breaks. There are ways to work with beavers to take advantage of their activities.

6. Next Meeting

The next meeting will be at the call of the Chair, expected to be held on either Monday May 15th or Tuesday May 16th at 9:00 am.

7. Adjourn

Meeting adjourned at 11:45 am.

Jeff Celentano, SPC Chair

Sue Miller, Project Manager

**MINUTES OF THE FIFTY-FIFTH MEETING OF THE
NORTH BAY-MATTAWA SOURCE PROTECTION COMMITTEE (SPC)
9:15 am, Tuesday, June 20, 2017
Held at the North Bay-Mattawa CA Boardroom, 15 Janey Ave North Bay**

1. Administration**a) Meeting called to order at 9:15 am****b) Attendance Record and Quorum (minimum number for quorum is 6 SPC members)**

Chair & SPC Members	Staff and Liaisons
Jeff Celentano, SPC Chair	Sue Miller, Manager DWSP (Program Manager)
Doug Brydges	Kurtis Romanchuk, Source Protection Specialist
Lucy Emmott	Sue Buckle, Supervisor Communications & Outreach
Beverley Hillier	Mary Wooding, MOECC Liaison
Dennis MacDonald	Chuck Poltz, NBPSDHU (arrived 10:30am)
John MacLachlan	Neil Gervais, MOECC (Source Protection Approvals)
Randy McLaren	
Maurice Schlosser	
George Stivrins	
Roy Warriner	

c) Declaration of Pecuniary Interest – none**d) Approval of Agenda**

Motion: That the agenda for the meeting be approved.

Moved by Dennis MacDonald, seconded by John MacLachlan (**Resolution 55-01**)

Carried

e) Approval of Minutes of March 21, 2017 SPC Meeting

Motion: That the minutes of the March 21, 2017 SPC meeting be approved.

Moved by Roy Warriner, seconded by Lucy Emmott (**Resolution 55-02**)

Carried

f) Correspondence - none**2. Chair's Remarks**

The SPC Chair thanked members for their attendance and touched on the following:

- MOECC conducted a new Chair orientation at the last Chair's meeting, including a mentor/buddy system, Jeff has been connected with the newly appointed Sault Ste. Marie Chair.
- MOECC underlined the continuing commitment to source protection, sending a clear signal to the SPC and Chairs that work under Source Protection will continue.
- Minister made presentation with respect to environment and provided insight as to thoughts, intentions, and tasks respecting environmental matters.
- The NBMCA hosted a half-day Municipal Conference, April 12, 2017, sharing findings of recent research into phosphorus loading in the Callander ICA and recommendations for public works staff to reduce erosion. Ed Gazendam of Water's Edge identified critical factors [such as culvert

alignment, length of bridges, road grading and ditch maintenance]. There was lots of productive dialogue and participants expressed support for another conference next year.

3. Expiration of Three SPC Members' Terms (by January 1, 2018)

The Project Manager advised that terms of one member from each sector would expire by January 1, 2018. [Note: After reviewing regulation and SP Authority Resolution 08-16, it turns out there is some flexibility around this date as long as all current SPC members' terms will have expired no later than January 1, 2020.]

The Source Protection Authority (SP Authority) is responsible for selecting and appointing SPC Members. The process this time is expected to be consistent with prior practice and with recommendations made in 2015 immediately prior to revision of the Committees Regulation (O. Reg. 288/07):

- Members are asked to advise the Project Manager (Sue Miller) by June 28, 2017 whether they would like to step down or remain;
- For sectors where all members would like to remain, lots will be drawn to select one member whose position will be advertised. The current member may reapply;
- New terms will be five years (North Bay-Mattawa SP Authority Resolution 08-16).

Dennis MacDonald, Transportation Representative, advised that he would step down.

Action: *SPC Members to provide notice of their intention to step down or remain to Project Manager by June 28, 2017.*

4. Review of North Bay Vulnerability Scoring

Source Vulnerability Factor Change

The Project Manager provided an overview of the process undertaken and recommendations (PowerPoint presentation attached to these minutes). A key recommendation would increase the current IPZ-1 vulnerability score from 8 to 10, to recognize additional potential activities as significant threats. The example activity cited was establishment of a landfill in the IPZ-1 less than 10 hectares in size, which would not be a significant threat in an area scored at less than 10.

Two draft reports were developed by a subcommittee of the Technical Advisory Committee (TAC) and provided to the SPC at the meeting:

1. City of North Bay Drinking Water Intake Vulnerability Scoring and Intake Protection Zone Delineation Technical Review, and
2. Implications of Amended Vulnerability Scoring City of North Bay Intake Protection Zones.

Vulnerable Areas and Scoring

The following recommendations were presented:

1. Extend the Intake Protection Zone (IPZ) to include Conservation Authority Regulation Limits in accordance with the Technical Rules [62 and 64].
2. Extend the IPZ-3 in the Lees Creek catchment (upstream of IPZ-2) beyond the 120 m setback to include the entire headwater area which has been found to transmit PFAS (perfluoroalkylated

substances), a class of environmentally persistent, water-soluble contaminants. This would flag the vulnerability of the airport industrial lands so that the City could set appropriate policies to prevent contamination from existing and future industrial activities.

3. Assess ditching within and near the airport for its potential to act as a Transport Pathway to Lees Creek.
4. Assess ditching along Highway 63 from the western intersection with Anita Ave to the height of land where runoff is directed to IPZ-1 for inclusion as a Transport Pathway. Similarly, any ditching along the rail line should be assessed for potential to transport spilled substances to Trout Lake.
5. The IPZ-3 area within a creek catchment would not be subdivided for the purpose of vulnerability scoring (i.e. all of Doran Creek and the 120 m adjacent setback would be in IPZ 3B)
6. Increase the area vulnerability factor (and therefore the vulnerability score) of the Lees Creek IPZ-3 to reflect the proximity of the watercourse to the intake and the potential for contaminant movement from its headwater area.

SPC Members wanted more time to review the information. The recommended changes would require amendment of the Assessment Report and review of some policies that would be applied to newly recognized significant threat activities. Any changes would require public consultation.

Amendments to an SP Plan can be initiated either by the SP Authority under s. 34 of the Clean Water Act, or by the Minister under s.36 during a Ministry scheduled plan review. A work plan that identifies any shortcomings of the current SP Plan and how they should be addressed needs to be submitted to the MOECC in November 2018. That would form the basis of a Ministry scheduled plan review.

The MOECC Liaison advised that recent changes to the Provincial Tables of Threat Circumstances may already require amendments to wording in the SP Plan. Other SP Areas/Regions face the same situation because their SP Plan wording identifies specific threat circumstances and vulnerable areas where threats apply, rather than using a more general wording such as “where the threat is or may become significant”.

Action: MOECC to provide summary slide deck of changes to threat tables.

Event Based Approach to Recognize Potential Impact of Large Volume Spills

As discussed in previous meetings, the hazard scoring approach was not developed to assess very large volume spills or the impact of extreme events. The rationale for using an Event Based Approach to assess the threat posed by a spill from the proposed pipeline was discussed. The MOECC indicated use of that approach for a Type D intake (inland lake) would require approval of the Director. Program staff mentioned that the Trout Lake Site Specific Risk Assessment (SSRA) of the Energy East pipeline project commissioned by TransCanada included spill modelling which demonstrated the potential to impair drinking water quality over the intake and that this might be an adequate to justify the delineation of an Event Based Area. Staff are working on this.

5. Implications of Amended North Bay Vulnerability Scoring

The implications of recommended changes were reviewed. Additional threats activities would be recognized as significant in IPZ-1, such as the storage of fuel in quantities over 2500 L and on-site sewage systems (septics). Some septic systems on Anita Avenue would become subject to Mandatory

Maintenance Inspections. The SPC would need to consider how to address the storage of fuel and whether existing TSSA requirements provide adequate protection.

Committee members requested specific details of what would be expected of them and their options.

Program staff advised that they are seeking feedback on the documents provided. Questions and comments should be emailed to Kurtis Romanchuk or Sue Miller, who will share those along with responses to SPC members.

Action: *SPC members to review documents and submit questions and comments to S Miller or K Romanchuk for compilation and sharing of responses. This exchange will support finalization of the draft documents.*

6. Transportation Threats Review (Highway and Rail)

Information was presented clarifying the regulatory structure and summarizing the spills history of the Ontario Northland Railway, which operates the line through the North Bay IPZ-1 adjacent to Trout Lake.

The following report was provided at the meeting:

Ontario Northland Railway Summary of Spills & Derailments and Applicable Regulations (SOURCE PROTECTION MEMORANDUM)

The transportation representative requested permission to share the material with members of the ONR, which was encouraged by the committee. Staff confirmed that PDF copies of all documents would be circulated following the meeting although some of these are still draft.

The Chair and staff confirmed that the highway transportation of hazardous substances will also be reviewed. Staff commented that an MTO commissioned value engineering study identified that the curve on Hwy 63 at Silver Lady Lane had too small a radius for the intended design speed of the road.

Action: *Staff to prepare a summary of available information pertinent to the SPC's understanding of the threat posed by highway transport of hazardous substances and possible options to address it, similar to what was compiled for rail transportation of hazardous substances.*

7. Energy East Pipeline – Update

The status of the Energy East proposed pipeline conversion was briefly discussed. The National Energy Board (NEB) review was halted after the recusal of panel members. There is no new timeline yet. The NBMCA has applied to be an intervener and is assessing the potential threats within its area of jurisdiction. NBMCA is also preparing a critique of the Site Specific Risk Assessment commissioned by TransCanada Pipelines Ltd to assess the risk posed to North Bay's source water.

It was also mentioned that the NEB is implementing a new consultation process with First Nations.

8. New Business and Wrap-Up

The next meeting will be at the call of the Chair, expected to be held in September or October 2017.

9. Adjourn

Meeting adjourned at 11:30 am.

Jeff Celentano, SPC Chair

Sue Miller, Project Manager

NOTES:

With respect to the vulnerability scoring review of the North Bay system (follow-up from Sept 2016 Resolution 53-02), a Technical Advisory Committee (TAC) was formed and met twice in March 2017. There was general consensus that the current intake vulnerability score of 0.8 was too low, but not on whether the recommended increase should be to 0.9 or to 1.0.

Preparation of recommendations was therefore delegated to subcommittee that included the consultant and NBMCA technical staff (Water Resources Engineer (EIT), Water Resources Specialist, Source Protection Specialist and SP Program Manager). The subcommittee reconsidered the technical work, implications of current scoring and comparison with similar type systems. Rather than increasing the vulnerability score of the intake, the consultant suggested that the threat activities of concern might instead be recognized by a change in the hazard ratings assigned to threat circumstances by the Province. The Provincial Tables of Threat Circumstances are currently under review. The report of the subcommittee to the SPC recommended increasing the vulnerability score of the intake to 1.0 to recognize certain threat activities that should be rated significant.

SPC members requested time to review the documents before making any decisions. The Program Manager confirmed that this meeting was the first of three budgeted for the fiscal period, so decisions could be deferred. Also, amendments to the Assessment Report and Source Protection Policies could be initiated either now by the SP Authority with a supporting resolution from North Bay Council (using s. 34 of the Clean Water Act), or deferred for consideration during a future review of the Source Protection Plan at the direction of the Minister. Both options would involve substantial public consultation. The latter process involves submission of a work plan to the Minister, which is due regardless in November 2018. The work plan needs to provide an assessment of the effectiveness of the current plan and whether changes should be considered.

One Member clarified that the reason protection of North Bay's source water is so critical is because 53,000 residents depend on it, not just that it is a sole municipal source. If the source became compromised it would be extremely challenging to provide an alternate supply for so many people.

The MOECC Liaison emphasized the importance of "ground-truthing" and consultation in the amendment process. Because Part IV policies were not included in the SP Plan, there is no local Risk Management Official available to inspect facilities and identify threats. Also, the SP Plan's wording identifies specific vulnerable areas where each policy applies. Therefore, any amendments to scoring would affect many of those details throughout the SP Plan and require revisions to such wording.

Program staff advised that the next step in a s. 34 process would be to go to the SP Authority, and if the changes were supported, endorsement would be sought from North Bay City Council. The public would be consulted on any proposed changes and the implications of those. Alternatively, the recommendations could be considered during the s.36 review.