

SPC MEETING MINUTES
MARCH 13, 2020
Meeting #75

The Source Protection Committee Chair, Dean Edwardson called the meeting to order at 10:00 a.m. on March 13, 2020 at the St. Clair Conservation Authority Boardroom. The following members and staff were in attendance;

Members

Dean Edwardson
Brent Clutterbuck
Cassandra Banting
Gary Eagleson
Pat Feryn
Carl Kennes
George Marr
Gary Martin

Earl Morwood
Carlos Reyes
Christa Sawyer
John Van Dorp
Joe Salter (Liaison)
Andrew Powell (HU Liaison)
Tea Pesheva, MECP

Regrets:

Hugh Moran
John Trudgen
Darlene Whitecalf
Mike Mortimer
Nich Seebach

Staff:

Jenna Allain
Deb Kirk
Brian McDougall
Steve Clark
Linda Nicks
Katie Ebel
Jason Wintermute
Luis Silva
Mark Peacock

1) Chair's Welcome

Dean Edwardson welcomed the committee and acknowledged a quorum was achieved. Introductions were given for the new MECP Liaison, Tea Pesheva. Chair Edwardson reported the sad news that John Trudgen a committee member passed away on Saturday, February 29th. A tree will be planted in John's memory on behalf of the committee and Source Protection Authorities.

2) Adoption of the Agenda

The agenda was approved.

Moved by Carl Kennes-seconded by Earl Morwood

“RESOLVED that the March 13, 2020 agenda be approved.”

CARRIED.

3) Approval of November 15, 2019, SPC minutes

Minutes of the November 15, 2019 meeting were approved with an edit to Item #8a. whether zebra mussels help filter algae. G. Eagleson referenced a study by Bains Lab showing that algae population is decreased while being consumed by zebra mussels.

Moved by George Marr-seconded by Brent Clutterbuck

“RESOLVED that the November 15, 2019 meeting minutes be approved as amended.”

CARRIED.

4) Delegations

None.

5) Declaration of Conflict of Interest

No conflict of interest was identified.

6) Business Arising from the minutes

None.

7) Business

a) 2019 Annual Report

A report was circulated titled “*Thames Sydenham and Region 2019 Annual Report*”. The purpose of the report is for the committee to review its contents and provide comments to the Source Protection Authorities about the extent to which, in the opinion of the Committee, the objectives set out in the source protection plan are being achieved. The information provided in the annual report is a high level reflection of the implementation of source protection plan policies over the previous calendar year. A supplemental report was also included containing more detailed information about implementation efforts collected through monitoring reports. John Campbell, Senior Information Management Analyst developed the Electronic Annual Reporting (EAR) program allowing implementing bodies such as municipalities and Provincial Ministries to submit information about their implementation efforts online.

This is the 3rd annual progress report prepared for the TSR, and it covers the 2019 calendar year (Jan. 1 – Dec. 31). It must be submitted to the Ministry of the Environment, Conservation and Parks by May 1st, 2020.

The implementation status was outlined for all polices in the SPP which includes: legally binding policies that address significant drinking water threat activities; non-legally binding policies that address significant drinking water threat activities; policies that address moderate-low drinking water threat activities; and policies not directly associated with addressing specific drinking water threats (i.e., transport pathways, general E&O).

Key Points of Presentation:

- 57 Risk Management Plans have been completed across the Region.
- A section 59 notice where a risk management plan was required was issued in Oxford County.
- 296 inspections on 248 properties were completed in 2019. There were no cases of non-compliance with RMPs.

- Prescribed Instruments, cumulative counts were shown. There were no previously issued PI's that were revoked as a result of source protection screening. There were no statements of conformity issued for the TSR in 2019.
- There are 18 municipalities within the TSR that are required to complete an Official Plan conformity exercise, with 9 having already completed this exercise. There are 22 municipalities that are required to complete a Zoning By-Law conformity exercise and only 2 have completed it.
- 157 Source Water road signs are now posted in this region.
- 249 septic systems located in 8 municipalities within the TSR require mandatory inspection every 5 years. Most municipalities have completed the first round of inspections and are beginning to plan for the next round. Oxford County and City of Stratford still need to complete inspections. Only 2 systems inspected in 2019 in Chatham-Kent.
- Under Drinking Water Issues the microcystin issue for the Chatham/South Kent and Wheatley drinking water systems will continue to be monitored.
- The nitrate issue in Wallaceburg will be removed as part of the Section 36 Amendment. A concern was raised about higher concentrations of nitrates in the Sydenham after a rain event from run off. The criterion in identifying an issue is for the concentration to exceed drinking water standards or to show an increasing trend at a particular municipal drinking water system.
- The nitrate issue in Woodstock is being reviewed as part of the s36 amendment.

The report summarizes that the Thames, Sydenham and Region is progressing well and on target, with the majority of the SPP policies being implemented. The report will be taken to the SPAs in April and submitted to the Ministry by May 1, 2020.

Draft SPC comments for inclusion in the 2019 Annual Report are as follows:

Overall, significant progress in the Thames-Sydenham and Region has been made since the Source Protection Plan came into effect. During the last four years of plan implementation, 100% of the policies in the plan that address significant drinking water threats have been implemented or are in progress. In 2019, many of our member municipalities reported success stories stemming from the implementation of source protection plan policies. These included voluntary best management practices being undertaken by business and property owners; a doors open event at a drinking water system that attracted over 300 attendees; and the development of a special training exercise for municipal emergency response staff which incorporated source protection information. Local Risk Management Officials in the Thames-Sydenham and Region have successfully managed 116 significant drinking water threats through the negotiation and establishment of 57 risk management plans in municipalities across the Source Protection Region since the Plan took effect. For the reasons outlined above, the Source Protection Committee feels confident in their assessment that implementation of the Source Protection Plans is progressing well/on target.

Recommendation

That the Source Protection Committee approves the SPC comments on the annual report as drafted and direct staff to submit those comments to the Source Protection Authorities for inclusion in the Thames-Sydenham and Region Annual Progress Report submission.

Moved by George Marr-seconded by Carl Kennes

“RESOLVED that the SPC approve the Annual Report as drafted and submit it to the Source Protection Authorities.”

CARRIED.

b) Section 51 Amendments (update)

The Committee was provided with a report at the November 2019 meeting regarding the Section 51 Source Protection Plan (SPP) and Assessment Report (AR) amendments to remove two municipal drinking water systems. Both the Highgate system in Chatham-Kent and the City of London wells are in the process of being decommissioned. These minor amendments have already been completed by staff will be posted online under s.51 of the *Clean Water Act* once confirmation of the decommissioning has been received. No Minister approval is required and an email notification will be sent to the SPC once the amendment has been posted.

c) Section 36 Amendments

Fuel:

Discussion:

TSR staff have reviewed the existing policies in the Thames-Sydenham and Region SPP for the above grade handling and storage of liquid fuel and determined that they can be updated to include the new circumstance for significant drinking water threats (SDWTs). There are currently six policies in the Thames-Sydenham and Region SPP that address the handling and storage of fuel as a SDWT. These policies use a variety of tools including Prescribed Instruments (2), Risk Management Plans (2), Prohibition (1), and Specify Action (1). These six policies were amended by staff and provided in the report for SPC review. These proposed amended policies, if approved, will become part of the Thames-Sydenham and Region's s.36 update.

In addition to the proposed changes to the Source Protection Plan policies, staff have reviewed the Assessment Reports to determine where updates may be required to reflect the changes to the Tables of Drinking Water Threats. While no changes to mapping have been identified, some areas of the text will need to be made. These changes will be provided to the Committee at a future meeting when broader changes to the Assessment Reports will be presented.

A question was asked about the definition of an abandoned fuel tank. An example was provided from Essex County where a number of greenhouses have closed but empty fuel tanks remain on site. The SPC requested that the word “abandoned” should be changed in Policy 2.43 and “*no longer being used*” as a suggested replacement.

Recommendation:

That the SPC approve the proposed amended fuel policies to be submitted to the MECP for early consultation.

Moved by Earl Morwood-seconded by George Marr

“RESOLVED that the Section 36 proposed amended fuel policies be submitted to MECP for early consultation.”

CARRIED.

Liquid Hydrocarbon Pipelines:

Discussion:

Liquid hydrocarbon pipelines have now become a prescribed drinking water threat under Ontario Regulation 287/07. TSR staff have reviewed relevant pipeline mapping to determine whether any new significant threats would be identified in wellhead protection areas as a result of this change. Liquid hydrocarbon pipelines were already identified as a local threat in event based areas in the TSR. Although there are pipelines that extend through some wellhead protection areas, the vulnerability scores of those areas are such that the pipelines would only constitute a low or moderate threat. **No new significant threats would be identified as a result of liquid hydrocarbon pipelines being added as a prescribed threat.**

Policies 2.53 and 2.54 of the Source Protection Plan currently address liquid hydrocarbon pipelines as a local threat in event based areas and were provided for the committee’s review. The intent of Policies 2.53 and 2.54 is to manage the risks to drinking water sources through spills response.

Given that no new significant threats have been identified, staff recommended the assessment report and source protection plan be updated to reflect that liquid hydrocarbon pipelines are now a prescribed drinking water threat rather than a local threat. Existing policies directed at pipelines should be updated to reflect this change, but the policy intent should remain the same.

A question was asked about prohibiting new construction of pipelines. Any new construction of pipelines falls under federal regulation. Source Protection Committees can only apply softer approaches to addressing this threat such as Education and Outreach and incorporating SP into emergency response planning. MECP is notified of any new pipelines. Some regions are engaging with these companies to create strategic action policies, but these would not be legally binding.

Recommendation:

That the SPC approve staff to move forward with amendments to the Source Protection Plan and Assessment Report to reflect that liquid hydrocarbon pipelines are now a prescribed drinking water threat rather than a local threat, without changing the intent of existing SPP policies directed at liquid hydrocarbon pipelines.

Moved by Carl Kennes-seconded by George Marr

“RESOLVED that the Section 36 Amendments to the SPP and Assessment Report for liquid hydrocarbon pipelines be a prescribed drinking water threat as recommended be accepted by the committee”

CARRIED.

SGRA Vulnerability Scores

Discussion

TSR staff have made the necessary changes to the Assessment Reports and Source Protection Plan to reflect the technical rule changes regarding SGRA's. A change log was attached specifying the sections, page numbers and specific changes that have been made.

SGRA Areas with a Score of 2, 4 and 6 will still exist but will be merged into a single SGRA with no vulnerability score. This will not result in the removal of any moderate to low drinking water threats as these are already captured by Highly Vulnerable Aquifer areas.

Change logs showing the specific changes to the documents were included in the SPC package for Upper Thames River Assessment Report only. The changes to the St. Clair Region AR and Lower Thames Valley AR are almost identical to the changes to the UTR AR, so were not included.

Final Recommendation:

That the SPC approve the proposed amendments to the Assessment Reports and Source Protection Plan to be submitted to the MECP for early consultation.

Moved by Brent Clutterbuck-seconded by John Van Dorp

“RESOLVED that the committee approve the recommendations of the Assessment and SPP proposed amendments to be submitted to MECP for early consultation.”

d) NASM Storage in the Township of Dawn-Euphemia

Steve Clark gave a presentation relating to the temporary farm storage of Non-Agricultural Source Material (NASMs) in the Township of Dawn-Euphemia. Several municipalities have expressed concern of bio-solid piles in open fields. Currently Provincial Agricultural reps and Environmental Officers have been investigating, and in some cases, have made recommendations to cover the piles.

The definition of a solid in relation to prescribed materials or nutrients is: having a dry matter content of 18 per cent, or more; or a slump of 150 mm, or less, using the (slump test) set out in Schedule 9 of Regulation 347 under the Environmental Protection Act. Generally NASMs are a beneficial source of organic matter, nitrogen, phosphorous and micronutrients. A few examples of final products are bio-solids, pelletized bio-solids and compost. The Canadian Food Inspection Agency (CFIA) regulates these products which are treated as fertilizer, and are managed through the Nutrient Management Act (NMA). Steve reviewed the management process and current regulations under the NMA for temporary field nutrient storage sites. He noted that all processes must also be consistent with the requirements of the Clean Water Act (CWA) and SPP policies where they apply.

Under the TSR SPP significant threat policy 2.23, the application of non-agricultural source material is prohibited in wellhead protection areas (WHPAs) with a vulnerability score of 10. Under Policy 2.24 Risk Management Officials shall not allow above grade temporary field nutrient storage sites (as defined under the NMA) in WHPAs with a score of 10. Under Policy 2.25 future NASM storage is prohibited in WHPAs where the vulnerability score is 10.

Many of these temporary NASM storage sites are not located in a vulnerable area, and subsequently only NMA regulations are applicable. Options for municipalities may include the development of special policy areas through zoning by laws or amendments

to Official Plans. Additional review and consultation with OMAFRA should occur to assess impact and threats to surface and groundwater systems.

The provincial Nutrient Management Act, 2002 and Regulation regulates the storage, handling and application of nutrients that could be applied to agricultural cropland. The objective is to protect Ontario's surface and groundwater resources. Part VIII, s. 82 86 of the Regulation outlines the standards for Temporary Field Nutrient Storage Sites. Any regulations must also be consistent with the requirements of the Clean Water Act and its policies where applicable. The provincial position is to ensure proper application methods are in place using best management practices. Nutrient management planning requires people to know what you have, know what you need and know how much you are applying. The debate continues with some objecting on the basis of environmental concerns while others see bio-solids as an alternate and viable source of nutrients. Some also see it as a solution and revenue stream for sources of municipal waste as well as growth for the fertilizer industry and an investment potential. For some this is simply a “Not In My Backyard” issue.

Discussion key points:

- Lambton planner suggested municipalities look at industrial type business and change zoning to come at it from a different angle.
- It was noted that there are concerns about the piles catching fire.
- Adelaide-Metcalf has 8 special polices areas where they were looking to store bio- solids and it went to committee. A one year moratorium was placed on zoning for the sites until further review can be done.
- Tile drainage mapping may not be accurate.
- For now SPC was provided this presentation as information and will monitor the situation.

e) Lake Erie Region SPC Request for Support to address over-application of winter maintenance chemicals

On December 12, 2019, the Lake Erie Region Source Protection Committee received a report (SPC-19-12-02 Winter Maintenance Chemicals: Challenges and Opportunities), and passed the following resolution:

AND THAT the Lake Erie Region Source Protection Committee direct staff to forward report SPC-19-12-02 to the Councils of the single, upper and lower-tier municipalities within the Lake Erie Source Protection Region, all Source Protection Committees, Ontario Good Roads Association, Association of Municipalities of Ontario, and Rural Ontario Municipal Association, to request resolutions in support of the report's recommended actions and forward the resolutions to the Ontario Minister of the Environment, Conservation and Parks, Ontario Minister of Transportation, Ontario Minister of Municipal Affairs and Housing and Attorney General of Ontario.

A report was included that provided an overview of the ongoing issue and implications of the over-application of winter maintenance chemicals, highlighting trends in the Lake Erie Source Protection Region, and includes recommended actions, including changes to the liability framework, increased requirements for winter maintenance of parking lots and changes to the Clean Water Act, 2006 framework to proactively protect municipal drinking water sources.

As per the Source Protection Committee's resolution, the Lake Erie Region asked for the Thames, Sydenham and Region Source Protection Committee's support of the report's recommended actions.

Moved by John Van Dorp -seconded by Brent Clutterbuck

“RESOLVED that the SPC support the Lake Erie Region recommended actions, including changes to the liability framework, increased requirements for winter maintenance of parking lots and changes to the Clean Water Act, 2006 framework to proactively protect municipal drinking water sources.

CARRIED.

Discussion:

Jenna Allain introduced a volunteer Luis Silva, a recent PhD graduate from Western University who has collected data on sodium concentration levels in all of the municipal drinking water systems in the TSR. The data was pulled from annual drinking water inspection reports. Linda Nicks noted sodium concentration is calculated for the raw water, and is only taken every 5 years. The Ontario Drinking Water standards for sodium concentrations are 200 mg per litre and 20 mg for people on low sodium diets. In most cases, our regions sodium concentrations are relatively low with all being less than half of the 200 mg standard.

Alternatives to salt can be used such as beet juice and brine but are more expensive. People are encouraged to take part in *Smart about Salt* training which is available and free. Topics of when to apply, how much and where salt is applied; parking lot versus roads are covered. Municipalities have *Salt Management Plans* and have automated equipment to adjust amounts and speed. This issue seems to be primarily in parking lots where liability is a concern. Public Health Advisories show some exceedances in our region relating to the low sodium diets standards (20 mg). Chloride concentration data is not available. If not sampling sodium at the right time it can be missed and there is a lag in the time of travel. Lambton Public Health issued a notice for high levels of sodium in PGMN wells and recommended that people with private wells in the Township of Warwick have sodium concentration testing done. Sampling once a year or every 5 years does not give enough data to see a trend. Salt level concentrations do seem to be rising,

but this is difficult to say definitively due to lack of data. Mark Peacock advised the committee that other training is available for salt application; LTVCA held sessions for municipalities as it related to Species at Risk.

f) 2019 Thames River Algae Bloom Presentation

Jason Wintermute gave a presentation on Microcystin in the TSR. Microcystin LR was listed as an issue in the TSR as per Technical Rule 115.1 under the CWA for the Wheatley and Chatham/South Kent intakes. Although an issue contributing area was on identified for this issue, a Microcystin monitoring policy (4.14) was drafted for the two intakes requiring further monitoring to evaluate the issue.

Essex Region SPA noted in their AR that issues identification work around Microcystin needed to be performed for their Lake St. Clair intakes. Microcystin was not considered for the Thames River as significant blooms had not occurred prior to 2017. The only drinking water systems related to the Thames River are the First Nations GUDI systems. Issues identification work was not done for the Lake St. Clair intakes, and no Issues Contributing Areas (ICA) was identified that may have extended up the Thames River. Federal drinking water standards for total Microcystin-LR are 1.5 µg/L and 0.4 µg/L for infants. The Provincial standard is 1.5 µg/L. The algal bloom on the Thames River in 2017 was first seen in Chatham in mid-August and continued being observed up to Thames Road/Currie Road into September, and up the UTRCA/LTVCA boundary in Delaware. The toxicity test from the bloom in September indicated the presence of the Microcystis-LR toxin at a concentration of 0.15 µg/L (Ontario Drinking Water Quality Standard is 1.5 µg/L). Sampling by MECP confirmed the bloom was mostly planktothrix. Another bloom was observed in 2019 from Chatham to Thamesville. The LTVCA staff notified MECP's Spills Action Centre, and various staff at MECP, ECCO, and researchers at the Great Lakes Institute for Environmental Research (GLIER) at the University of Windsor attended the site. Samples were taken at various locations.

Samples were analyzed for total microcystin and almost all samples had < 0.5 µg/L total microcystin. The concentration of 1.4 µg/L observed at Thamesville suggests concentrations in the river above the federal drinking water standard and the Thamesville ISCO (sampling station) is critical. Delaware Nation at Moraviantown has a GUDI well system 10 km upstream of the Thamesville ISCO and MECP Drinking Water staff have been made aware of the results at Thamesville so that they can follow up with the Delaware Nation.

Contributing factors for the Thames river blooms are a result of nutrient rich and warm waters, low flows and stagnant conditions. . The dominant cyanobacteria species in the blooms is not the same from year to year. Bloom protocols and the notification process has been established to include contacting water plant operators and health units when

blooms are observed, and the LTVCA will continue to monitor and sample blooms with other agencies.

8) Information

a) Articles & other items circulated in SPC packages:

- CELA Application for Review of CWA Regulations
- MECP Letter: CELA Application for Review of CWA Regulations
- CELA Letter to ADM Clean Water Act – March 4, 2020
- Video: Lake Erie Shoreline Erosion (<https://youtu.be/Pikb7XyCw1E>)
- Article: Is Canada's tap water safe
- Article: Boil water advisory issued for Tilbury, Wheatley area
- Article: Oneida Nation of the Thames tap water different than neighboring non-Indigenous communities
- Article: Oneida Nation of the Thames youth leader pushes for water treatment upgrades
- Article: January's record rain exposes London's dirty sewage secret, A CELA application for review of the CWA Regulations, a MECP letter relating to this CELA letter.

9) In Camera Session

None.

10) Other Business

None.

11) MOECP Liaison Report

Tea Pesheva, MECP Liaison provided an update on source protection activities happening at the Provincial level. Kelly Patona has been named as the new Director of the Ministry's Source Protection Programs Branch. All SPC Chairs have been appointed by the Province for 3-year terms. Phase II of the Technical Rules and Tables of Drinking Water Threats amendments are being reviewed by senior management and will be posted on the EBR for public consultation in the near future. Annual Reporting for Provincial Ministries went well, with all Ministries completing their reporting by the February 1st, 2020 deadline. A number of Section 34 SPP amendments were submitted and approved by the Minister in 2019. Section 36 amendment

orders have been approved for all SPR's with the exception of three Source Protection Authorities who just submitted their Section 36 workplans in November 2019. Transfer payment agreements are being worked on and Tea has been working with Jenna Allain on getting the TSR agreement finalized for 2020-2021. The Source Water information mapping tool is updated to display river discharge data and impacts of climate change. This does not replace the climate change tool. Tea offered to provide a demonstration of the mapping tool at a future SPC meeting.

12) Members Report

Andrew Powell – advised the committee of the work the Health Units are doing with respect to the coronavirus. A notice just circulated is advising that all events with 250 people or more should be cancelled. Andrew indicated that he would circulate this notice to the committee following the meeting.

13) Adjournment

There being no further business, the meeting was adjourned **at 1:40 p.m.**

Moved by John Van Dorp -seconded by Pat Feryn

“RESOLVED that the meeting be adjourned.”

CARRIED.

PLEASE NOTE: The next SPC meeting is scheduled for **June 12, 2020** at the St. Clair Region Conservation Authority office.