

## South Georgian Bay Lake Simcoe Source Protection Region

### Agenda

#### Source Protection Committee Meeting SPC-03-2025

Thursday, October 16, 2025

1:00 pm – 4:00 pm

To be held at the Churchill Banquet Hall located at 6322 Yonge St, Churchill

#### Members

Vacant, Chair

#### Municipal

Chris Gerrits, Jeff Hamelin, Katie Thompson, Michelle Flaherty, Michelle Jakobi, Tom Bradley

#### Economic/Development

Colin Elliott, John Hemsted, Amanda Kellett, David Ketcheson, Jessica Neto, Rick Newlove, David Ritchie

#### Public Sector

Geoff Allen, Peter Dance, Bob Duncanson, Stephanie Hobbs, Cate Root, Karen Koornneef

#### First Nations

Vacant

#### Liaisons

Karen Kivilahti, Simcoe Muskoka District Health Unit (SMDHU)

Don Goodyear, Lake Simcoe Region Conservation Authority (LSRCA)

Julie Cayley, Severn Sound Environmental Association (SSEA)

Jennifer Vincent, Liaison, Nottawasaga Valley Conservation Authority (NVCA)

Laura Collings, Ministry of the Environment, Conservation and Parks (MECP)

#### Staff

Bill Thompson, LSRCA

Mystaya Touw, LSRCA

Chloe Zhang, LSRCA

Kathy Hillis, LSRCA (minutes)

Ian Ockenden, NVCA

Sheri Steinginga, NVCA

Melissa Carruthers, SSEA

#### Guests

Shelly Cuddy, Durham Region

Jenee Wallace, SMDHU

Emily Goncalves, York Region

Gregory Meek, Durham Region

Lloyd Lemon, Durham Region

Sarah Lavoie-Bernstein, Kawartha CA

#### Regrets

Tom Kurtz, Public Sector

Jennifer Best, Municipal Sector

1. **Election of Acting Chair**

Lynn Dollin's appointment as Chair of the South Georgian Bay – Lake Simcoe Source Protection Region Source Protection Committee expired on August 20, 2025. The position requires an Acting Chair until such time as the Minister of the Environment, Conservation and Parks appoints a Chair, who must be appointed from Members of the Source Protection Committee.

2. **Welcome and Opening Remarks**

3. **Acknowledgement of Indigenous Territory**

4. **Declaration of Pecuniary Interest and Conflict of Interest**

5. **Approval of the Agenda**

**Pages 1-7**

**Recommended:** **That** the agenda for the Thursday, October 16, 2025 meeting of the Source Protection Committee be approved as presented.

6. **Adoption of Minutes**

**Pages 8-16**

**Recommended:** **That** the minutes of the Thursday, June 12, 2025 meeting of the Source Protection Committee be approved as circulated.

7. **Announcements**

a) Chair

8. **Deputations**

There are none

9. **Presentations**

a) A presentation by Shelly Cuddy, Durham Region and Lloyd Lemon, Lloyd Lemon Geoscience Consulting, regarding Staff Report SPC2.1 - Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment.

**Recommended:** **That** presentation a) and Staff Report SPC2.1 regarding the Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment be received for information.

b) A presentation by Bill Thompson, LSRCA, regarding Staff Report SPC2.2 – Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington.

**Recommended:** **That** presentation b) and Staff Report 2.2 regarding Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington be received for information; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be amended to apply to the Cannington Issue Contributing Area; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be further amended to prohibit the application or storage of agricultural source material or commercial fertilizer in the WHPA-E of the Cannington Issue Contributing Area; and

**Further That** the South Georgian Bay Lake Simcoe Source Protection Committee agree that the proposed amendments to the Source Protection Plan and the Durham Region chapter of the Assessment Report is advisable.

- c) A presentation by Shelly Cuddy, Durham Region, regarding Staff Report SPC2.3 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update.

**Recommended:** **That** presentation c) and Staff Report SPC2.3 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update be received for information.

- d) A presentation by Bill Thompson, LSRCA, regarding Staff Report SPC2.4 – Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System.

**Recommended:** **That** presentation d) and Staff Report SPC2.4 regarding Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Durham Region chapter of the Assessment Report is advisable.

- e) A presentation by Bill Thompson, LSRCA, regarding Staff Report SPC2.5 - Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update.

**Recommended:** That presentation e) and Staff Report SPC2.5 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Kawartha Lakes chapter of the Assessment Report are advisable.

- f) A presentation by Bill Thompson, LSRCA, regarding Staff Report SPC2.6 - Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township).

**Recommended:** That presentation f) and Staff Report SPC2.6 regarding Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township) be received for information.

- g) A presentation by Mystaya Touw, LSRCA, regarding Staff Report SPC2.7 – Update on Stormwater Approvals - EASR.

**Recommended:** That presentation g) and Staff Report SPC2.7 regarding Update on Stormwater Approvals - EASR be received for information; and

**Further That** the policy recommendations to add policy MON-7 and remove and replace policy SEWG(a)-2 be approved.

#### 10. Determination of Items Requiring Separate Discussion

(Reference Agenda Items on pages 5-7 of the Agenda)

#### 11. Adoption of Items Not Requiring Separate Discussion

**Recommended:** That the recommendations as set forth in the items not requiring separate discussion be approved, and staff be authorized to take all necessary actions to affect those recommendations.

#### 12. Consideration of Items Requiring Separate Discussion

#### 13. Other Business

#### 14. Closed Session

**15. Next Meeting and Adjournment**

The next meeting of the Source Protection Committee scheduled to be held on December 11, 2025, virtually via Zoom.

## **Agenda Items**

### **1. Correspondence**

There are none

### **2. Staff Reports**

#### **SPC2.1 - Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment Pages 17-22**

**That** presentation a) and Staff Report SPC2.1 regarding the Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment be received for information.

#### **SPC2.2 - Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington. Pages 23-30**

**That** presentation b) and Staff Report 2.2 regarding Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington be received for information; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be amended to apply to the Cannington Issue Contributing Area; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be further amended to prohibit the application or storage of agricultural source material or commercial fertilizer in the WHPA-E of the Cannington Issue Contributing Area; and

**Further That** the South Georgian Bay Lake Simcoe Source Protection Committee agree that the proposed amendments to the Source Protection Plan and the Durham Region chapter of the Assessment Report is advisable.

#### **SPC2.3 - Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update Pages 31-37**

**That** presentation c) and Staff Report SPC2.3 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update be received for information.

**SPC2.4 - Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System**

**Pages 38-39**

**That** presentation d) and Staff Report SPC2.4 regarding Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Durham Region chapter of the Assessment Report is advisable.

**SPC2.5 - Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update**

**Pages 40-48**

**That** presentation e) and Staff Report SPC2.5 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Kawartha Lakes chapter of the Assessment Report are advisable.

**SPC2.6 - Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township)**

**Pages 49-53**

**That** presentation f) and Staff Report SPC2.6 regarding Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township) be received for information.

**SPC2.7 – Update on Stormwater Approvals - EASR**

**Pages 54-58**

**That** presentation g) and Staff Report SPC2.7 regarding Update on Stormwater Approvals - EASR be received for information; and

**Further That** the policy recommendations to add policy MON-7 and remove and replace policy SEWG(a)-2 be approved.



## South Georgian Bay Lake Simcoe Source Protection Region

### Source Protection Committee (SPC)

#### Minutes of Meeting SPC-02-2025

June 12, 2025

The Chair called the meeting to order at 1:02 pm and Bill Thompson conducted the Roll Call.

#### Members Present:

Lynn Dollin, Chair

#### Municipal

Chris Gerrits, Jeff Hamelin, Katie Thompson, Michelle Flaherty, Michelle Jakobi, Jennifer Best, Tom Bradley

#### Economic/Development

Colin Elliott, Amanda Kellett, David Ketcheson, Jessica Neto, Rick Newlove, David Ritchie

#### Public Sector

Geoff Allen, Peter Dance, Stephanie Hobbs, Cate Root, Karen Koornneef

#### First Nations

Vacant

#### Liaisons

Jenee Wallace, Simcoe Muskoka District Health Unit (SMDHU)  
Julie Cayley, Severn Sound Environmental Association (SSEA)  
Don Goodyear, Lake Simcoe Region Conservation Authority (LSRCA)  
Jennifer Vincent, Liaison, Nottawasaga Valley Conservation Authority (NVCA)

#### Staff Present

Bill Thompson, LSRCA	Ian Ockenden, NVCA
Mystaya Touw, LSRCA	Sheri Steinginga, NVCA
Kathy Hillis, LSRCA (minutes)	Melissa Carruthers, SSEA

#### Guests

Shelly Cuddy, Durham Region	Jay Park, Region of York
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#### Regrets:

Bob Duncanson, Public Sector  
John Hemsted, Economic/Development  
Tom Kurtz, Public Sector

## 1. Welcome & Opening Remarks

The Chair introduced new Member Tom Bradley and new Nottawasaga Valley Conservation Authority Liaison Jennifer Vincent.

## 2. Land Acknowledgement

The Chair recited the Acknowledgement of Indigenous Territory.

## 3. Declaration of Pecuniary Interest and Conflict of Interest

David Ketcheson advised he works on many projects in the Source Protection Region and will advise the Committee if any of the discussions involves any of the projects he is involved with.

## 4. Approval of Agenda

Moved by: Rick Newlove

Seconded by: Peter Dance

SPC-07-25      **Resolved That** the agenda for the June 12, 2025 meeting of the Source Protection Committee (SPC) be approved, with the addition of New Business item a) Rope Drinking Water System. **Carried**

## 5. Adoption of Minutes

Ian Ockenden provided an update on the discussion regarding Base Borden in Presentation b) as it relates to Staff Report SPC2.1 – Annual Report on Plan Implementation (to December 31, 2024), as Ian reached out to his contact at Base Borden to see if they are doing anything to protect the Well Head Protection Area. It was confirmed that none of the 22 listed Threats come into play with the Mill Street well. The Township of Essa advised they will be looking to expand that well, and Ian will continue discussions with Base Borden staff to ensure no Threats arise during this development.

Moved by: Cate Root

Seconded by: Geoff Allen

SPC-08-25      **Resolved That** the minutes of the April 10, 2025 meeting of the Source Protection Committee be approved as circulated. **Carried**

## 6. Announcements

a) Lynn Dollin's term as Chair ends in August of this year. She has expressed interest in serving another term but has not yet been advised if this is confirmed.

## 7. Deputations

There were none.

## 8. Presentations

- a) A presentation by Mystaya Touw, Lake Simcoe Region Conservation Authority regarding Official Planning & Source Water: An Update.

Link to the presentation – [Official Planning & Source Water: An Update](#)

## QUESTIONS AND COMMENTS

Geoff Allen: Melissa held a realtor session in 2024, and since then four real estate boards joined to become one association. Should we be doing more realtor sessions as the onus should be on the realtor to discover property issues before selling a property?

Melissa requested that this go back to source protection authority staff to discuss but agrees if there is a large increase in membership, we should go back to them.

Colin Elliott: Do municipalities need to be reminded to update their official plan, and why do they find it difficult to do every five years?

Lynn advised that the latest Bill approved requires less OP review, so every five years is not required. Jennifer Best advised that you may be in the middle of doing an update when provincial policy statements change resulting in additional review. Hiring consultants is expensive so the intention is to wait until changes stabilize before updating. New Tecumseth has had their update put on hold as the province is not happy with their growth projections. Lynn advised that often an updated OP gets appealed by a number of sources. Simcoe is still waiting on the province to approve Amendment 7, which has impact on the lower tier municipalities. There will be no new legislation during the current break in Parliament.

David Ketcheson: If source water protection usurps most other bylaws and legislation, is there a way to inform municipalities of the requirement for this?

Jennifer Best advised that a lot of planners are aware of this due to the source water protection work done for many years, so it is often at the forefront of screening. It is a matter of continuing education. Bill advised that if there is a conflict between policies, the more protective policy applies. Bill confirmed that we will continue education at municipalities. Chris believes most municipalities are aware and would be surprised and disappointed if municipalities did not have circulation for source water protection review as part of their practices.

David Ketcheson: Is any work being done with the Law Society? Are we having problems with land transfers with our risk management plans and not having them updated properly and efficiently when there are land changes?

Bill advised we have not worked with the legal community but can add this to the workplan. Geoff advised that lawyers are selling Title Insurance rather than doing a Title

Search. You have to specifically ask for a Title Search to be done. Katie advised that risk management officials are not always aware when a land transfer happens but become aware if they come forward for a permit. Tom advised transfers are caught in Section 59 but we are not always catching the business changes. Getting out into the community catches some other transfers by seeing a change in business ownership, and then have made the changes to the risk management plans accordingly.

Colin Elliott: Explained the issue to Doug Downey, Governor General, but he did not seem all that interested. Colin also explained the issue to the Ontario Real Estate Board, and they were not interested in disclosing water issues until after the property has been sold. They are not required to disclose water restriction issues. One example was a woman who bought a house and barn with the intention of only housing six horses, but it was restricted to three. She did not do anything wrong, but rather was not properly informed.

Lynn commented that we are not sure how to help potential homeowners other than continuing to educate and encourage people to do their due diligence.

David Ketcheson: Foresees one of the potential biggest problems in the future is if someone land transfers and there is a prohibition clause for future use, is there a problem with a new business owner being told they cannot conduct their business in that location because they are now a future user and not the existing owner?

Bill confirmed that yes, there is a problem there. Often risk management officials often are not aware of the change in business until operations have already begun, which may have a large impact on the business.

Geoff Allen: Advised that realtors have a duty of care that should be upheld, and if they are not doing their due diligence then they should not have their job.

Cate Root: Thinking to the insurance that the lawyer takes out to avoid a Title Search, does the owner have the ability to go back to that lawyer for not conducting a proper search?

Geoff advised that clients are encouraged to have insurance for this, but purchasers are encouraged to do a Title Search. Katie advised that Barrie works closely with the Economic Development group, and they do a lot of pre-screening with businesses looking to relocate to inform their property decisions.

Moved by: Rick Newlove

Seconded by: David Ketcheson

SPC-09-25      **Resolved That** presentation a) regarding Official Planning & Source Water: An Update be received for information. **Carried**

b) A presentation by Bill Thompson, Lake Simcoe Region Conservation Authority regarding item SPC2.3 - Policies for the storage of waste biomass.

Link to the presentation – [Policies for the Storage of Waste Biomass](#)

## QUESTIONS AND COMMENTS

Katie Thompson: Please clarify if it is solid and liquid waste for all classes of biomass or just pulp and paper? The end product was at one time going to the landfill or field, but what if it goes to another disposal location, would this be captured by the other waste policies? Liquid agricultural like plant base would not just be solid material?

Bill has assumed that items a)-d) in his presentation are solid waste. If it is going for destruction, it would fall under waste biomass. If it is going to be a source of nutrients, it becomes either processed organic waste or non-agricultural source material. The regulation does not speak to liquid agricultural material so Bill believes it would not be solid waste.

David Ketcheson: Also believes that liquid wastes are specifically designed under Ontario Regulation 347 separate to solid waste, and agrees with Bill's interpretation that waste biomass would represent a solid that meets the slump test requirements laid out under Regulation 347.

Peter Dance: Supports the more revised recommendation presented by Bill. If there are already regulations on the manufacturing side, would another approach be to refer to less than and greater than 5 tonnes, to narrow the scope to be chasing real threats?

Bill clarified that the mass reported is mass of nitrogen, not mass of waste, so generally double the numbers to get the amount of waste. Based on this clarification Peter retracts his comment about less than versus more than 5 tonnes. Bill advised that how to approach the Threat is up to the Committee.

Cate Root: Medications to be disposed of would be risky to water supplies, so are they not included? Some medications may be plant based.

Bill confirmed anything pharmaceutical that is not plant based falls into another category. If stored onsite prior to disposal, the Source Protection Committee policies take effect. A prohibition has been put in place for large amounts of things like mercury. If it is plant based and has a lot of materials that are considered a Threat, then the Ministry decides which Prescribed Instrument Policy gets implemented, on a site-by-site basis.

Moved by: David Ketcheson

Seconded by: Peter Dance

SPC-10-25      **Resolved That** presentation b) and Staff Report SPC2.2 regarding Policies for the storage of waste biomass be received for information; and

**Further That** the Source Protection Committee adopt the recommended new policies as outlined on slide 10 of the above-noted presentation to manage the threats of the storage of waste biomass; and

**Further That** staff be directed to incorporate the new policies in the draft amendment to the Source Protection Plan, Under Section 36 of the Clean Water Act. **Carried**

c) A discussion regarding the role of the Source Protection Committee.

## **QUESTIONS AND COMMENTS**

Bill advised that the role of the Committee is one of supervision, to monitor implementation of the Source Protection Plan. There are two requirements of the Committee under the Act: i) comment on the Annual Report; ii) amend the Plan from time to time to make sure they are current and make adjustments as the Committee sees fit. The role is not to approve new wells or comment on the new wells, but ensure the correct policies are in place to deal with the new wells. Are there other things the Committee would like to do, as individuals or as a Committee, that staff can support?

Peter Dance: Some things are missing from the program, and this may be the chance to advise the Ministry of this. The program is not complete because there is no way to update wellhead protection areas which is fundamental to the program. With road salt, chlorides and sodium, it is not a good fit in the system unless all of Lake Simcoe is in a intake protection zone. May have a role in being more active in our sector representation. If we are representing the sectors, is there a bit more progressive role to be put in place there?

Bill advised that Conservation Authority staff presented on road salt to the Board of Directors. We continue to monitor road salt in the Lake Simcoe jurisdiction. In recent monitoring in Newmarket, we found levels in the Western Creek that are above oceanic salt levels. The New Hampshire model protects contractors from liability if the contractor takes State recognized training and can prove they follow State best practices. We are part of a Freshwater Roundtable that is pushing for the adoption of the New Hampshire model in Ontario. MECP is interested but the provincial government as a whole has not expressed interest. Peter commented that if you have too many parking lots you will still have levels that are too high, and that the New Hampshire model does not address this problem. How does the Committee push this new role for the Committee with the Ministry? Lynn advised that it is covered by source protection when it is in an Issue Contributing Area.

David Ketcheson: If our policies are not properly protecting source waters due to the salt issue, then there should be a role for the Committee on salt.

Lynn and Bill advised we are limited on what we can do under the Clean Water Act. The Act is not very good at dealing with non-point source contaminants.

Amanda Kellett: The annual review focussed on the policy implementation in terms of what has been adopted and updated, and less on what is effective as it pertains to road salt, quantity, WHPA-Qs, etc. There may be a role here. There may not currently be a policy tool to pull the policy is not achieving the intended goal, but maybe it can be raised as an issue with the Ministry, especially where they are high-valued targets.

Bill advised that bringing the environmental response as effectiveness indicators into the Annual Report is a good idea. The requirements to sample water quality in municipal wells, depending on the parameters is regularly infrequent, so seeing a trend with data collected once every five years takes a long time. Compounding this with groundwater systems is groundwater responds slowly so there will always be a lag between policy implementation and environmental change. There is a middle ground to bring information about behaviour change. Bill will take the suggestion back to do this on a more regular basis. Lynn indicated that it is hard to measure something that has been done proactively as how do you measure change has been prevented. How do you quantify the expense now against future measures of protection.

Rick Newlove: Are there any measures of salt affecting the quality of drinking water?

Bill advised that some municipalities that take drinking water from the Lake have long-term concerns about increasing chloride concentrations and the affects on human health. We have the Issue Contributing Area in Barrie associated with groundwater, and an Issue is put into place when a parameter is increasing to a point that the groundwater is considered contaminated from the point of human health. We are not at a point where Lake Simcoe itself is an issue. We are a long way from it directly affecting health, but we are trending toward it becoming a problem.

Cate Root: Is water budget something in our role, in making sure there is sufficient water available of good quality.

Bill advised that if policies need to come into place to ensure quantity of water needs to be protected, the Committee's policies would come into place. Water budgets will be reviewed by staff every five years. Currently they are okay, with the exception of the Willow Creek water budget in Midhurst which is being updated.

Geoff Allen: Education and Outreach is really important. Is there more this Committee or conservation authorities can do to get the message out there? People need to be aware of the issues. The Committee's role should include how to support conservation authorities and their work.

Lynn has constituents who move to the area who complain that they do not go to bare roads, but once the issue is explained they are okay with it.

Lynn Dollin: They have not had a Chair's meeting for more than a year. We are in a highly developed area, and we are not busy. What are the Committees who have one or two drinking water systems doing?

Bill advised this Committee is not rare in feeling disengaged, and in fact some Committees only meet once per year to approve the Annual Report. We could be doing more to bring in guest speakers at meetings. Lynn would love to see the salt presentation. Lynn also thought the risk management official session in May 2024 was very engaging.

David Ketcheson: Most interested to hear the risk management officials concerns about the policies that the Committee has put in place and how can they be made better, and what areas should the Committee look at.

Rick Newlove: Where municipalities have events along the water, should we have a staff and Committee manned booth for Education and Outreach?

Bill advised that the per diem rate for Committee Members is in the budget to attend these types of things.

David Ketcheson: Recommends Committee Members share ideas with Bill, and that Bill consolidates them and bring them back.

Moved by: Amanda Kellett

Seconded by: Jessica Best

SPC-11-25      **Resolved That** the discussion on the role of the Source Protection Committee be received for information. **Carried**

## 9. Determination of Items Requiring Separate Discussion

No items were identified under items requiring separate discussion.

## 10. Adoption of Items Not Requiring Separate Discussion

Item SPC2.1 was identified under items not requiring separate discussion.

Moved by      Rick Newlove

Seconded by: Colin Elliott

SPC-12-25      **Resolved That** the recommendations as set forth in the items not requiring separate discussion be approved, and staff be authorized to take all necessary actions to affect those recommendations. **Carried**

## 11. Consideration of Items Requiring Separate Discussion

There were no items requiring separate discussion.

## 12. Other Business

- a) Rope Drinking Water System updated requested by Cate Root – Melissa provided two updates as follows:
  - i. The Township of Tay had expressed interest in doing exploratory work about switching from a surface water system to a groundwater system. They confirmed there are wells in the ground but not the type of wells, so Melissa is assuming that they are test wells, not full production wells as they try to determine if there is enough flow there to support the system.
  - ii. As part of the Section 36, because we are not sure if they are switching to a groundwater system, we are moving ahead with looking at increasing the Vulnerability Score for that intake protection zone. This work has been completed and is included as part of that Section 36 amendment.

Cate requested that we keep an eye on it.

## 13. Closed Session

None.

## 14. Next Meeting and Adjournment

Moved by: David Ritchie

Seconded by: Geoff Allen

SPC-13-25     **Resolved That** the next meeting of the Source Protection Committee scheduled to be held on Thursday, October 16, 2025 from 1-4 pm at the Churchill Banquet Hall; and

**Further that** the June 12, 2025 meeting of the Source Protection Committee be adjourned at 2:40 pm **Carried**

## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.1

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Bill Thompson, Project Manager, South Georgian Bay - Lake Simcoe Source Protection Region

**Date:** October 16, 2025

**Subject:** **Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment**

### Recommendations:

**That** presentation a) and Staff Report SPC2.1 regarding the Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment be received for information.

### Purpose of Staff Report:

The purpose of this Staff Report is to provide the Source Protection Committee an overview of the findings of an evaluation of the observed increased dissolved nitrate concentrations in municipal wells in Cannington. The evaluation has resulted in a proposed change to the Wellhead Protection Areas (WHPA) for the Cannington Drinking Water Supply with the reinstatement of a more robust WHPA-E in the Arena Wellfield and introduction of WHPA-ICA for nitrate in the Arena and Gravel Pit Well Fields.

### Background:

The Regional Municipality of Durham (Durham Region) owns and operates the municipal water supply system and municipal well fields servicing the community of Cannington, in northern Brock Township. The Cannington Drinking Water Supply currently includes five active wells, two wells being commissioned, one above ground standpipe (reservoir), and approximately 13.6 kilometres of water main, serving approximately 2,100 people (R.V Anderson Associates Inc., 2018). The Cannington Drinking Water Supply consists of two well fields: the arena well field on the east side of town, and the gravel pit well field on the west side (Figure 1).

The Assessment Report Chapters for the Cannington Water Supply were updated in 2023, following work to develop two new municipal wells (MW9 and MW10); remove former well MW6 (decommissioned in 2016) and to reflect the findings of updated numerical modelling to delineate wellhead protection areas and vulnerability scores (S.S. Papadopoulos &

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Associates Inc. (SSP&A) and GeoProcess Research Associates (GeoProcess), 2021a and 2021b). WSP Canada Inc. (2021) provided support to update the enumeration of significant drinking water threats associated with the WHPA as revised in 2021.

As part of the responsibility of operating the municipal drinking water system, Durham Region conducts extensive water quality monitoring of the municipal water supplies and a network of monitoring wells. An increasing trend of dissolved nitrate concentrations was first detected in MW8 in the Arena Well Field in approximately 2015 (Figure 2). The increasing dissolved nitrate concentrations were near or greater than  $\frac{1}{2}$  the Ontario Drinking Water Quality Standard of 10 mg/L for nitrate in 2015 and 2016. Dissolved nitrate concentrations in MW8 reduced to less than  $\frac{1}{2}$  the Standard in 2017 when the adjacent well MW4 was removed from service. Dissolved nitrate concentrations in MW8 remained less than the  $\frac{1}{2}$  Standard until mid 2021. Durham Region staff monitored concentrations closely through 2021 and 2022 and then removed MW8 from regular service beginning in 2023. Dissolved nitrate concentrations at MW8 decreased when MW8 was out of service but increased again when MW8 was temporarily returned to service.

Durham Region contracted Lloyd Lemon Geoscience Consulting in 2023 to prepare an Updated Drinking Water Issue Evaluation for the Cannington Drinking Water System. This work included a thorough investigation of the potential source(s) of nitrate and to provide direction toward effective management of dissolved nitrate concentrations in the Cannington Drinking Water System. An initial report was prepared in September 2024 and a revised report to address comments provided by the Ontario Ministry of Environment, Conservation, and Parks was prepared in August 2025.

The technical work to investigate the causes of increased dissolved nitrate concentrations in the municipal wells of the Cannington Drinking Water Supply (Figure 1). This work included: detailed assessment of potential sources of nitrate near the municipal wells; detailed review of stratigraphy and pathways of groundwater flow; investigation of potential correlations between observed nitrate concentration trends and precipitation, pumping patterns; and seasonal groundwater elevations.

Each of the production wells demonstrate evidence of a trend of increasing concentrations of dissolved nitrate to varying degrees. The most urgent situation is observed at MW8 in the Arena Well Field, where dissolved nitrate concentrations approached the Ontario Drinking Water Quality Standard for nitrate in 2023 (as shown in Figure 2) and exceeded the Standard in 2024 and 2025. This situation required temporary shutdowns of this well and current operations are managed based on the observed nitrate concentrations. Wells in the Gravel Pit Well Field also show an increasing trend that can be extrapolated to reach the Standard for nitrate as early as 2035. Although increasing trends of nitrate

## Item SPC2.1

concentration were observed at MW3, projections of the increasing trends would likely only reach half the Standard by 2045 and therefore this well was excluded from the identified WHPA-ICA for nitrate.

The use of commercial fertilizers is believed to be the primary source of nitrate concentrations in the Arena Well Field. The occurrence of nitrate in MW8 appears to be influenced by efforts to provide shallow drainage in cultivated fields and the existing surface water drainage course that is believed to be a transport pathway through normally protective soil strata. Nitrate concentrations observed at MW8 may also be affected by changes in hydraulic conditions in the shallow bedrock layer that is hydraulically connected to and responds when the Arena Well Field is operated.

A WHPA-E was established for the Arena Well Field by GENIVAR in 2010. The WHPA-E was originally established due to identified conditions of ‘groundwater Under the influence of surface water’ at the now decommissioned MW6 (east of MW8). This WHPA-E was recommended for removal by WSP (2021) following removal of MW6. Review of the LLGC (2024) report by MECP identified that the Technical Rules related to establishment of a WHPA-E had changed in 2021 such that conditions at MW8 now justify inclusion of a WHPA-E. A new WHPA-E delineation has been prepared by LLGC (2025) and includes consideration of a tile drainage area that was not identified in the GENIVAR (2010) report (Figure 3).

The sources of nitrate to the Gravel Pit Well Field appear to be more related to regional use of nutrients within a predominantly agricultural area.

The conclusion of the technical work reported by LLGC (2025) is that there is justification to declare dissolved nitrate as a Drinking Water Issue for the Arena Well Field and the Gravel Pit Well Field. This will include establishing a WHPA-ICA (nitrate) for the Arena Well Field to consist of the WHPA-C area and the WHPA-E as shown in Figure 4. The identified WHPA-ICA for the Gravel Pit Well Field consists of the WHPA-C area.

Review of the groundwater recharge pathways and monitoring data support that the much larger WHPA-D for both Well Fields is not likely to directly contribute to the observed dissolved nitrate concentrations and therefore the identified WHPA-ICA includes the WHPA-A, WHPA-B, WHPA-C (and WHPA-E in the case of the arena wellfield).

LLGC (2025) updated the number of activities that would be a significant threat for nitrate in the identified WHPA-ICA. The methodology and approach taken for the threats assessment exercise followed that of GENIVAR (2010), adjusted to account for more recent changes to the Technical Rules (MECP, 2021). The identification of Significant Threats included those which had been previously identified and managed by the Risk

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Management Official or Provincial Ministries. Significant Threats are identified for seven of the prescribed drinking water threat activities (primarily those related to agricultural land use or private residential sewage servicing).

For the Arena Well Field, there are now 806 threat activities that have potential to be significant drinking water threats on 191 land parcels, of which 176 are residential. The number of threat activities that remain to be addressed by the Risk Management Official or Provincial Ministries for the Arena Well Field is 806.

For the Gravel Pit Well Field, there are now 130 threat activities that have potential to be significant drinking water threats on 27 land parcels of which 22 are residential. The number of threat activities that remain to be addressed by the Risk Management Official or Provincial Ministries for the Gravel Pit Well Field is 103.

### Issues:

The Assessment Report provides the technical foundation to the Source Protection Plan. It evaluates the vulnerability of municipal drinking water systems to contamination and identifies potential significant drinking water threat activities to which policies in the Source Protection Plan will apply.

As part of the technical work to incorporate the new WHPA-E and WHPA-ICA for nitrate, a comprehensive assessment of potential sources of nitrate near the municipal wells was undertaken, which included a detailed review of stratigraphy and pathways of groundwater flow; investigation of potential correlations between observed nitrate concentration trends and precipitation, pumping patterns; and seasonal groundwater elevations. The resulting capture zones, the threats assessment, mapping of managed lands, and livestock density has been completed by Lloyd Lemon Geosciences (2025).

It is the role of the Source Protection Committee and Source Protection Authority to address drinking water quality Issues when they are identified, including adding an Issue Contributing Area to the Assessment Report, to ensure adequate protection is provided to these vulnerable systems.

Staff are of the opinion that the changes to the WHPAs and assigned vulnerability scores will improve the ability of Durham Region to protect the water quality of the Cannington Wells. Establishing a WHPA-ICA for nitrate at the Arena and Gravel Pit Well Fields will provide an opportunity for Durham Region to manage the use of nitrate within this area and provide additional protection to the groundwater in this aquifer.

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### Summary:

The Regional Municipality of Durham has identified an Issue with dissolved nitrate in the wells at their Cannington Drinking Water System, and have identified a WHPA-E and two Issue Contributing Areas which are believed to be the primary source of this nitrate.

### Recommendations:

**It Is Therefore Recommended** presentation a) and Staff Report SPC2.1 regarding the Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment be received for information.

### Prepared by:

Bill Thompson, Project Manager, South Georgian Bay - Lake Simcoe Source Protection Region

### Attachments: 1

## Attachment 1

### References

GENIVAR Inc., 2010, Assessment of Drinking Water Threats – The Regional Municipality of Durham.

GeoProcess Research Associates Inc / S.S. Papadopoulos & Associates, Inc., 2021b, Groundwater Model Construction and Calibration Report, Groundwater Modelling Update to Meet Source Protection Requirements, Region of Durham/ORMGP.

GeoProcess Research Associates Inc / S.S. Papadopoulos & Associates, Inc., 2021a, Cannington Municipal Water Supply System – Local Wellfield Characterization Reporting. Groundwater Modelling Update to Meet Source Protection Requirements, Region of Durham.

Lloyd Lemon Geoscience Consulting (LLGC), 2024, Updated Drinking Water Issue Evaluation – Cannington Drinking Water System. (as submitted for technical review)

Lloyd Lemon Geoscience Consulting (LLGC), 2025, Updated Drinking Water Issue Evaluation – Cannington Drinking Water System.

R.V. Anderson Associates Limited, 2018, Provision of Additional Water Supply Capacity for the Community of Cannington in the Township of Brock – Class Environmental Assessment Addendum – Final. Prepared for the Regional Municipality of Durham.

WSP, 2021, Assessment of Drinking Water Threats, Cannington Water Supply, The Regional Municipality of Durham.

### Source Protection Committee Meeting SPC-03-2025

#### Staff Report Number: SPC2.2

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Bill Thompson, Project Manager, South Georgian Bay Lake Simcoe Source Protection Region

**Date:** October 16, 2025

**Subject:** **Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington**

#### Recommendations:

**That** presentation b) and Staff Report 2.2 regarding Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington be received for information; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be amended to apply to the Cannington Issue Contributing Area; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be further amended to prohibit the application or storage of agricultural source material or commercial fertilizer in the WHPA-E of the Cannington Issue Contributing Area; and

**Further That** the South Georgian Bay Lake Simcoe Source Protection Committee agree that the proposed amendments to the Source Protection Plan and the Durham Region chapter of the Assessment Report is advisable.

#### Purpose of Staff Report:

The purpose of this Staff Report SPC2.2 is to provide the Committee an overview of the policy implications of the newly identified WHPA-ICA for dissolved nitrate in the community of Cannington (Durham Region), to provide some options for addressing newly identified threats, and to seek Committee endorsement on a policy approach.

#### Background:

As described more fully in Staff Report SPC2.1 regarding Cannington Drinking Water Supply Nitrate WHPA-ICA and WHPA-E Assessment, the Regional Municipality of Durham has observed a concerning increase in dissolved nitrate concentrations in their Cannington Drinking Water System in recent years. The well which has the highest concentrations has

## Item SPC2.2

temporarily been taken out of service, however the contaminant issue appears to be widespread through the aquifers supporting that drinking water system.

Under the Sourcewater Protection Technical Rules, drinking water Issues are to be identified when either: 1) a contaminant in a well exceeds the Ontario Drinking Water Quality Standard, or 2) concentrations are increasing in such a way that the Standard is predicted to be exceeded. Based on the Region's monitoring data, both of these tests have been met at the Cannington Drinking Water System.

The Technical Rules further specify that when an Issue is identified, an Issue Contributing Area is to be added to the Assessment Report, which is intended to identify the area within which activities are believed to be contributing to the contamination. Within that Issue Contributing Area, any low or moderate drinking water threats associated with the contaminant in question are to be addressed through Source Protection Plan policies. Staff report SPC2.1 describes the Issue Contributing Area, including a newly identified WHPA-E, which is believed to be associated with the source of this contamination.

### **Issues:**

Currently, policies addressing activities that could affect water quality in the Cannington Drinking Water System only apply to those areas with a vulnerability score of 10 (as illustrated in red on Figure 1 of Staff Report SPC2.1). With the larger newly identified Issue Contributing Area, and the rule that low and moderate threats are to be addressed through policy, the number of potential threats increases substantially. Under the currently approved Assessment Report, 57 significant drinking water threats have been identified (51 of which have been addressed through policy implementation). With the newly identified Issue Contributing Area, this number is estimated to increase to 953.

Other Issue Contributing Areas exist in our Source Protection Region, for activities related to TCE, chloride, sodium, and nitrate. For those other systems, policies have been developed specific to their Issue Contributing Areas to provide an additional level of protection for these vulnerable aquifers.

Particularly relevant for Cannington is an existing Issue Contributing Area, and associated policies, for nitrate in the Lafontaine Drinking Water System in Tiny Township. These policies may be appropriate in Cannington as well. However, because those policies specifically reference the Lafontaine ICA they would not automatically apply in Cannington, unless amended.

Appendices to this staff report include copies of policies that apply within the Lafontaine Issue Contributing Area, with respect to the application and storage of agricultural source material (Appendix A) and the application and storage of commercial fertilizer (Appendix

## Item SPC2.2

B). In brief, these policies prohibit the application or storage of either commercial fertilizer or agricultural source material in areas with a vulnerability score of 10, and require their management elsewhere in the Issue Contributing Area, either through a Risk Management Plan or a Prescribed Instrument (in this case, a Nutrient Management Plan or Nutrient Management Strategy). In comparison, policies for non-Issue Contributing Areas do not prohibit the application of commercial fertilizer, nor the existing storage of fertilizer or agricultural source material, but instead require it be managed through a Risk Management Plan or Prescribed Instrument. The application of agricultural source material is prohibited, but only within the WHPA-A; in the case of the Cannington Drinking Water system, the area with a vulnerability score of 10 extends beyond the WHPA-A.

Staff recommend amending the policies developed for the Lafontaine Issue Contributing Area, to allow them to apply in the Cannington Issue Contributing Area as well. Not only would it provide a greater level of protection to the aquifer in Cannington, but it would ensure that policies applied to landowners in Issue Contributing Areas are equitable, regardless of which municipality they live within. It is worth noting as well that there is some indication that water quality at the Lafontaine Drinking Water System is improving, which suggests that the policies in Appendix A and B are effective.

However, the WHPA-E identified as part of the Issue Contributing Area in Cannington has no equivalent at the Lafontaine Issue Contributing Area, so policy applicability in a WHPA-E was likely not considered when those policies were developed. A WHPA-E is to be identified when there is evidence of a connection between surface water and an aquifer which supports a municipal well, and can be associated with a pathway for rapid contamination of that well by incompatible activities on the landscape. Because the WHPA-E represents an area of heightened risk, staff recommend amending the policies further to specify that areas within the WHPA-E be treated as those areas with a vulnerability score of 10. Specific policy recommendations are included in Appendices A and B, underlined in red text.

Policies selected by the Source Protection Committee to address threats in this newly identified Issue Contributing Area will be added to the Source Protection Plan, by amending the Plan under section 34 of the *Clean Water Act*. Under that amendment process, once the Committee has decided on a policy approach, and agrees with the Source Protection Authority that the amendment is advisable, pre-consultation with affected landowners and implementing bodies will be undertaken, followed by public consultation and submission to the Ministry for approval. It is estimated that submission of a final amendment may occur by summer 2026.

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### Summary:

Durham Region has observed increasing concentrations of dissolved nitrate at many of the wells at the Cannington Drinking Water System, necessitating the identification of an Issue and associated Issue Contributing Area. Policies in place to address a similar Issue at the Lafontaine Drinking Water System could be applied to the Cannington Drinking Water system to ensure further contamination is limited. If amended, policies could extend to apply an extra level of protection within the WHPA-E as well.

### Recommendations:

**It Is Therefore Recommended That** presentation b) and Staff Report 2.2 regarding Policy Options to Address Nitrate Threats in the New WHPA-ICA (Nitrate) in the Community of Cannington be received for information; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be amended to apply to the Cannington Issue Contributing Area; and

**Further That** policies FERT(ICA)-1 through FERT(ICA)-4 and ASM(ICA)-1 through ASM(ICA)-4 be further amended to prohibit the application or storage of agricultural source material or commercial fertilizer in the WHPA-E of the Cannington Issue Contributing Area; and

**Further That** the South Georgian Bay Lake Simcoe Source Protection Committee agree that the proposed amendments to the Source Protection Plan and the Durham Region chapter of the Assessment Report is advisable.

### Prepared by:

Bill Thompson, Project Manager, South Georgian Bay - Lake Simcoe Source Protection Region

### Attachments: 2

## Appendix A

Policies which apply to the application and storage of agricultural source material in the issues contributing area: nitrate for Georgian Sands and Lafontaine (section 16.4.1 of the Approved Source Protection Plan). Recommended amendments are in underlined red text.

Policy Number	Tool	Legal Effect	Implementer	Existing /Future	Policy Text	Policy Monitoring Requirement
ASM(ICA)-1	RMP	MC	RMO	E / F	The existing and future storage and application of agricultural source material to land is designated for the purposes of Section 58 of the Clean Water Act and therefore requires a risk management plan where <u>the activity occurs outside the WHPA-E and</u> the Vulnerability Score is less than 10 and the activities are or would be significant drinking water threats. The risk management plan, at a minimum, will be based on contemporary standards, reflect appropriate nutrient management practices, and ensure the activity ceases to be or does not become a significant drinking water threat.	MON-6
ASM(ICA)-2	Pro	MC	RMO	E/F	Where the Nutrient Management Act does not require an approval, the existing and future storage and application of agricultural source material to land is designated for the purposes of Section 57 of the Clean Water Act, and is therefore prohibited <u>in the WHPA-E or</u> where the Vulnerability Score is 10, and the activities would be a significant drinking water threat.	MON-6

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Policy Number	Tool	Legal Effect	Implementer	Existing /Future	Policy Text	Policy Monitoring Requirement
ASM(ICA)-3	PI	MC	MAFA	E/F	Where the existing and future storage and application of agricultural source material to land is in an area where the activity is or would be a significant drinking water threat and the <b>activity occurs outside the WHPA-E and</b> the Vulnerability Score is less than 10, and the activity requires an approval under the Nutrient Management Act, MAFA shall ensure that the nutrient management plan or strategy that governs the storage and application of agricultural source material to land incorporates terms and conditions to ensure that the activity ceases to be or does not become a significant drinking water threat.	
ASM(ICA)-4	PI	MC	MAFA	E/F	The existing and future storage and application of agricultural source material to land is prohibited <b>in the WHPA-E or</b> where the Vulnerability Score is 10 and the activities would be a significant drinking water threat.	MON-3

## Appendix B

Policies which apply to the application handling and storage of commercial fertilizer in the issues contributing area: nitrate for Georgian Sands and Lafontaine (section 16.9 of the Approved Source Protection Plan). Recommended amendments are in underlined red text.

Policy Number	Tool	Legal Effect	Implementer	Existing /Future	Policy Text	Policy Monitoring Requirement
FERT(ICA)-1	RMP	MC	RMO	E/F	<p>The existing and future application, handling and storage of commercial fertilizer to land is designated for the purposes of Section 58 of the Clean Water Act, and therefore requires a risk management plan for those not phased in under the Nutrient Management Act, where <u>the activity occurs outside the WHPA-E and</u> the Vulnerability Score is less than 10. The risk management plan, at a minimum, will be based on contemporary standards and shall require:</p> <p><u>Application</u></p> <ol style="list-style-type: none"> <li>1) all fertilizers to be applied using best agronomic practices based on the advice of a certified crop advisor;</li> <li>2) that soil tests (NPK) be conducted; and</li> <li>3) that proper farm practices regarding crop rotation be applied, as appropriate.</li> </ol> <p><u>Handling and Storage</u></p> <ol style="list-style-type: none"> <li>1) liquid fertilizer to be stored in double-walled tanks or secondary containment facilities, with collision protection;</li> <li>2) dry fertilizer to be stored under cover on impervious floor surfaces with no drainage outlets so that the application, handling and storage of commercial fertilizer ceases to be or does not become a significant drinking water threat.</li> </ol>	MON-6

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Policy Number	Tool	Legal Effect	Implementer	Existing /Future	Policy Text	Policy Monitoring Requirement
FERT(ICA)-2	Pro	MC	RMO	E/F	Where the Nutrient Management Act does not require an approval, the existing and future handling, storage and application of commercial fertilizer is designated for the purposes of Section 57 of the Clean Water Act, and is therefore prohibited <b>in the WHPA-E or</b> where the Vulnerability Score is 10, and the activity is or would be a significant drinking water threat.	MON-6
FERT(ICA)-3	PI	MC	MAFA	E/F	Where the existing and future application of commercial fertilizer to land is in an area <b>outside the WHPA-E and</b> where the Vulnerability Score is less than 10 and the activity is or would be a significant drinking water threat, and requires approval under the Nutrient Management Act, MAFA shall ensure that the nutrient management plan or strategy that governs the application of commercial fertilizer include appropriate terms and conditions to ensure the activity ceases to be or become a significant drinking water threat. Such conditions may include: <ul style="list-style-type: none"> <li>1) requiring all fertilizers to be applied using best agronomic practices based on the advice of a certified crop advisor;</li> <li>2) that soil tests (NPK) be conducted; and</li> <li>3) that proper farm practices regarding crop rotation be applied, as appropriate.</li> </ul>	MON-3
FERT(ICA)-4	PI	MC	MAFA	E/F	The existing and future application of commercial fertilizer to land is prohibited <b>in the WHPA-E or</b> where the Vulnerability Score is 10 and the activities would be a significant drinking water threat.	MON-3

## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.3

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Bill Thompson, Project Manager South Georgian Bay - Lake Simcoe Source Protection Region

**Date:** October 16, 2025

**Subject:** **Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update**

### Recommendations:

**That** presentation d) and Staff Report SPC2.3 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update be received for information.

### Purpose of Staff Report:

The purpose of this Staff Report is to provide an overview of the technical work completed for the new emergency Sunderland Well 4 in support of the proposed amendments to the Source Protection Plan and the Region of Durham Assessment Report chapter.

### Background:

The Region owns and operates the Sunderland municipal water supply system, which services the community of Sunderland in the Township of Brock, Regional Municipality of Durham, located approximately 15 km southeast of Lake Simcoe, at the intersection of Highway 7/12 and Concession Road 6. Until recently, the Sunderland municipal drinking water system comprised three supply wells, designated MW1, MW2, and MW3. The original wells (MW1 and MW2) are located to the east of the community, on the east bank of the Beaver River, while MW3 is located off Jane Street near the north end of the community (Figure 1).

In May 2017, MW2 was taken offline due to the degradation of raw water quality that inhibited the effectiveness of the existing water treatment system. To compensate for the water supply issues at MW2, the Region initiated an emergency exploration program, which resulted in the construction and incorporation of MW3 and associated treatment system into the municipal water supply system.

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Since commissioning, MW3 had issues with sand production. Cartridge filters were installed in the treatment system to accommodate for the issue. In 2024, increased issues with sand production at MW3 led to the Region initiating the construction of an emergency replacement supply well. The new supply well, MW4, was constructed in October 2024 and is located approximately 20 m to the east of MW3 on the same property (Figure 1). The new well was drilled to a depth of 33.23 metres below ground surface and completed with a 185 mm diameter 5.5 m long screen between depths of 26.2 and 31.7 metres below ground surface. Notably, the screened interval for MW4 is similar to that of MW3, completed with a 5.9 m long screen, set between 27.9 and 33.8 metres below ground surface. Accordingly, both the existing well MW3 and the new emergency replacement well MW4 are interpreted to be screened across the same aquifer (Thorncliffe Formation; GeoProcess, 2021b). The operational rates and maximum permitted pumping rates for MW4 are the same the same as MW3.

In 2024, GeoProcess undertook the capture zone modelling and vulnerability analyses to support the Region with the incorporation of the emergency replacement supply well MW4 into the Sunderland municipal water supply system (GeoProcess, 2024). The previous capture zone modelling and WHPA delineations were completed by GeoProcess (2021b) for the existing well MW3. The intent of this work was to evaluate the potential changes to the Sunderland WHPA delineations due to the new location of the emergency supply well MW4.

### **Issues:**

The Assessment Report provides the technical foundation to the Source Protection Plan. It evaluates the vulnerability of municipal drinking water systems to contamination and identifies potential significant drinking water threat activities to which policies in the Source Protection Plan will apply.

As part of the technical work to incorporate the new emergency supply well (MW4), the capture zones, vulnerability mapping were updated by GeoProcess (2024; Figures 2 and 3) and the threats assessment, mapping of managed lands, livestock density, and impervious surfaces has been completed by Durham Region (2025).

The approval of new municipal well is an exercise with several steps, including the approval of the pumping rate through a Permit to Take Water, and the approval to use that well for municipal drinking water through a Drinking Water Works License and Permit, which have already been obtained by the MECP. It is the role of the Source Protection Committee and Source Protection Authority to update the Assessment Report and Source Protection Plan to include these wells and their associated vulnerable areas, to ensure

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that aquifers are sufficiently protected before the wells come into service as municipal drinking water sources.

Following completion of this technical work, and review of associated policies, the Source Protection Authority can initiate amendments under Section 34 of the Act, when the Source Protection Authority and Committee are both of the opinion that an update is advisable. After the Authority and Committee have so agreed, the proposed amendments are taken for pre-consultation to all bodies responsible for implementing them, to public consultation, and finally submitted to the Minister for approval. It is anticipated that an amendment to address this change could be ready to submit for approval by summer 2026.

### Summary:

The Regional Municipality of Durham is proposing to revise wellhead protection area boundaries and vulnerability scores for the Sunderland Well Supply, to allow the incorporation of one new municipal well (MW4) into the water supply system. Source Protection Authority staff have drafted an updated Regional Municipality of Durham chapter in the Assessment Report which incorporates the new technical work and accounts for the new well.

### Recommendations:

**It Is Therefore Recommended that** presentation d) and Staff Report SPC2.3 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update be received for information.

### Prepared by:

Bill Thompson, Program Manager, South Georgian Bay – Lake Simcoe Source Protection Region

### Attachments: 2

### Attachment 1

#### References:

GeoProcess Research Associates Inc., 2025. Letter, Sunderland Municipal Water Supply System – Revised Source Protection Mapping, Reporting Region of Durham/ORMGP

S.S. Papadopoulos & Associates/GeoProcess Research Associates Inc., 2021. Groundwater Modelling Update to meet Source Protection Requirements (Draft Report July 6, 2021). Prepared for The Regional Municipality of Durham.

S.S. Papadopoulos & Associates/GeoProcess Research Associates Inc., 2021. Technical Memorandum: Sunderland Municipal Water Supply System - Local Wellfield Characterization Reporting, October 4, 2021. Prepared for The Regional Municipality of Durham.

Tatham Engineering, 2025. Sunderland Well Replacement – Construction and Testing of Sunderland MW4 – The Regional Municipality of Durham.

WSP. 2022. Assessment of Drinking Water Threats – Sunderland MW3.

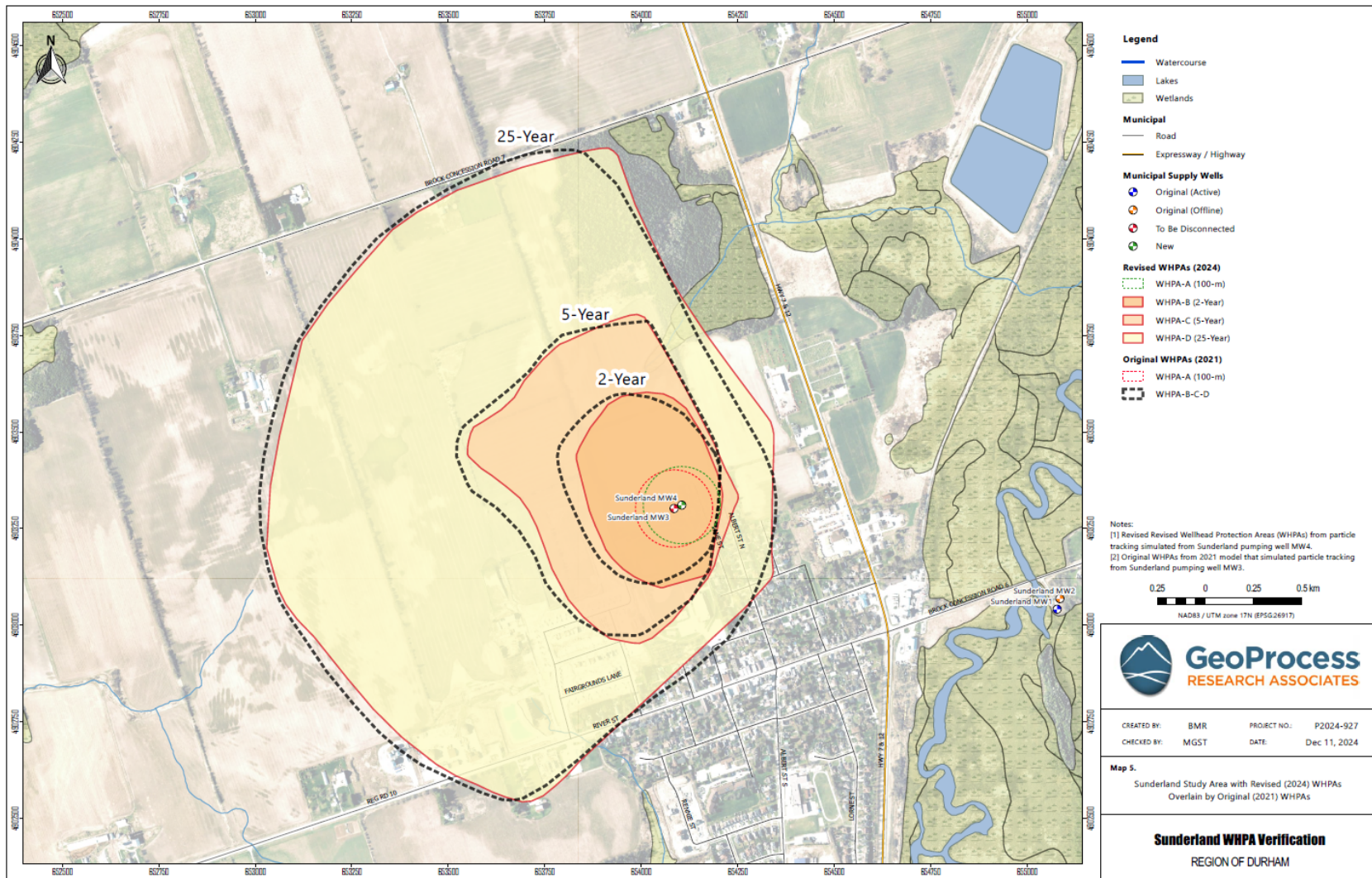
Durham Region, 2025, Updated Assessment of Drinking Water Threats – Sunderland MW4, The Regional Municipality of Durham.

Attachment 2

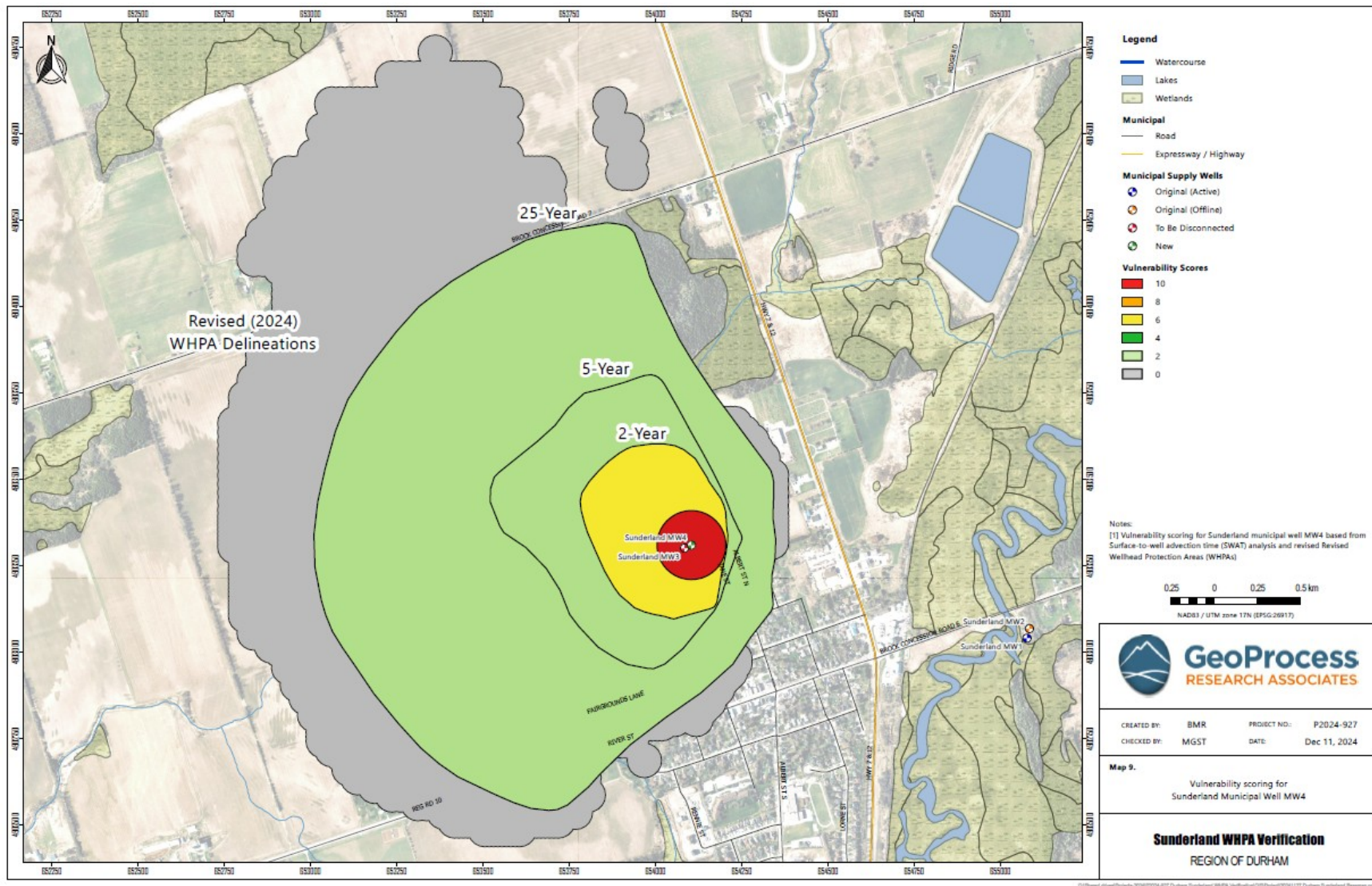


Figure 1: Location Community of Sunderland

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**Figure 2:** Sunderland Study Area with Revised (2024) WHPAs for MW4 (GeoProcess, 2025).



**Figure 3:** Vulnerability scoring for Sunderland Municipal Well MW4 (GeoProcess, 2025).

## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.4

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Bill Thompson, Project Manager, South Georgian Bay – Lake Simcoe Source Protection Region

**Date:** October 16, 2025

**Subject:** **Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System**

### Recommendations:

**That** presentation d) and Staff Report SPC2.4 regarding Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Durham Region chapter of the Assessment Report is advisable.

### Purpose of Staff Report:

The purpose of this Staff Report [Click or tap to enter staff report number] is to provide the Committee an overview of the policy implications of the change to the vulnerable area mapping for the Sunderland drinking water system.

### Background:

As described in Staff Report SPC2.3, Durham Region has introduced some changes to their Sunderland Drinking Water System to address ongoing performance issues in well MW3. In short, a new well (MW4) has been constructed to replace well MW3. This new well is within 20m of the location of the earlier well, is screened in the same aquifer, and has a Permit to take the same volume of water.

As a result of the relocated well, the wellhead protection area delineation has been shifted by a similar distance east. Because the depth and volume remain unchanged, and stratigraphy is similar in such close proximity, the overall shape of the vulnerable area and its vulnerability score remain unchanged.

The Durham Region chapter of the Assessment Report which describes the Sunderland Drinking Water System and its vulnerable areas needs to be updated to address this

## Item SPC2.4

change, to ensure it remains accurate, and to ensure that Durham Region meets its obligations under the *Safe Drinking Water Act*.

### Issues:

This small shift in vulnerable area boundaries, and unchanged vulnerability scores, brings no new activities into areas where they could be significant threats to drinking water.

As a result, no new significant drinking water threats have been identified and therefore this amendment would have no policy implications.

### Summary:

An amendment to the Durham Region chapter of the Assessment Report is proposed, to address the relocation of a well at the Sunderland drinking water system. The associated change to vulnerable area is minimal, and will lead to no additional significant drinking water threats to manage.

As described in Staff Report SPC2.3, if the Source Protection Committee is agreeable that this amendment is advisable, staff will proceed with the next steps in the process (pre-consultation, public consultation, and submission for Ministerial approval). To gain some efficiencies, this amendment would be integrated into the proposed amendment to address the nitrate Issue Contributing Area in Cannington.

### Recommendations:

**It Is Therefore Recommended That** presentation d) and Staff Report SPC2.4 regarding Policy Implications of the Change to Vulnerable Area Mapping at the Sunderland Drinking Water System be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Durham Region chapter of the Assessment Report is advisable.

### Prepared by:

Bill Thompson, Program Manager, South Georgian Bay – Lake Simcoe Source Protection Region

## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.5

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Chloe Zhang, Source Water Protection Hydrogeologist, Lake Simcoe Region Conservation Authority

**Date:** October 16, 2025

**Subject:** **Source Protection Plan and Assessment Report Update – Technical Report in Support of the Sunderland s.34 WHPA Update**

### Recommendations:

**That** presentation e) and Staff Report SPC2.5 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Kawartha Lakes chapter of the Assessment Report are advisable.

### Purpose of Staff Report:

The purpose of this Staff Report is to provide an overview of the technical work completed for the two new Woods of Manilla water supply wells (Well 2A and Well 3) in support of the proposed amendments to the Source Protection Plan and the City of Kawartha Lakes (the City) Assessment Report chapter.

### Background:

The City owns and operates the Woods of Manilla municipal water supply system, which services the community of Manilla in the City of Kawartha Lakes, former Mariposa Township. The Woods of Manilla municipal water supply system historically consisted of two wells (Well 1 as the duty well and Well 2 as the backup well). The two former supply wells were located within both the Kawartha-Haliburton Source Protection Area in the Trent Conservation Coalition (TCC) Source Protection Region (SPR) and the South Georgian Bay-Lake Simcoe Source Protection Region (SGBLS SPR).

A new water supply well (Well 2A) was installed in May 2021 to replace Well 2 due to groundwater turbidity issues in Well 2, and Well 2 was subsequently decommissioned. A second new well, Well 3, was drilled in May 2024 to replace the former backup Well 1,

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which was decommissioned in January 2025. All Woods of Manilla wells are screened into a confined granular sand aquifer, designated as the Woods of Manilla Aquifer.

The new water supply wells (Well 2A and Well 3) are located at 85 Robmar Crescent, in the vicinity of former Well 2 and on the edges of a residential subdivision of Manilla (Figure 1). Both wells are located within the Kawartha-Haliburton Source Protection Area of the TCC SPR, with a small portion of this system's WHPA extending into the SGBLS SPR (Figure 2).

The Woods of Manilla water supply system is to operate under Permit to Take Water (PTTW) No. 2660-C7KSBJ and Drinking Water Works Permit (DWWP) No. 141-206. The permits were amended in 2021/2022 to reflect the updated duty well as being Well 2A (replacing Well 2). Under the PTTW, Well 2A is permitted to pump at a maximum rate of 109 L/min (157.11 m<sup>3</sup>/day) while Well 1 is permitted to pump at a maximum rate of 50 L/min (72.009 m<sup>3</sup>/day). Well 2A is operated as the primary duty well and Well 1 serves as a backup water source. The wells are permitted to operate either individually or together for a maximum combined taking of 229.119 m<sup>3</sup>/day. An update to the existing permitted water takings for the backup well is proposed during the permit amendment application submission to replace Well 1 with Well 3. The proposed permitted rate for Well 3 has increased to 109 L/min (157.11 m<sup>3</sup>/day) with an intention to mirror the rates for the duty well (Well 2A) with the stipulation that the wells cannot be run simultaneously.

The Wellhead Protection Area for the former supply wells (Well 1 and Well 2) were delineated by Genivar Inc. (Genivar) in 2010 (Figure 3). The proposed Wellhead Protection Areas for the two new supply wells (Well 2A and Well 3) were completed by D.M. Wills Associates Limited (Wills) in 2025, by updating the 3-dimensional numerical groundwater flow model originally created by Genivar for the former wellfield in 2010.

Elements of Genivar's model from the Genivar 2010c report (i.e.: grid, boundary conditions, and hydraulic conductivities for part of the model) were used to create a revised model with a smaller model domain spanning the area around Manilla and extending for approximately 5 km in all horizontal directions. Grid changes include refining the grid horizontally and adding layers where necessary.

The updated verified steady-state MODFLOW groundwater flow model with incorporated changes in parameters discussed above was used to generate a steady state simulation of groundwater conditions. Two steady-state scenarios were produced with either Well 2A or Well 3 pumping at 109 L/m (157 m<sup>3</sup>/d), the maximum PTTW rate. The proposed capture zones/ Wellhead Protection Areas and vulnerability zones for the new wellfield have been determined.

The proposed new Wellhead Protection Area (Figure 2) have changed from those in the Genivar 2010 report (Figure 3). The new model was calibrated based on hydraulic

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conductivities derived from recent pumping tests on the new municipal wells to provide a high degree of confidence in the new hydrogeologic model.

The Woods of Manilla Municipal Residential Water Supply wells are located on a groundwater divide corresponding to the surface water divide which separates the SGBLS region domain from the TCC region domain. Both two new wells are within the Kawartha Drainage Basin, with a small portion of the updated WHPA extending into the Lake Simcoe drainage basins. Consequently, groundwater flow directions can vary considerably over a short distance. This is one of the reasons why the 2010 and 2025 Wellhead Protection Areas are different. Current modelling shows groundwater flow direction near the municipal wells is from the east and east-northeast induced by the drawdown cone of the municipal wells due to pumping rather than the southeast as depicted in the 2010 modelling.

### Issues:

The Assessment Report provides the technical foundation to the Source Protection Plan. It evaluates the vulnerability of municipal drinking water systems to contamination and identifies potential significant drinking water threat activities to which policies in the Source Protection Plan will apply.

As part of the technical work to incorporate the new supply wells (Well 2A and Well 3), the capture zones and vulnerability mapping were updated by Wills (2025; Figures 2 and 4) and the threats assessment, mapping of managed lands, livestock density, and impervious surfaces has also been completed by Wills (2025).

Eight Prescribed Drinking Water Threats were identified within the Wellhead Protection Areas of the Manilla Water Supply, specifically within WHPA-A and WHPA-B. All the identified Prescribed Drinking Water Threats are within the Kawartha-Haliburton Source Protection Area in the Trent Conservation Coalition (TCC) Source Protection Region (SPR). No Prescribed Drinking Water Threats have been identified in the South Georgian Bay-Lake Simcoe Source Protection Region (SGBLS SPR).

The approval of new municipal well is an exercise with several steps, including the approval of the pumping rate through a Permit to Take Water, and the approval to use that well for municipal drinking water through a Drinking Water Works License and Permit, which have already been obtained from the MECP. It is the role of the Source Protection Committee and Source Protection Authority to update the Assessment Report and Source Protection Plan to include these wells and their associated vulnerable areas, to ensure that aquifers are sufficiently protected before the wells come into service as municipal drinking water sources.

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Next steps in this amendment would include taking the draft amendment to pre-consultation with all bodies with implementation responsibilities, to public consultation, and finally submitted to the Minister for approval. As this amendment crosses the Source Protection Region boundary, both the South Georgian Bay – Lake Simcoe Source Protection Plan and the Trent Conservation Coalition Source Protection Plan must be amended. Staff from these two Source Protection Regions are collaborating to reduce duplication, and to avoid creating confusion in this community. It is anticipated that amendments to address this change could be ready to submit for approval by summer 2026.

### Summary:

The City of Kawartha Lakes is proposing to revise wellhead protection area boundaries and vulnerability scores for the Woods of Manilla Well Supply, to allow the incorporation of two new municipal wells (Well 2A and Well 3) into the water supply system. Eight Prescribed Drinking Water Threats were identified within the Wellhead Protection Areas of the Manilla Water Supply, specifically within WHPA-A and WHPA-B. All the identified Prescribed Drinking Water Threats are within the Kawartha-Haliburton Source Protection Area in the Trent Conservation Coalition (TCC) Source Protection Region (SPR). No Prescribed Drinking Water Threats have been identified in the South Georgian Bay-Lake Simcoe Source Protection Region (SGBLS SPR). Source Protection Authority staff have drafted an updated City of Kawartha Lakes chapter in the Assessment Report which incorporates the new technical work and accounts for the new wells.

### Recommendations:

**It Is Therefore Recommended That** presentation e) and Staff Report SPC2.5 regarding Source Protection Plan and Assessment Report Update – Technical Report in Support of the Woods of Manilla s.34 WHPA Update be received for information; and

**Further That** the South Georgian Bay - Lake Simcoe Source Protection Committee agree that the proposed amendments to the Kawartha Lakes chapter of the Assessment Report are advisable.

### Prepared by:

Chloe Zhang, Region Source Water Protection Hydrogeologist, Lake Simcoe Region Conservation Authority

### Attachments: 2

### Attachment 1

#### References:

D.M. Wills Associates Limited, 2025. Woods of Manilla Source Water Protection Plan Update, Manilla, Ontario

Attachment 2

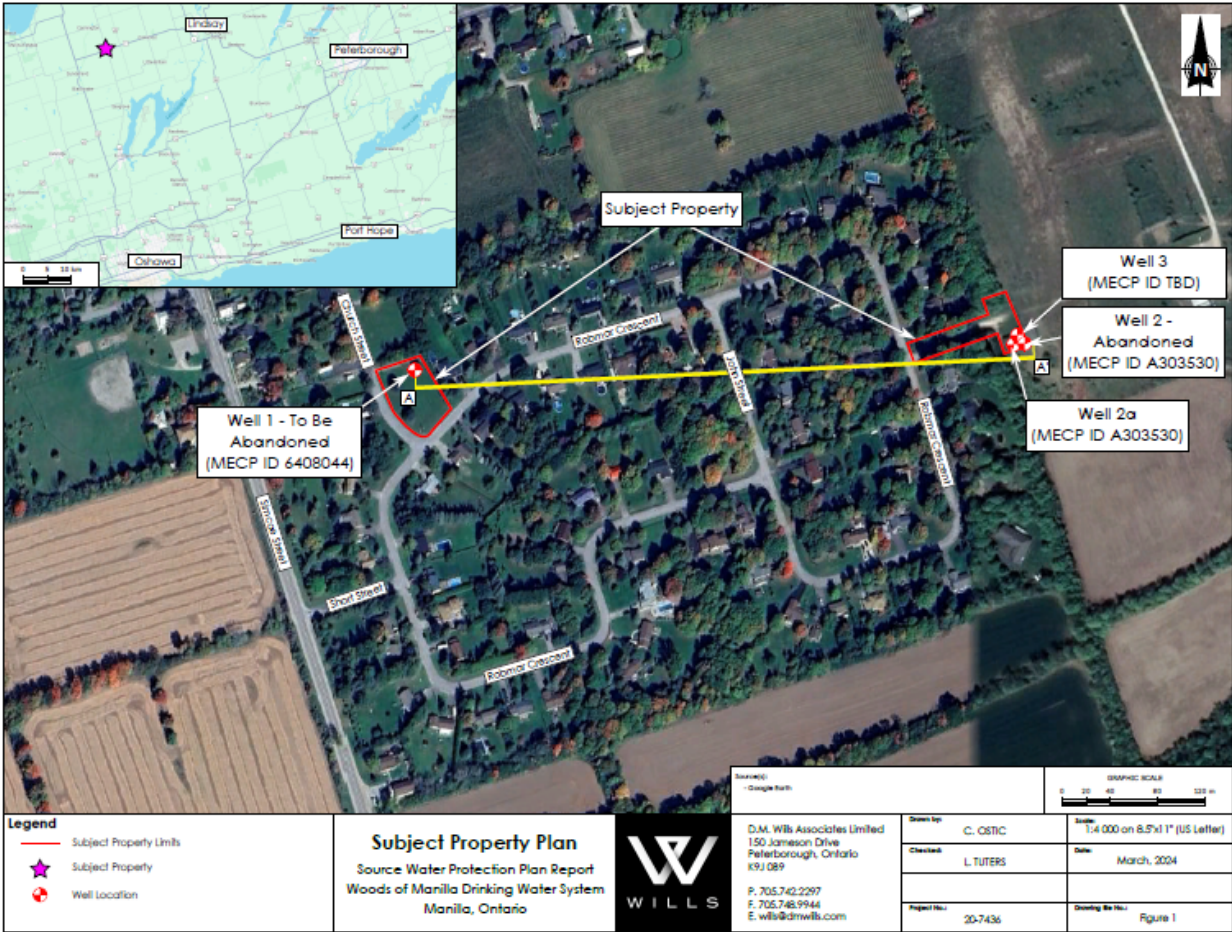
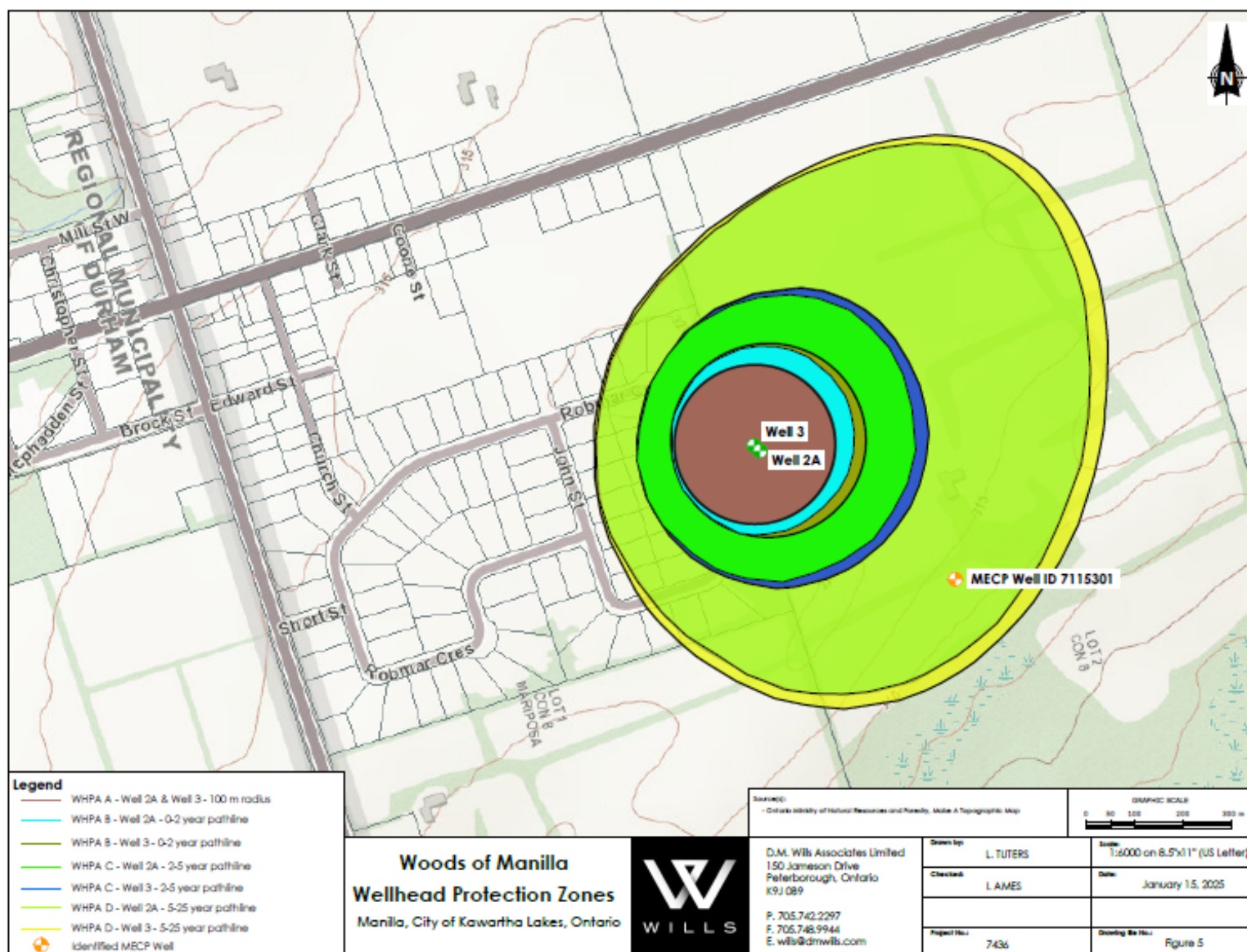
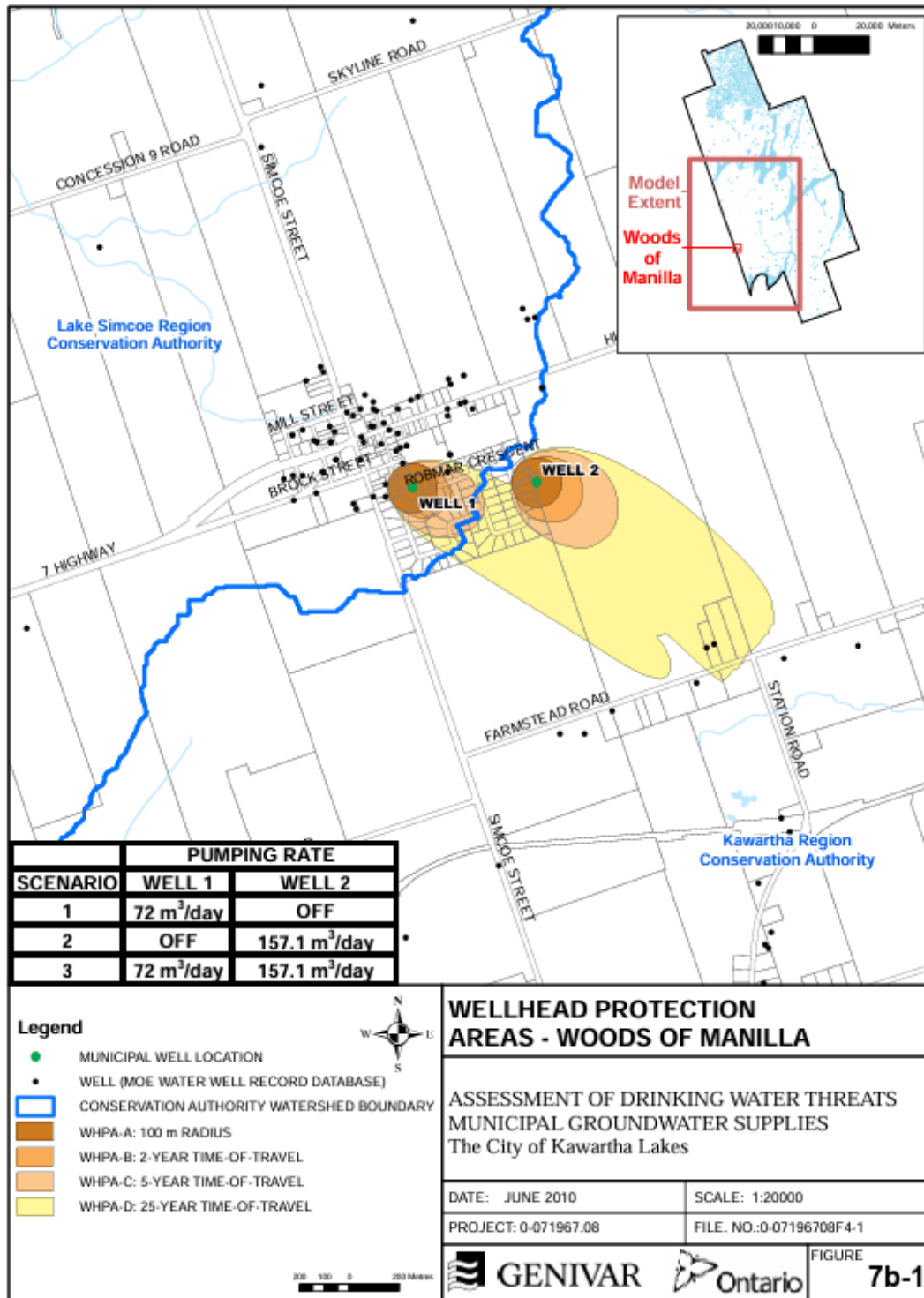


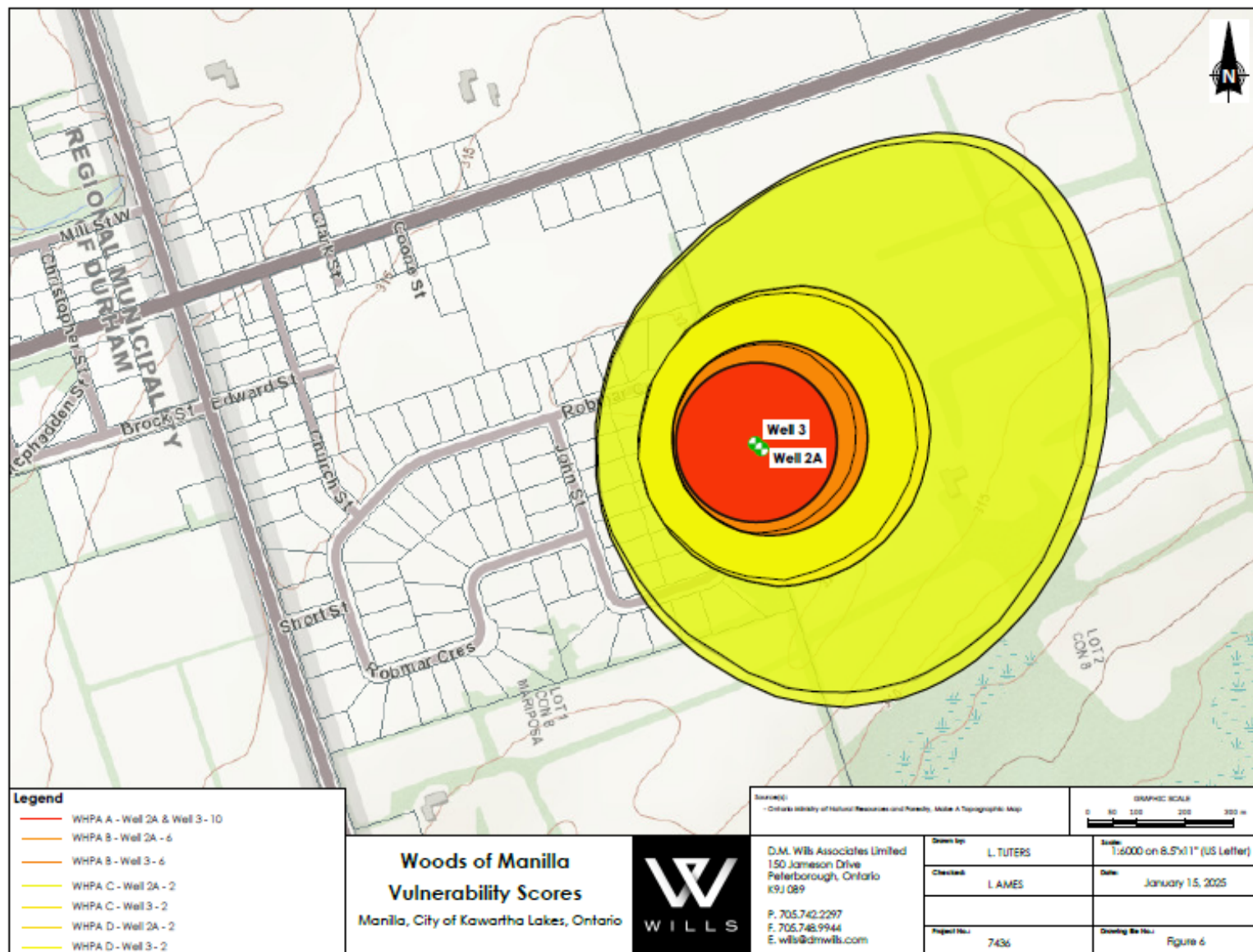
Figure 1: Former and Current Water Supply Well Locations in Manilla



**Figure 2:** Proposed new Wellhead Protection Areas for Woods of Manilla New Supply Wells: Well2A and Well3 (Wills, 2025).



**Figure 3.** Currently approved Wellhead Protection Area for the Woods of Manilla Drinking Water System



**Figure 4:** Vulnerability scoring for Woods of Manilla New Supply Wells: Well2A and Well3 (Wills, 2025).

## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.6

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Bill Thompson, Manager, Watershed Plans and Strategies, Lake Simcoe Region Conservation Authority

**Date:** October 16, 2025

**Subject:** Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township)

### Recommendations:

That presentation f) and Staff Report SPC2.6 regarding Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township) be received for information.

### Purpose of Staff Report:

The purpose of this Staff Report is to provide a summary of water quality data to the Source Protection Committee for their information.

### Background:

At the Source Protection Committee meeting in June 2022 (SPC-03-2022) the planned new Midhurst Valley drinking water system in Springwater Township was presented to the Committee. In the presentation, the consultant reported that water quality at the well site met the Ontario Drinking Water Quality Standards, with the exception of the aesthetic standard for hardness (which is a common occurrence in this area), and that nitrate concentrations are elevated, but remain below the Ontario Drinking Water Quality Standards (i.e. nitrate has been observed at concentrations had been observed between 7 and 9 mg/L, while the Standard is 10 mg/L).

When presenting to the Source Protection Committee, the consultant expressed the opinion that the nitrate source was likely associated with agricultural operations, and that concentrations should drop as this area shifts to being primarily residential. It wasn't clear however what that assumption was based on.

The Source Protection Committee agreed that the proposed amendment to add the newly identified wellhead protection areas to the Assessment Report was advisable, however

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Committee members have continued to have questions about water quality in this area. As a result, Source Protection Authority staff agreed to come back to the Committee at a later date, when more data is available.

### Issues:

Since coming into operation in spring 2024, raw water quality in the two wells at the Midhurst Valley Drinking Water System have been sampled quarterly for nitrate, as is required by the *Safe Drinking Water Act*. The results of that sampling is illustrated in Figure 1 in Appendix A.

As can be seen in that graph, nitrate concentrations remain below the Ontario Drinking water Quality Standard of 10 mg/L. Nitrate concentrations in Well 1 are stable, to slightly decreasing. Concentrations in Well 2 were decreasing in 2024, but have shown an increase again in the two most recent samples. No data for well 2 from February 2025 was included on the graph; sampling was done in that period, with nitrate concentrations of 2.15 mg/L. However, Well 2 was out of service at the time due to mechanical issues, and the water system operator is of the opinion that this data point is not representative of concentrations experienced when the well is in operation.

This drinking water system is operated by the Ontario Clean Water Agency, acting on behalf of the municipality. They are managing the elevated concentrations in Well 2, in part, by relying on Well 1 to provide a greater volume of water. This dilution, in combination with a treatment system results in treated water being delivered from the system at a concentration of 1.94 mg/L.

As the treated water is well within the Ontario Drinking Water Quality Standard for nitrate, this drinking water system does not represent any immediate risk to residents in this area. However, the multi-barrier approach to managing drinking water in Ontario leaves the responsibility of managing quality of untreated water to the Source Protection Committee and Authority, and to those they empower to act under policies in the Source Protection Plan.

The Technical Rules underpinning the Source Protection Program empowers the Committee to declare a drinking water Issue, if:

- There is a contaminant in a municipal aquifer which exceeds the Ontario Drinking Water Quality Standard, or
- There is a contaminant with a concentration that is increasing such that it might exceed the Ontario Drinking Water Quality Standard

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The Midhurst Valley Drinking Water System does not meet the first of these tests and, prior to May of this year, did not meet the second. However, the concentration of nitrate is close to the Standard, so an Issue could emerge in the future which would require an Issue Contributing Area be identified. As can be seen in Figure 2 in the appendix, there is a small industrial area along Snow Valley Road in the WHPA-B, immediately south of the wells, and the remainder of the wellhead protection area is either forest or farmland (much of which is currently being developed). If an Issue Contributing Area for nitrate were identified in this area, policies to restrict any activities associated with the use of nitrate (including fertilizers, septic systems, and waste management) would need to be established.

Note as well that there is a clause in the Technical Rules which allows the Source Protection Authority to not declare an Issue, if they are of the opinion that the contaminant is sufficiently addressed through treatment.

### Summary:

Nitrate concentrations in the raw water at the Midhurst Valley municipal drinking water system remain elevated, but below the Ontario Drinking Water Quality Standard of 10 mg/L. Treatment in place at this system is sufficient to bring nitrate concentrations to 1.94 mg/L, well within the Provincial Standard.

Source Protection Authority staff will continue to monitor water quality testing at these wells. If a drinking water Issue emerges, it will be brought to the Source Protection Committee's attention.

### Recommendations:

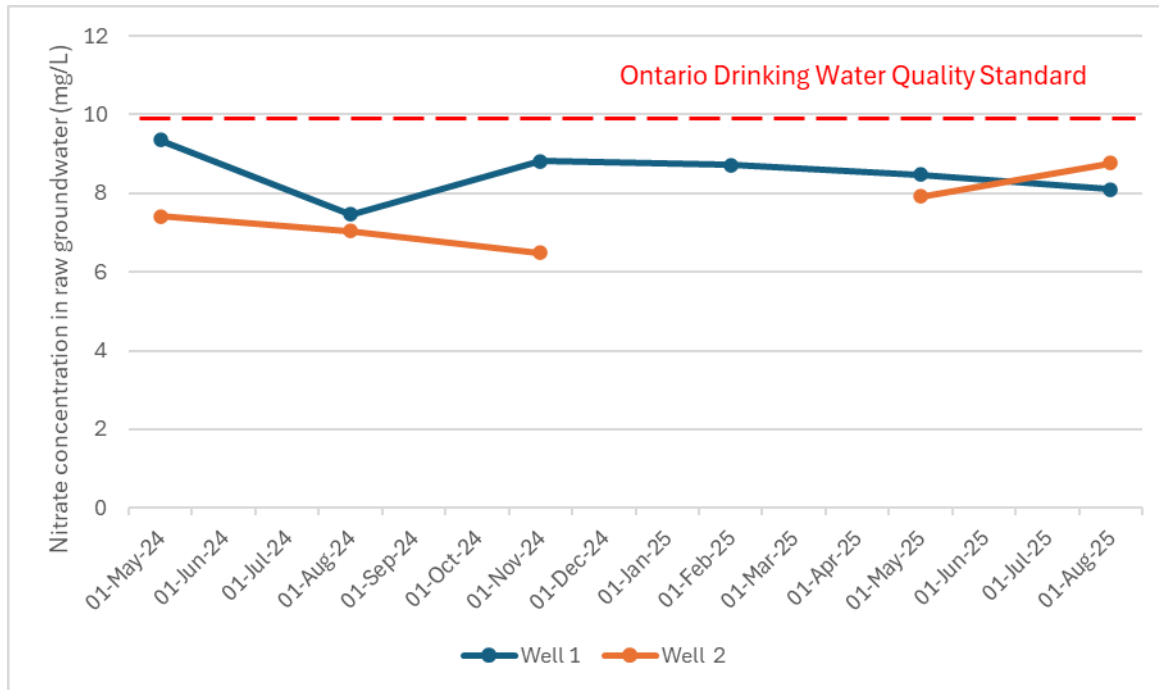
**It Is Therefore Recommended That** presentation f) and Staff Report SPC2.6 regarding Update on Nitrate in Raw Water at Midhurst Valley Drinking Water System (Springwater Township) be received for information.

### Prepared by:

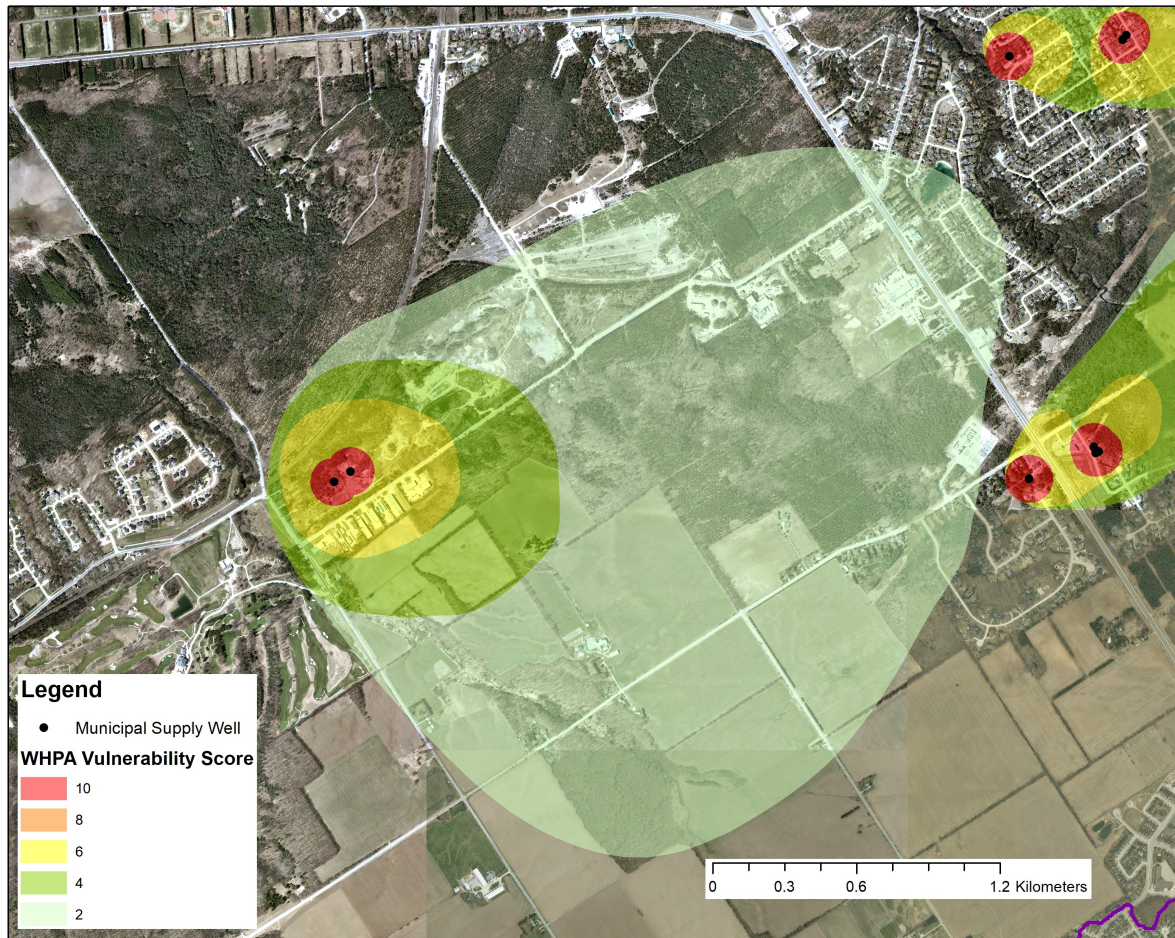
Bill Thompson, Project Manager, South Georgian Bay – Lake Simcoe Source Protection Region

### Attachments: 1

## Appendix A

**Figure 1.** Recent nitrate concentrations in the Midhurst Valley drinking water system

**Figure 2.** Midhurst Valley drinking water system wellhead protection area



## Source Protection Committee Meeting SPC-03-2025

### Staff Report Number: SPC2.7

**To:** South Georgian Bay - Lake Simcoe Source Protection Committee

**From:** Mystaya Touw, Sourcewater Protection Specialist, Lake Simcoe Region Conservation Authority

**Date:** October 16, 2025

**Subject:** Update on Stormwater Approvals - EASR

### Recommendations:

**That** presentation g) and Staff Report SPC2.7 regarding Update on Stormwater Approvals - EASR be received for information; and

**Further That** the policy recommendations to add policy MON-7 and remove and replace policy SEWG(a)-2 be approved.

### Purpose of Staff Report:

The purpose of this Staff Report is to provide the Committee with an update on the state of stormwater approvals after a decision was posted for the Environmental Registry of Ontario posting 019-6928 “Streamlining environmental permissions for stormwater management under the Environmental Activity and Sector Registry”, and to provide an opportunity to review the proposed amendments to the Source Protection Plan in this context.

### Background:

In August of 2023, a notice was posted to the Environmental Registry of Ontario (019-6928) entitled “Streamlining environmental permissions for stormwater management under the Environmental Activity and Sector Registry.” A staff report and presentation on the proposal was brought to the Committee in November of 2023. The posting proposed to move some private stormwater facilities, including those that could be Significant Drinking Water Threats, away from requiring an Environmental Compliance approval and towards self-registration on the Environmental Activity and Sector Registry.

On July 22, 2025, a decision was posted for the Environmental Registry of Ontario notice which resulted in a new regulation under the *Environmental Protection Act* (O. Reg. 137/25), and amendments to O.Reg. 252/98 (*Ontario Water Resources Act*) and O. Reg. 287/07 (*Clean Water Act*). These changes came into effect on September 1, 2025.

### Issues:

#### Overview of Provincial Policy Landscape – Stormwater Works, 2025

Stormwater works in Ontario now fall into four categories with respect to the need for or type of approval required. Municipal stormwater infrastructure has moved in recent years to **Consolidated Linear Infrastructure – Environmental Compliance Approvals** (CLI-ECA). As of September 2025, private stormwater works may require 1) an **Environmental Compliance Approval (ECA)**, 2) registration the **Environmental Activity and Sector Registry (EASR)**, or 3) be **exempted from approvals** and registration.

**Consolidated Linear Infrastructure – Environmental Compliance Approvals** are for public infrastructure and allows municipalities to have one large approval for all stormwater works in their system. This consolidation allows for ease of system-wide standardization of operation and maintenance practices. These approvals require Ministry review and posting to the Environmental Registry of Ontario for public consultation.

Standard **Environmental Compliance Approvals** are now intended to be for stormwater works that are ineligible for self-registration on the Environmental Activity and Sector Registry, generally due to complexity, location or level of risk they pose. Reason for this self-registration ineligibility may include:

- Processing, repair or maintenance of goods or materials is conducted outdoors
- Discharge from process water, cooling water, wash water, or sanitary sewage is collected or received by the stormwater works
- The stormwater facility services an activity such as heavy industrial sites, resource extraction sites, power generation facilities, golf courses and greenhouses, salt and snow storage areas, waste disposal sites, etc.

These sites are deemed higher risk and may need more complex containment and treatment than standard stormwater facility design guidelines provide.

Environmental Compliance Approvals require review by Ministry staff before approval, and must be posted to the Environmental Registry of Ontario for consultation. The review process can involve Ministry staff consulting with other government divisions for enhanced oversight. It is also important to note that both types of Environmental Compliance approvals can also be rejected by Ministry staff for the quality or suitability of the application.

Registration to the **Environmental Activity and Sector Registry** is the newly introduced ‘approval’ type for stormwater facilities. It is intended to be used for privately owned

## Item SPC2.7

stormwater works servicing commercial, institutional, light industrial or multi-unit residential properties. It can include, but is not limited to, works such as oil and grit separators, infiltration trenches, vegetated swales, ponds and underground chambers. Registrants must follow standardized guidance for design, operations, and maintenance. If the Activity could be a Significant Drinking Water Threat, that must be stated in the registration along with how the Threat will be managed. The Ministry has developed guidance for proponents on how to assess if an Activity is a Significant Drinking Water Threat. The Source Protection Authority is also to be notified of potential Threats and the process for doing so may end up being built into the registration system. The registration must be signed off on by a Licensed Engineering Practitioner. If the Source Protection Authority notifies the owner of an existing stormwater facility with a registration that it may become a Significant Drinking Water Threat through circumstances such as a new well being drilled on an adjoining property, the owner must conduct an assessment of it as if it were a new Activity.

Self-registration allows for construction to begin immediately. Registrations are not reviewed by the Ministry before ‘approval’, nor are they required to be posted to the Environmental Registry of Ontario. This lack of immediate review mean that registrations can only really be rejected for being deemed ineligible through an initial questionnaire, or for being incomplete. There is no immediate quality control beyond the sign off of the engineering practitioner. This means that stormwater features that are ineffective or insufficient to manage potential Threats may only be discovered through audits after the works have already been constructed. The Ministry has said they will be dedicating staff time to after-the-fact reviews and audits, though the frequency and prioritization of reviews is not clear at this time.

These registrations, along with both types of Environmental Compliance Approvals, are to be available to look at through the Access Environment web viewer. The questions answered by the proponent and/or their engineering practitioner will be visible through this channel. Full reports on design, operations, maintenance, and risk mitigation however will not be available, as some of that information may be proprietary in nature.

Finally, some low-risk private stormwater features are **exempt from all approvals** and registrations. This can include low impact development works (as defined by the 2024 Provincial Policy Statement) for residential or multi-residential properties. The exception has been expanded in fall 2025 to include residential properties where sewage works are also present (but not connected to stormwater infrastructure) and for features servicing rail tracks. Stormwater features for rail station, servicing stations, storage yards, or rail works yards are not exempt from approvals and registrations.

### Implications for the Committee and the Source Protection Plan

Registration to the Environment Activity and Sector Registry is considered an ‘approval’ or Prescribed Instrument, and as such, the Committee cannot stack additional policies onto the activity such as a Risk Management Plan policy. Prohibition policies and monitoring policies would still be allowed. A prohibition policy in this case would result in being more strict on the somewhat lower risk activities eligible for registration than the current policies are for higher risk stormwater features that require an Environmental Compliance Approval. It would be more reasonable to consider a monitoring policy directed at the Ministry focused on the number of registered stormwater features which constitute Threats in the Source Protection Region and how many they audited, on an annual basis, as well as a non-legally binding policy requesting that MECP prioritize Significant Drinking Water Threats in the auditing process for stormwater facilities registered to the Environmental Activity and Sector Registry.

During the policy development and review phase of the Section 36 amendment to the Source Protection Plan, and before the province introduced this new registration option, the Committee endorsed a Risk Management Plan policy for stormwater works exempted from approvals, where they would be a Significant Drinking Water Threat. At the time, all other stormwater Threats would have required an Environmental Compliance Approval, so this approach seemed fair. However, now that some stormwater features do not require Environmental Compliance Approvals and cannot have Risk Management Plans due to their registration to the Environmental Activity and Sector Registry, perhaps requiring Risk Management Plans for those lowest risk exempted systems is no longer fair.

### Proposed Policy Changes

- ADD:
  - MON-7: By February 1 of each year, MECP shall report to the local Source Protection Authority on the number of registrations to the Environmental Activity and Sector Registry (EASR) that are considered Significant Drinking Water Threats, and how many registrations for Significant Drinking Water Threats were audited by Ministry Staff in the previous year.
  - SEWG(a)-2: The MECP is encouraged to prioritize activities registered to the Environmental Activity and Sector Registry that are considered Significant Drinking Water Threats within their audit process.
- REMOVE:
  - SEWG(a)-2: Where the Ontario Water Resources Act does not require an approval, existing and future stormwater infiltration facilities, where the activity would be a significant threat to drinking water, shall require a Risk

## Item SPC2.7

Management Plan that includes appropriate terms and conditions to ensure that the activity ceases to be or does not become a significant drinking water threat.

### Summary:

The provincial policy and approvals landscape for stormwater facilities in Ontario is evolving through the decision posted for the Environmental Registry of Ontario, notice “Streamlining environmental permissions for stormwater management under the Environmental Activity and Sector Registry,” and resulting regulatory changes such as the new O.Reg 137/25. The biggest change this decision brought in is that some private stormwater facilities that would previously have required an Environmental Compliance Approval will now be managed through self-registration to the Environmental Activity and Sector Registry instead. This process is faster but provides less oversight.

As a result of these changes, it is recommended that a monitoring policy directed at MECP be added to the Source Protection Plan to help keep track of significant Threats, and that the risk management plan for those lowest risk stormwater works exempted from both Environmental Compliance Approvals and this new registry be removed for consistency of approach to administrative burden versus proposed risk. A policy asking MECP to prioritize Significant Drinking Water Threat activities in their audit processes is also recommended.

### Recommendations:

**It Is Therefore Recommended That** presentation g) and Staff Report SPC2.7 regarding Update on Stormwater Approvals - EASR be received for information; and

**Further That** the policy recommendations to add policy MON-7 and remove and replace policy SEWG(a)-2 be approved.

### Prepared by:

Mystaya Touw, Sourcewater Protection Specialist

### Recommended by:

Bill Thompson, Project Manager, South Georgian Bay – Lake Simcoe Source Protection Region