

Thames – Sydenham and Region Source Protection
Committee

Meeting Notice

Please be advised that a meeting of the Thames-Sydenham and Region Source Protection Committee has been called for the following time. Please confirm attendance with **Deb Kirk by email at kirkd@thamesriver.on.ca**

Meeting Date: November 18, 2022

Meeting Time: 10:00 am 1:00 p.m.

Meeting Location: ZOOM Virtual
Upper Thames River Conservation Authority Office

Join Zoom Meeting

<https://us02web.zoom.us/j/87644558482?pwd=eFY4cTlyaXNjVExRUXFYQWdUeUd6Zz09>

Proposed Agenda

1	Chair’s Welcome, Roll Call and Certification of Quorum Intro to Naghmeh Sharifi	10:00-10:10
2	Adoption of the Agenda	
3	Approval of June 3, 2022 SPC minutes	
4	Delegations (<i>none scheduled</i>)	
5	Declaration of Conflict of Interest	
6	Business arising from the minutes	
7	Business	
7a	Approved 2021 Director’s Technical Rules a.i) Editorial Changes a.ii) Waste a.iii) NASMS & Processed Organic Waste	10:10-11:00
7b	Future Systems	11:00-11:10
7c	CELA Report	11:10-11:20
8	Information- 8i. SPA Staff Report- J. Welker 8ii Article –PUC moving ahead with well decommissioning in Ridgetown 8iii Training for Municipal officials, mayors and councilors. https://www.watercanada.net/training-for-municipal-officials-mayors-and-councillors-at-walkerton-clean-water-centre/	11:20-11:40
9	In Camera Session (not planned)	
10	Other Business	
11	MECP Liaison report	11:40-11:50
12	Members Reports	11:50
13	Adjournment & Next Meeting	12:00



SPC MEETING MINUTES
JUNE 3, 2022
Meeting #80

The Source Protection Committee Chair, Dean Edwardson called the meeting to order at 10:00 a.m. on JUNE 3, 2022 via ZOOM. The following members and staff were in attendance;

Members

Dean Edwardson
Johnny Bowes
Brent Clutterbuck
Jarrod Craven
Pat Feryn
Vince Gagner
Carl Kennes

Gary Martin
Valerie M'Garry
Earl Morwood
Christa Sawyer
John Van Dorp
Catherine Eby (MECP Liaison)

Regrets:

Gary Eagleson
Joe Salter (Liaison)
Matthew Jauernig
George Marr
Karleen Sirna
Andrew Powell (HU Liaison)

Staff:

Julie Welker
Deb Kirk
Steve Clark
Katie Ebel
Ken Phillips
Mark Peacock

1) Chair's Welcome

Dean Edwardson welcomed the committee. After the roll call, he acknowledged a quorum was achieved.

2) Adoption of the Agenda

The June 3, 2022 agenda was approved.

Moved by Earl Morwood -seconded by Johnny Bowes

“RESOLVED that the June 3, 2022 agenda was approved.”

CARRIED.

3) Approval of March 25, 2022 SPC minutes

The March 25, 2022 previous meeting minutes be approved.

Moved by Carl Kennes -seconded by Earl Johnny Bowes

“RESOLVED that the March 25, 2022 meeting minutes were approved.”

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) Confirmation of Acting SPC Chair

All of the SPC Chairs appointment terms across the province end in August 2022. The Minister will be appointing/re-appointing and until this is completed, an interim Acting SPC Chair was elected. Earl Morwood expressed interest via email. During the SPC meeting members voted to approve this appointment.

Moved by John Van Dorp-seconded by Vince Gagner

“RESOLVED That the Source Protection Committee approved Earl Morwood as the interim Acting SPC Chair until the new appointments are completed by the Minister”.

CARRIED.

b) Section 36 Early Engagement

Julie Welker gave an update for pre-consultation for amendments to the Thames-Sydenham and Region Assessment Reports (ARs) and Source Protection Plan (SPP) as part of the order from the Minister of the Environment, Conservation and Parks under s.36 of the Clean Water Act.

At the March 13th, 2020 meeting the committee reviewed some of the proposed amendments to be included in the Section 36 update to the SPP and AR's. We have now moved into the consultation phase of the proposed amendments. A chart was included in the discussion paper outlining the comments received as part of the s.36 pre-consultation phase and the timelines of moving into the next phase with public consultation.

The section 36 Order issued by the Minister in 2018 required a workplan be developed outlining the steps for the comprehensive review and update to the Assessment Reports and Source Protection Plan.

3 Stages of consultation involve: Early Engagement with MECP, Pre-Consultation with implementing bodies and businesses/persons engaged in significant drinking water threat and Public Consultation with the public. Julie provided a table outlining the details of what was completed. John Van Dorp noted that some of the agricultural landowners who

received letters voiced concerns and may need further discussion/clarification. Most of the letters were distributed in Oxford County and Matthew Jauernig is the contact.

Submission of all the supporting documentation to MECP is scheduled for August and must be within 6 months of completion of consultation.

7ci) Salt Policies

Julie gave a presentation on the Implementation of the 2021 Amendments to the Technical Rules under the Clean Water Act, 2006. *Application of Road Salt, Storage of Road Salt, Storage of Snow and Handling and Storage of Fuel* were reviewed.

Application of Road Salt:

Application of road salt circumstances changed from:

- (2017) Circumstance: The road salt is applied in an area where the percentage of total impervious surface area, as set out on a total impervious surface area map, is 80 percent or more to
- (2021) Circumstance: The road salt is applied in an area where the percentage of total impervious surface area, as set out on a total impervious surface area map, is 30 percent or more in a WHPA (score 10).

The MECP guidance for road salt application notes that the amended rules provide the flexibility to the local authority to determine the grid or area size where road salt poses a risk to the quality of water. The term '*impervious areas*' used in the circumstances refers only to the areas where road salt is applied, i.e. does not include roofs or backyards.

A Desk Top analysis for Impervious Surface Area at 30% resulted in 5 systems being identified, ground truthing was done and paved vs dirt roads were considered. The RMOs completed a Threat Verification and examined size of lot and use. Compared approaches used by other Source Protection Regions/Areas - # of parking spaces and size of lot; exempt residential due to complexities of risk managing each dwelling were also looked at.

To reduce the risk to municipal drinking water sources from road salt application, where this activity is, or would be, a significant drinking water threat, municipalities, in collaboration with the Conservation Authority, the Ministry of Environment, Conservation and Parks and/or wherever possible other bodies, shall develop and implement an education and outreach program directed at the owners and/or occupants of such properties.

The program may include, but not necessarily be limited to, the provision of education material and information about the nature of the threat, how road salt can be handled in a manner so the activity cease to be or never becomes a significant drinking water threat.

Recommended Approach:

Education and Outreach was suggested for developing policies for Road Salt Application. It is a local decision with no provincial guidance. Upon review of the sites that met the 30% impervious surface criteria and accepting dirt lots and residential lots only 1 well (Stratford) was highlighted. The SPC agreed that Education and Outreach would make most sense as our region's policy tool.

Discussion: Johnny Bowes reported that in Stratford they have had discussions about using a salt/sand mix to apply on parking lots. Education and Outreach will provide help provide awareness and may encourage the use of alternatives to salt.

Storage of Road Salt

Storage of Road Salt circumstances changed from:

- (2017) Circumstances: Where salt is stored in an area where it is impacted by precipitation or surface runoff. The quantity stored is > 5,000 tonnes to
- (2021) Circumstances: Storage (exposed): 1) The quantity stored is more than 20 kg in IPZ (score of 9-10) and WHPA (score of 10) (storage in residential, small retail plazas, parking lots and small yards) Storage (Potentially exposed): 2) The quantity stored is more than 100 kg in IPZ (score of 10) and WHPA (score of 10) (storage at mall parking lots or other large parking lots or yards).

The MECP guidance on storage outlined that: The quantity thresholds were not suitable to identify significant risks in all situations. The past thresholds didn't account for many areas (parking lots, commercial plazas etc.) storing smaller quantities of road salt where road salt had been identified as a water quality concern/issue. The circumstances were amended for this threat to account for three types of road salt storage based on their exposure to precipitation.

- For exposed to precipitation or runoff, minimum quantity is 20 kg.
- For potentially exposed to precipitation or runoff, the minimum is 100 kg.
- For not exposed to precipitation, no changes.

It was left to the local authority to choose to address these using the same or different policy approaches/tools previously used to manage these threats using RMPs, specify action, and E&O. The current policy: 2.35 Prohibition is based on old rules of 5,000 Tonnes.

The suggested new policies are as follows:

1. Storage: Exposed (20kg) – *Education and Outreach.*

The quantity stored is more than 20 kg and less than 100 kg. IPZ (9-10) and WHPA (10). It was thought that it would be far too complicated to attempt to write RMPs for

every residential property or small business that depend on salt application to ensure members of a household or clients remain safe from falls on ice.

2. Storage: Partially exposed (100kg) – *Risk Management Plans*.

The quantity is more than 100 kg. IPZ (10) and WHPA (10) (storage at mall parking lots or other large parking lots or yards). The past thresholds didn't account for many areas (parking lots, commercial plazas etc.) storing smaller quantities of road salt where road salt had been identified as a water quality concern/issue.

3. Remove existing Prohibition policy, based on old thresholds that no longer exist.

Moved by Carl Kennes-seconded by Earl Morwood

“RESOLVED That the Source Protection Committee approves the recommendation policy change as outlined above for Storage of Salt.”

CARRIED.

Discussion: Broken salt storage bins were discussed and whether to use *prohibition* or a *RMP (Risk Management Plan)*. The SPC agreed it would be difficult and time consuming for the RMOs to monitor where there are broken salt bins and prohibiting these would be a less effective tool. Having a RMP will allow the RMO to work with the landowner to ensure containers are fixed or replaced and training the staff in using Best Management Practices can occur. Municipalities also communicates that containers are required to be maintained and replaced if there are issues. It is a fine balance of protecting the safety of people and liability concerns and water.

7cii Snow Policies

Snow Policy circumstances changed from:

- (2017) Circumstance: The snow is stored at or above grade. Total storage area is >1 hectare (10,000m²) to
- (2021) Circumstances: The infiltration or discharge of snowmelt from the storage of snow on a site where the predominant land use is commercial or industrial by any means other than a storm water drainage system outfall:
 1. The area upon which snow is stored <200m² (IPZ with score >9 and WHPA 10)
 2. The area upon which snow is stored >200m²<2000m² (IPZ with score >9 and WHPA 10)
 3. The area upon which snow is stored >2000m² (IPZ with score >8 and WHPA 10)
- A storm water drainage system outfall that serves a Snow Disposal Facility:
 1. The area upon which snow is stored >200m² (IPZ with score >9 and WHPA 10)
 2. The area upon which snow is stored >2000m² (IPZ with score >8 and WHPA 10)

Recommendation:

1. Editorial change to existing policy 2.36 On-Site Snow Storage – Management to include: where an ECA is not required and IPZ-1 (8). The current policy is solid but language needs to be added with amended Technical Rules and add the new IPZ-1 (8).
2. New policy – 2.35.1 On-site Snow Storage – Prohibition
The storm water drainage system outfall that serves as a snow disposal facility shall be prohibited so that it ceases to be or never becomes a significant drinking water threat.

Moved by Earl Morwood-seconded by Patrick Feryn

“RESOLVED That the Source Protection Committee approves the recommendation as outlined above for snow storage policies”.

CARRIED.

7cii. Fuel Policies

Fuel policies circumstances changed from:

- (2017) Circumstances: The storage of liquid fuel in a tank at, above or partially below grade. The fuel is stored in a quantity that is more than 2,500 Litres to,

- (2021) Circumstances: The storage of liquid fuel in a tank at, above or partially below grade. The fuel is stored or handled in a quantity that is more than 250 Litres, but not more than 2,500 Litres.

Recommendation:

No policy revisions necessary due to generic wording of policy

Moved by Valerie M’Garry -seconded by Carl Kennes

“RESOLVED That the Source Protection Committee approves that no revisions are required for the fuel policies.”

CARRIED.

Next Steps:

Once the policies are approved, the SPC can initiate a s.34 or wait until a s.34 is initiated for a new/expanded drinking water system. The SPAs are looking for more guidance on consultation process. Liquid Hydrocarbon pipeline policy requires a better harmonize policy across Ontario and editorial changes need to be done for: DNAPLS, the establishment, operation, maintenance of a system that collects, stores, transmits, treats or disposes of sewage (sub-threat categories) and the establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act (sub-threat categories).

The SPC agreed that the staff should begin the s.34 amendments when the policies are approved, starting sooner than later.

Moved by Valerie M’Garry -seconded by John Van Dorp

“RESOLVED That the Source Protection Committee agreed that staff initiate the s.34 amendments once the policies are approved.”

CARRIED.

Discussion: A list of items will be brought forward to the November SPC meeting that the SPC can start to review.

8) Information

8i. Oxford & Perth Children’s Water Festivals are taking place again.

Link: <https://www.childrenswaterfestival.ca/oxfordchildrenswaterfestival>

9) In Camera Session

None.

10) Other Business

None.

11) MOECP Liaison Report-

No report.

12) Members Report

Earl Morwood-Thanked Dean Edwardson for the great job he has done as SPC Chair to date.

Vince Gagner-noted the *Community Awareness Emergency Response (CAER) Code 5* program for spills in Sarnia is working well and did so during a recent ship spill. Details on the program can be found here: <https://lambtonbases.ca/emergency-preparedness/emergency-response/>

13) Adjournment

There being no further business, the meeting was adjourned **at 11:05 a.m.**

Moved by John Van Dorp -seconded by Vince Gagner

“RESOLVED that the meeting be adjourned.”

CARRIED.

PLEASE NOTE: Next SPC meeting will be scheduled in November 18, 2022.

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2022.11.18 7ai.

Cc SP Management Committee

Date November 18, 2022

Prepared By Julie Welker, Source Protection Coordinator

Re: 2021 Director Technical Rules – Editorial Changes

Recommendation:

THAT the SPC approve the proposed amended editorial changes to the Source Protection Plan, Assessment Reports and Explanatory Document as laid out in the approved 2021 Director Technical Rules before it is submitted to the MECP for early engagement.

Summary: Approved 2021 amendments to the Director’s Technical Rules (DTRs) include changes to the circumstances related to various threats that may result in significant drinking water threats (SDWT). As such, a review of the current SPP policies was conducted. The chart found below lays out those policies where simple editorial changes are required. Some will require an update to the threat enumeration table.

Background: According to the MECP’s Bulletin: Implementation of the 2021 Amendments to the Technical Rules under the *Clean Water Act, 2006*, The Act and the General Regulation 287/07 (O.Reg.287/07) establish a legal framework for drinking water source protection in Ontario. The Director’s Technical Rules are established under Section 107 of the Act and govern the assessment of risks to drinking water sources. The version of the 2021 Rules are the most recent amendments to the Rules, and aim to:

- Clarify terminology
- Clarify situations where a surface-water-based WHPA-E is to be delineated
- Clarify that the local threats provision intends to address activities that are not provincially or federally regulated and are area or community-specific
- Update the Tables of Drinking Water Quality Threats and integrate them into the Rules as one document

Technical Rule Threat #	TSR SPP Policy #	Name of Policy	Prescribe Instrument (PI) or Part IV of the CWA	Editorial Change	Justification
<i>Threat #1.8 Hauled Sewage</i>	2.12 and 2.13	Existing and Future Sewage Storage	PI	Add in ‘Temporary Storage’	The original threats table did not capture the risk associated with the

					stationary storage where the hauled sewage is stored temporarily by haulers where it is not generated or disposed.
<i>Threat #2.1 Sewage</i>	2.19 and 2.20	Industrial Effluent Discharges	PI	Add WHPA 10	Change in area of SDWT
<i>Threat #2.7 Sewage</i>	2.09	Sewage – Sanitary and Related Pipes	PI	Add IPZ - 9	Change in area of SDWT
<i>Threat #2.8 Sewage</i>	2.10	Existing Sewage Discharge	PI	Add ‘Sewage Lagoon and Sewage treatment plant process tank’	Change in circumstances
<i>Threat #7 NASM</i>	2.25	Handling and Storage of NASM	PI and Part IV	Add ‘Temporary field storage’	Suggestion from other PM
<i>Threat # 9.1 Fertilizer</i>	2.27-2.28	Existing and Future Commercial Fertilizer Storage	Part IV	Strike out ‘at existing facilities where it is sold or used’ and add in ‘On a site’	Circumstances have been simplified to focus on the sites where H&S of fertilizer may occur.
<i>Threat #11 Pesticides</i>	2.32 – 2.34	Handling and Storage of Pesticides	Part IV	Remove Pesticides List from Explanatory Document.	Mentioned in meeting
<i>Threat #11 Pesticides</i>	2.32-2.34	Handling and Storage of Pesticides	Part IV	Strike out ‘at a facility where they are manufactured, disturbed or processed’ and add in ‘on a site’.	Change in circumstances
<i>Threat #16 DNAPL</i>	2.45-2.47	Handling and Storage of DNAPL	Part IV	Include IPZ 9 & 10	The tables now recognize that DNAPL chemicals with a high toxicity rating may impact surface water bodies
<i>Threat #22 Liquid</i>		Conveyance of a liquid		Replace National Energy Board Act	To align with the name

<i>Hydrocarbon Pipeline</i>		hydrocarbon by a pipeline		with Canadian Energy Regulator Act	change in that Act in 2019.
				Replace WHPA F with WHPA ICA within SPP and AR	New naming convention for ICAs, the WHPA-F identifier is no longer valid

Recommendation

THAT the SPC approve the proposed amended editorial changes to the Source Protection Plan, Assessment Reports and Explanatory Document as laid out in the approved 2021 Director Technical Rules before it is submitted to the MECP for early engagement.

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2022.11.18 7aii

Cc SP Management Committee

Date November 18, 2022

Prepared By Julie Welker, Source Protection Coordinator

Re: Waste Generating Facilities (Threats 1.12 & 1.13)

Recommendation:

THAT the SPC receive the Staff Report for information; and

Further That the SPC endorse a policy approach which would differentiate between businesses who generate waste as a result of their businesses' primary purpose and all other waste generators; and

Further That existing threats associated with businesses who generate waste as a result of their businesses' primary purpose be managed through Risk Management Plans and amended Environmental Compliance Approvals and their future threats be prohibited; and all other threats addressed through Education and Outreach; and

Further That Source Protection Authority staff be directed to refine the policies related to waste stored at waste generating facilities and bring back to the Source Protection Committee for further review, prior to including it in an amendment to the Source Protection Plan.

Summary: The generation of subject, and non-subject wastes are new threat categories within the umbrella of "the establishment, operation or maintenance of a waste disposal site" under the *Clean Water Act*. These new categories were created through amendments to the 2021 Director's Technical Rules. The wastes and facilities included in these circumstances are diverse. Staff are recommending a proposed policy direction for the Source Protection Committee's consideration, prior to finalizing the policy wording.

Background: The Ministry of Environment, Conservation and Parks announced changes to the Director's Technical Rules on December 3, 2021. These changes include changes to the Circumstances wherein some activities can be deemed a Significant Drinking Water Threat.

Waste is one of the 22 activities outlined as a potential drinking water threat by the *Clean Water Act*; the recent amendments to the Director's Technical Rules have introduced two new subcategories of waste: those that generate "**subject waste**" (as defined in Ontario Regulation 347) and those that generate certain types of wastes that are exempt from the definition of subject waste (hereafter referred to as '**non-subject wastes**').

The changes also remove the existing 'small volumes' waste circumstances. The new circumstances are not tied to any specific volume of waste being generated.

Waste generation is the first of stages in the lifespan of waste considered by the updated Director’s Technical Rules, and it refers to short-term, temporary storage of waste at the site of its generation. It is followed by waste transfer and processing, and waste disposal.

Issues:

The previous Director’s Technical Rules focused more specifically on waste disposal and less explicitly on waste generation or waste transfer and processing. The updated Director’s Technical Rules specifically discuss waste from generation through disposal. The generation of waste as a threat activity is separated into **subject waste generators**, and **non-subject waste generators**.

Subject waste includes both liquid industrial waste and hazardous waste. Generators of subject waste are required to register under Ontario Regulation 347 (General – Waste Management) with the Hazardous Waste Information Network (HWIN). They do not require Environmental Compliance Approvals (ECAs) in most, if not all circumstances. The number of threats is not known at this time, as the HWIN is not an easily accessible or searchable resource for this purpose.

Subject waste is considered a significant drinking water threat when generated and temporarily stored in a WHPA with a vulnerability score of 10, and when stored above or partially above ground in an IPZ with a vulnerability score of 10.

Table 1. Circumstances for a Significant Drinking Water Threat (Waste Generation)

Circumstances	WHPA: Vulnerability Score for Above Grade Storage	WHPA: Vulnerability Score for Partially Below Grade Storage	WHPA: Vulnerability Score for Below Grade Storage	IPZ/WHPA-E: Vulnerability Score for Above Grade Storage	IPZ/WHPA-E: Vulnerability Score for Partially Below Grade Storage	IPZ/WHPA-E: Vulnerability Score for Below Grade Storage
Subject Waste	10	10	10	10	10	N/A
Non-Subject Waste	N/A	10	10	N/A	N/A	N/A

The **non-subject waste** generation threat circumstances that are listed in Table 1 and List 1 further defines the wide variety of wastes included in the threat category. These non-subject wastes are considered a significant drinking water threat only where they are stored below or partially below grade in a WHPA with a vulnerable score of 10. Most **non-subject waste** threats do not require Environmental Compliance Approvals (ECAs), but a few, such as motor vehicle servicing facilities, do require them.

List 1. List of Non-Subject Wastes that can be Significant Drinking Water Threat

- Motor vehicle servicing facilities
- Chemical waste from medical facilities (hospitals, doctor’s offices, dental surgeons, care homes)
- Batteries
- Waste processed and used at the same site. Excludes waste soil, PCB waste. Excludes using the waste for combustion or for application to land.

- Waste, other than waste from tires or waste soil, that is destined to be reused or resold off-site. Reuse cannot involve combustion or land application of the waste.
- Mercury waste
- Plastic and metal waste from recycling cables/wires
- Electronic waste
- Spent activated carbon/charcoal
- Various waste asphalt circumstances (road and building construction)
- Waste paint and related products

The circumstances as they are written in the new Director's Technical Rules do not specify a volume threshold for these wastes, so policies for all potential volumes are needed. Like the 'small volumes' wastes from the previous circumstances, the non-subject wastes include types of waste that can be generated in small amounts at a home or a business whose main purpose is not tied to that waste. However, it can also be generated at larger volumes at facilities where the waste is tied to their main purpose and operations.

There are many small businesses on the landscape in a WHPA with a vulnerability score of 10 that may generate non-subject wastes as a result of their primary operations, however, it is unlikely that they would all be threats after RMOs investigated them. It is unlikely, for example, that they all have basements, and that waste is stored in those basements (or other below grade storage).

Other businesses and homes may have small volumes of non-subject wastes (such as waste paint or batteries) stored below grade. We can refer to this as Personal Domestic Use.

Therefore, staff recommend the following policy direction to address waste generation threats:

- Create new policies which would ensure that Existing **subject waste generators** and **non-subject waste generators** who may have larger volumes of waste as a result of their businesses' primary purpose would be covered by amended Environment Compliance Approvals (where ECAs are required), and Risk Management Plans everywhere else. Future larger volumes where they would be a significant drinking water threat would be prohibited.
- E&O for small quantities (Personal Domestic Use)

Staff are of the opinion that this policy approach would protect municipal drinking water sources from the most substantial threats associated with the temporary storage of waste, while also not creating onerous obligations for homeowners or businesses which may have incidental volumes of waste for short periods of time. Staff have not yet identified policy wording which we feel would clearly differentiate between businesses which should receive education and outreach and those that should require amended Environmental Compliance Approvals or Risk Management Plans. The committee's insight on how to make this differentiation would be appreciated.

Recommendations:

THAT the SPC receive the Staff Report for information; and

Further That the SPC endorse a policy approach which would differentiate between businesses who generate waste as a result of their businesses' primary purpose and all other waste generators; and

Further That existing threats associated with businesses who generate waste as a result of their businesses' primary purpose be managed through Risk Management Plans and amended Environmental Compliance Approvals and their future threats be prohibited; and all other threats addressed through Education and Outreach; and

Further That Source Protection Authority staff be directed to refine the policies related to waste stored at waste generating facilities and bring back to the Source Protection Committee for further review, prior to including it in an amendment to the Source Protection Plan.

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2022.11.18 7aiii

Cc SP Management Committee

Date November 18, 2022

Prepared By Julie Welker, Source Protection Coordinator

Re: NASM (*threat # 6.1 and 7.1*) and POW (*threat # 1.2 and 1.9*)

Recommendation:

THAT the SPC receive the Staff Report for information; and

Further That the SPC provide direction on whether Processed Organic Waste should be added to already existing Non-Agricultural Source Material policies or add a new policy with the same approach (prohibition).

Summary: The Tables of Drinking Water Threats (Tables) have been merged with the 2021 Rules to simplify identifying the threat and associated circumstances. This new structure intends to allow for easier and more focused search to identify risks associated with each prescribed threat. To better align the threat categories with the provincial frameworks, new threat sub-categories have been added:

- The land application of POW
- The storage of POW and waste biomass

The language of the circumstances for NASMs has been changed to reflect the use of NASM on agricultural land (managed by a Nutrient Management Plan administered by OMAFRA) to distinguish it from the use of POW on non-agricultural land (managed by an Environment Compliance Approval administered by MECP).

Background:

Definitions

Non-agricultural source material (NASM) is defined in O. Reg 267/03 as materials produced off-farm, other than compost that are intended to be applied to land as nutrients (e.g. yard waste, food processing waste, pulp and paper biosolids, sewage biosolids, etc.). Whereas agricultural source material (ASM) is material produced on-farm that is intended to be used as nutrients (e.g. manure, washwater, other organic material, etc.). NASM is separated into three categories, and only certain elements of each category are considered to be a threat to drinking water.

Category 1 NASM only the material from non-farm herbivorous animals is considered to be a drinking water threat (e.g. manure). Both the storage and land application of this material in any quantity do not require the preparation and approval of a NASM plan. In these situations, if the activity is

identified as a significant risk, policy tools under the CWA (e.g. Part IV) shall be used to manage the risks.

Category 2 NASM refers to all material listed in Schedule 4, Table 2 of the O.Reg.267/03, e.g., organic waste matter containing no meat or fish and is derived from food processing at a bakery, etc. Both the storage and land application of all category 2 NASM require the preparation of a NASM Plan. The storage of all Category 2 NASM is always subject to the approval of the NASM Plan. In contrast, the land application of Category 2 NASM requires the approval of a NASM Plan if the concentration of regulated metals is exceeded according to Table 2 of Schedule 5 of O. Reg. 267/03. If it does not exceed this table, the NASM plan would be required, but it does not need OMAFRA approval.

Category 3 NASM refers to material listed in Schedule 4, Table 3 of O. Reg. 267/03. For example, pulp and paper biosolids, etc. Any storage or land application of Category 3 NASM is subject to the preparation of a NASM Plan for OMAFRA’s approval.

NASM plans are a prescribed instrument and are part of Nutrient Management Plans issued by OMAFRA for the application or storage of NASMs on agricultural land. For more information about NASMs and NASM plans, please refer to (<http://www.omafra.gov.on.ca/english/nm/regs/nasmqa.htm>)

Processed organic waste (POW) is defined in the Environmental Protection Act (EPA; O. reg 347) as waste that is predominantly organic in composition and has been treated by aerobic or anaerobic digestion, or other means of stabilization, and includes sewage residue from sewage works that are subject to the provisions of the Ontario Water Resources Act. POW is similar to a category 3 NASM.

Under the provincial management frameworks, the land application and storage of POW are subject to an Environmental Compliance Approval (ECA) under the Environmental Protection Act (EPA) when applied on non-agricultural land (i.e. subject to MECP approval). When POW is applied on agricultural land as NASM, land application and storage are subject to the Nutrient Management Act (NMA). Where POW is stored on an agricultural property for disposal and does not meet the category 3 land application requirements under the NMA, the POW storage and disposal would be subject to the EPA.

Significant Threat Circumstances in the Thames-Sydenham and Region – NASM and POW

In the Thames-Sydenham and Region, there are significant threat circumstances for both NASM and POW activities within the Intake Protection Zones but not within any of the Wellhead Protection Areas.

Table 1 – Comparison of significant drinking water threat circumstances for Processed Organic Waste (previously considered under NASM) between the 2013 and 2021 version of the Director Technical Rules.

2013 Circumstance	2021 Circumstance	Areas of SDWT
<p>Non-agricultural source material is applied to land and may result in a release to groundwater or surface water In a vulnerable area where:</p> <ul style="list-style-type: none"> - % Managed Land is 4-80% and Livestock Density is >1 NU/acre - % Managed Land is >80% and Livestock Density is >0.5 NU/acre 	<p>The processed organic waste is applied to a land located in a vulnerable area where:</p> <ul style="list-style-type: none"> - % Managed Land is 4-80% and Livestock Density is >1 NU/acre - % Managed Land is >80% and Livestock Density is >0.5 NU/acre or >1.0 NU/acre 	<p>WHPA – 10 IPZ – 1 (9, 8)</p>

<p>The application of any quantity of non-agricultural source material that contains materials from a meat plant or sewage works. The application may result in the presence of one or more pathogens in groundwater or surface water.</p>	<p>Land application of any quantity of processed organic waste. The application may result in the presence of one or more pathogens in groundwater or surface water.</p>	<p>WHPA – 10 IPZ – 1 (9, 8)</p>
<p>Non-agricultural source material is stored at, above or partially below grade The mass of nitrogen in the processed organic waste stored is more than 5 tonnes.</p>	<p>The processed organic waste or waste biomass is stored at, above or partially below grade. The mass of nitrogen in the processed organic waste stored is more than 5 tonnes.</p>	<p>WHPA – 10 IPZ – 1 (9, 8)</p>
<p>The non-agricultural source material contains material generated by a meat plant, and any portion of the material is stored at or above grade. A spill of the material or runoff from an area where the material is stored may result in the presence of one or more pathogens in groundwater or surface water.</p>	<p>The processed organic waste or waste biomass is stored on a site, and any portion of the material is stored at or above grade. The storage may result in the presence of one or more pathogens in groundwater or surface water.</p>	<p>WHPA – 10 IPZ – 1 (9, 8)</p>

Recommendation

THAT the SPC receive the Staff Report for information; and

Further That the SPC provide direction on whether Processed Organic Waste should be added to already existing Non-Agricultural Source Material policies or add a new policy with the same approach (prohibition).

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2022.11.18 7b

Cc SP Management Committee

Date November 18, 2022

Prepared By Julie Welker, Source Protection Coordinator

Re: Future System Changes

Recommendation:

THAT the SPC receive the Staff Report for information

Summary:

Thames-Sydenham and Region Source Protection Authority staff reached out to all municipalities within the region to get an understanding on what future changes may occur within the municipal drinking water systems. This will help with plan development and timing on when to initiate s.34 amendments to the Source Protection Plan and Assessment Reports.

System	Municipality	Changes	Timing	EA status	Notes
Ridgetown Wells	Chatham-Kent	Decommissioned wells/added new wells	2022 – Re-modeling	Don't need.	Will initiate a s.34 when all wells have been re-modelled...likely near end of 2022
Woodstock – Thornton Wellfield	Oxford County	Nitrate ICA delineation	2023	Possible EA	Hoping to do the work for an ICA in 2023 (depending upon funding)
Sebringville wells	Perth South	New Municipal well	EA 2022		New well possible for fall 2023
Tavistock	Oxford County	New well	EA 2022		Possible new well in 2024
Shakespeare	Perth East	New well	EA 2022		Possible new well. Need to expand system to include treatment facility to reduce arsenic and iron. Looking to create facility in different location and add reservoir for fire protection for community. This involves piping water from original well.
Petrolia	Sarnia	New intake	EA 2022	Currently	Ice issues close to

				underway	shore
Wallaceburg	Chatham-Kent			Possible EA in 2022	
Dorchester	Thames Centre	New wells	EA 2022	Currently underway with Stantec	Trying to determine if 1 or 2 new wells are needed

Recommendation

THAT the SPC receive the Staff Report for information

Thames – Sydenham and Region Drinking Water Source Protection Source Protection Committee Discussion Paper

Report to Chair and members
Thames – Sydenham and Region
Source Protection Committee

Agenda # 2022.11.18 7c

Cc SP Management Committee

Date November 18, 2022

Prepared By Julie Welker, Source Protection Coordinator

Re: CELA Report Summary

Recommendation:

THAT the Thames-Sydenham and Region Source Protection Committee receive the Staff Report for information

Purpose

To share information in this report to the Thames-Sydenham and Region Source Protection Committee.

Background

Twenty years after the release of the two reports of the Walkerton Inquiry, Canadian Environmental Law Association (CELA) assessed the status of the 121 recommendations made by Justice O'Connor. *Safe Drinking Water for All: A status update on Walkerton's legacy, 20 years after release of Inquiry Reports* evaluates whether the 121 recommendations continue to be implemented effectively or if there have been any failures to meet the original objectives.

This 100 page report has been broken down into 4 chapters. Chapter 1 – Background information; Chapter 2 – Current Legal Regime (overview of how drinking water protection is currently regulated in Ontario); Chapter 3 – Implementation of the Multi-Barrier Approach (evaluates the status of the implementation of the recommendations for each of the barriers); Chapter 4 – Coverage of Various Populations (explores how the current drinking water protection framework applies differently to various segments of Ontario's population).

Below is a summary of what was within the report:

- i. 65 of 121 recommendations have been considered
- ii. 3 are no longer applicable
- iii. 10 status can't be confirmed
- iv. 9 require further investigation
- v. 29 needs improvements
- vi. 5 no work has been done
- vii. Alarming, 6 of the 25 recommendations from part 2 that are scored "need improvement" relate to small systems and indigenous communities
- viii. Province should fund more water sampling
- ix. Gaps – some populations not covered by the CWA

- x. Smaller farms, such as the farm that was the source of contamination in walkerton are not required to follow these NMA rules
- xi. Training requirements – needs improvements
- xii. Best Practices – CELA states “voluntary, non-binding guidance is not adequate substitute for effective and enforceable protection of non-municipal sources of drinking water under the CWA...further without funding the support technical assessments or implement measures, the Best Practices do very little to provide meaningful protection for water sources.”

Recommendation

THAT the Thames-Sydenham and Region Source Protection Committee receive the Staff Report for information

PUC moving ahead with well decommissioning in Ridgetown

Author of the article:

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Article content

As a safeguard measure, Chatham-Kent's public utilities commission is moving ahead with municipal water well decommissioning in the Ridgetown area.

During last month's meeting, commissioners approved awarding a contract to decommission the Scane field wells.

However, another staff report, which didn't require approval and was received for information, came forward Thursday with further details about the bid.

Chatham-Kent's purchasing officer was consulted to obtain advice on how to proceed after no bids were received by the submission date, the report stated.

Tim Sunderland, the commission's general manager, said engineering consulting firm Aecom sought out a reputable company as a result.

Well drilling contractor Aardvark Drilling Inc. will perform the work for \$302,404. The company, which has performed work for Chatham-Kent in the past, also provides services to such centres as London, Waterloo, Ottawa, the York Region and the Peel Region.

Sunderland said the work involves four wells that are no longer needed.

"They're municipal water wells," he said. "As we do not need them anymore, once they're unserviceable, we want to decommission them properly to safeguard the aquifer.

"We have other wells over the next few years that will become unserviceable that will have to go through the decommissioning process as well, but we're working our way through our well system out there."

He said newest ones were drilled about five years ago, with the commission bringing them into production.

Chatham Coun. Marjorie Crew asked if there were similar wells elsewhere in the municipality that need to be decommissioned.

Sunderland told the commission the only municipal well system is in Ridgetown.