

## AGENDA

### Mississippi-Rideau Source Protection Committee

**Date:** September 1, 2011

**Time:** 4 pm

**Location:** Rosedale Hall – Township of Montague  
657 Rosedale Road South, Montague

| Welcome and Introductions |                                                                                                                                                                                                                                                                                                                                  |                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>1.0</b>                | a. Agenda Review<br>b. Notice of Proxies<br>c. Adoption of the Agenda (D)<br>d. Declarations of Interest<br>e. Approval of Minutes – August 4, 2011 (D)<br>▶ draft minutes attached as a separate document<br>f. Status of Action Items – Staff Report Attached (D) .....<br>g. Correspondence – Staff Report Attached (D) ..... | <b>Pg.</b><br><br><br><br><br><br><br>1<br>3 |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Chair Stavinga</i>                        |
| Source Protection Plan    |                                                                                                                                                                                                                                                                                                                                  |                                              |
| <b>2.0</b>                | <b>Source Protection Plan Development</b> – Staff Report Attached (D) .....<br>Staff will update members on policy development progress and next steps                                                                                                                                                                           | 14                                           |
| <b>3.0</b>                | <b>Draft Policy Ideas</b> – Staff Reports Attached (D)<br>Members will consider approving draft policy concepts for the following drinking water threats and directing staff to undertake early engagement:                                                                                                                      |                                              |
|                           | a. ASM and NASM (Agricultural and Non-Agricultural Source Material) and Outdoor Livestock Areas .....<br>b. Commercial Fertilizer .....<br>c. Pesticide .....<br>d. Aquaculture .....                                                                                                                                            | 21<br>31<br>39<br>47                         |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Sommer Casgrain-Robertson</i>             |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Sommer Casgrain-Robertson</i>             |
| Other                     |                                                                                                                                                                                                                                                                                                                                  |                                              |
| <b>4.0</b>                | <b>Community Outreach</b> – Staff Report Attached (D) .....<br>Members & staff report on past activities and upcoming events and opportunities                                                                                                                                                                                   | 53                                           |
| <b>5.0</b>                | <b>Other Business</b>                                                                                                                                                                                                                                                                                                            |                                              |
| <b>6.0</b>                | <b>Member Inquiries</b>                                                                                                                                                                                                                                                                                                          |                                              |
| <b>7.0</b>                | <b>Next Meeting</b> – October 6, 2011<br>1 pm<br>Rideau Valley Conservation Authority<br>3889 Rideau Valley Drive, Manotick                                                                                                                                                                                                      |                                              |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Chair Stavinga</i>                        |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Chair Stavinga</i>                        |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Chair Stavinga</i>                        |
|                           | <b>October meeting may be cancelled – next meeting could be November 3</b>                                                                                                                                                                                                                                                       |                                              |
| <b>8.0</b>                | <b>Adjournment</b>                                                                                                                                                                                                                                                                                                               |                                              |
|                           |                                                                                                                                                                                                                                                                                                                                  | <i>Chair Stavinga</i>                        |

**(I) = Information (D) = Decision**

**Delegations:** If you wish to speak to an item on the Agenda please contact Sommer Casgrain-Robertson before the meeting ([sommer.robertson@mrsourcewater.ca](mailto:sommer.robertson@mrsourcewater.ca) or 613-692-3571 / 1-800-267-3504 x 1147)

## 1.0 f) STATUS OF ACTION ITEMS

**Date:** August 23, 2011  
**To:** Mississippi-Rideau Source Protection Committee  
**From:** Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region

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### **Recommendation:**

That the Mississippi-Rideau Source Protection Committee receive the Status of Action Items for information.

### **Staff & Chair Action Items:**

| <b>Issue</b> |                                                       | <b>Action</b>                                                                                                          | <b>Lead</b>                     | <b>Status</b>                                                                                                                                                                                                                                                           |
|--------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1            | Mine Tailings                                         | A member indicated that mine tailings ponds were exempt from requiring a Waste Certificate of Approval                 | Mary Wooding                    | <b>In Progress</b><br>MOE will confirm whether or not mine tailing ponds require a Waste Certificate of Approval – this will affect what policy tools can be used to manage or prohibit them.                                                                           |
| 2            | O. Reg 903                                            | A member suggested O. Reg 903 be added as applicable law under Ontario's Building Code                                 | Patricia Larkin                 | <b>In Progress</b><br>Staff and members are working on a draft motion to be considered by the Committee at a future meeting                                                                                                                                             |
| 3            | Vacant City of Ottawa seat on SPC                     | Fill the vacancy on the MRSPC                                                                                          | City of Ottawa staff            | <b>In Progress</b><br>City of Ottawa staff are in the process of filling this seat                                                                                                                                                                                      |
| 4            | Ottawa River Watershed Inter-Jurisdictional Committee | Encourage MOE to take the lead role in establishing an Ottawa River watershed inter-jurisdictional committee           | Chair Stavinga & Brian Stratton | <b>Ongoing</b><br>Baird completed a proposal to revise Ottawa's IPZ-2s and delineate IPZ-1s and IPZ-2s for Gatineau's intakes. Chair Stavinga has provided this proposal to the MOE for their preliminary review and input.                                             |
| 5            | Uranium                                               | MVC and local Health Units work together to raise public awareness about naturally occurring uranium in drinking water | Sommer Casgrain-Robertson       | <b>In Progress</b><br>Health Canada released a "Uranium and Drinking Water" fact sheet. It is available on their website at <a href="http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/uranium-eng.php">http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/uranium-eng.php</a> |

| <b>Issue</b> |                     | <b>Action</b>                                                                                         | <b>Lead</b>               | <b>Status</b>                                                                           |
|--------------|---------------------|-------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------|
| 6            | Compensation Models | Staff to collect other compensation models (e.g. Ottawa wetland policy, Alternate Land Use Services). | Sommer Casgrain-Robertson | <b>In Progress</b><br>Staff will build this in to the Source Protection Plan work plan. |

#### **MRSPC Member Action Items:**

| <b>Issue</b> |                                                                                                                                    | <b>Action</b>                                                                                                                                                  | <b>Lead</b>    | <b>Status</b>  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| 1            | Members were concerned that attendance might be low at public open houses and groups who should be involved in the process are not | Members were asked to provide Sommer with contact information for groups they feel should be involved in the process – they will be added to our mailing list. | All Members    | <b>Ongoing</b> |
| 2            | OFEC Conference Calls & Training Sessions                                                                                          | Richard Fraser will provide the MRSPC with updates on OFEC conference calls & training sessions                                                                | Richard Fraser | <b>Ongoing</b> |
| 3            | Community Outreach opportunities                                                                                                   | Members to notify Sommer of potential events and opportunities to engage the public about source protection                                                    | All members    | <b>Ongoing</b> |

## 1.0 g) CORRESPONDENCE

**Date:** August 23, 2011  
**To:** Mississippi-Rideau Source Protection Committee  
**From:** Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region

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### Recommendation

That the Mississippi-Rideau Source Protection Committee receive the Correspondence for information.

### Attached Correspondence:

| Correspondence From: |                                               | Regarding:                                                                                                                               | Response:                                                                                                                                      |
|----------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Ministry of the Environment<br>August 4, 2011 | Assessment Report for the Mississippi Valley Source Protection Area has been approved                                                    | Draft letter of response attached for members consideration.                                                                                   |
| 2                    | Ministry of the Environment<br>August 4, 2011 | Assessment Report for the Rideau Valley Source Protection Area can be amended and resubmitted by August 19, 2011 for review and approval | Staff submitted an amended Assessment Report to the MOE on August 17, 2011<br><br>Draft letter of response attached for members consideration. |

Ministry of  
the Environment

Source Protection Programs  
Branch

14<sup>th</sup> Floor  
40 St. Clair Ave. West  
Toronto ON M4V 1M2

Ministère de  
l'Environnement

Direction des programmes de protection  
des sources

14<sup>e</sup> étage  
40, avenue St. Clair Ouest  
Toronto (Ontario) M4V 1M2



Log: ENV1174IT-2010-310

August 4, 2011

Mr. Mark Burnham, Chair  
Mississippi Valley Source Protection Authority  
4175 Hwy 511, RR#2  
Lanark, ON K0G 1K0

Ms. Janet Stavinga, Chair  
Mississippi-Rideau Source  
Protection Committee  
Box 599, 3889 Rideau Valley Dr.  
Manotick, ON K4M 1A5

Dear Mr. Burnham and Ms. Stavinga:

Thank you for the submission of your proposed Assessment Report for the Mississippi Valley Source Protection Area received on December 22, 2010. I have completed my review of the proposed Assessment Report (AR) and in accordance with my authority under Section 17(2) of the Clean Water Act, I hereby approve the proposed Assessment Report, as submitted.

As per section 20 of the Clean Water Act, the Source Protection Authority (SPA) shall ensure that the approved proposed AR, as submitted, is made available to the public as soon as reasonably possible on the Internet and in any other manner the Authority considers appropriate.

Also as per the Clean Water Act and General Regulation, your Source Protection Plan is due to be submitted to the Minister of the Environment on August 20, 2012, the fifth (5<sup>th</sup>) anniversary of the date that the chairs of the source protection committees were appointed.

In addition, at this time I would like to advise you that all final water quality and quantity AR data must be uploaded as follows:

- Final water **quality** data is to be uploaded to ARDB@CAMaps within four (4) months of the date on this letter; and
- Final water **quantity** data is to be uploaded to the Ministry of Natural Resources data base following further direction, which will be provided.

...2

In the Updated Assessment Report (UAR) workplan submitted to the ministry on October 1, 2010 by the Source Protection Committee (SPC), the following tasks for the Mississippi Valley Source Protection Area were proposed to be completed:

- Future Lanark Water Supply (planned system);
- Review of IPZ-3 Vulnerability Scoring for Ottawa Intakes; and
- On-going Confirmation of Significant Threat Counts.

A letter dated February 11, 2011 was submitted to the ministry from the Project Managers providing additional details relating to the UAR. I understand that the work associated with the planned Lanark drinking water system (DWS) will be included in a future UAR once the construction of the system is confirmed. I also understand that the SPA will not be proceeding with the review of the IPZ-3 vulnerability scoring for the Ottawa intakes at this time.

From these communications, I also understand that the following tasks have now been identified by the SPC/A as available to be included in an UAR:

- Updates to Significant Threat Counts as a result of public consultation on the proposed AR (i.e. update the number of significant drinking water threats (SDWTs); and
- Minor corrections/oversights (e.g. figure titles, sentence revisions, acronym, reference corrections, etc.).

The minor corrections/oversights and the inclusion of updated threats enumeration are not imperative tasks that warrant an UAR. Section 19 of the Clean Water Act and section 18 of the General Regulation 287/07, set out the criteria and situations where the SPA may update their AR once it is approved by the Director; specifically if the SPA becomes aware that the AR is no longer accurate or complete. This section can be interpreted to include information that has the potential to change the results/conclusions of the AR. These minor edits do not meet such criteria. Policies in the source protection plan must be developed for any activity that is or would be a significant drinking water threat regardless of the number of SDWTs identified in the AR. The number of SDWTs may impact the policy choice of the SPC, and therefore, any updated information on existing threats can be provided directly to the SPC for their consideration. If this impacts the decisions of the SPC, then this can be recorded in the explanatory document for the SPP.

Since there are no imperative updated tasks to be completed as part of the UAR for this round of planning for the Mississippi Valley Source Protection Area, the ministry is advising that the SPC/SPA defer submitting a UAR until a time in the future when there are valid updates to the AR (i.e. the technical work associated with the planned Lanark DWS is completed and ready for inclusion in the AR).

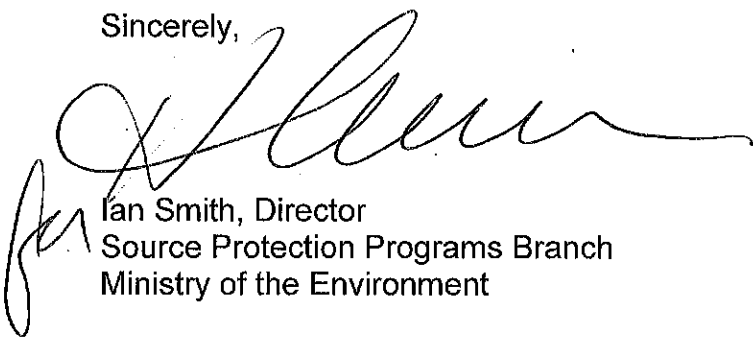
On June 21, 2011, the SPA submitted through the Liaison Officer a "Summary of Changes" document that outlines many minor revisions and administrative revisions the SPA would like to make in the AR, including some revisions requested in the February 11, 2011 letter. These requested changes also do not legislatively warrant returning the Assessment Report for amendment at this time. I understand that the SPA feels that these revisions are important for the readability of the AR. Should the SPA/SPC wish to describe any subsequent factual updates or revisions to persons or bodies during policy development, this can be accomplished through an information sheet to support any policy discussions.

Additionally the ministry's review of the proposed AR also identified other minor inconsistencies that do not impact the number of significant drinking water threats or the vulnerable areas but would provide better clarity for the technical work undertaken. These will be provided separately by your Liaison Officer and should only be considered in a future round of planning and can also be described to persons or bodies during policy development through an information sheet should the SPC feel that is necessary.

Once the AR is approved, the SPA/C cannot produce a "revised" version of the approved AR for distribution to the public. This would be non-compliant with the legislation that sets out when an AR can be updated and by what process. From communications between the Liaison Officer and staff at the SPA and as stated in the Summary of Changes document submitted on June 21, 2011, I also understand the SPA would like to reference within the AR the Accompanying Document titled "A Summary of Concerns Outside the Scope of the Assessment Reports". It is not appropriate to include or reference this document within the AR nor release it publicly. It is the responsibility of the Minister appointed Chair of the SPC and SPA to use the provincial funding granted to the SPA to develop the AR in accordance with the legislation and technical rules. It is also the responsibility of the Chair to report to the ministry any challenges for consideration. Therefore, I strongly advise you to provide this document separately for my review so that the concerns can be assessed to improve the program and legislative requirements for future rounds of planning. I thank you for your dedication to identifying possible improvements for the program in the future.

Thank you for your work to protect Ontario's source of drinking water. I look forward to receiving the Source Protection Plan for the Mississippi Valley Source Protection Area on August 20, 2012. If you have any questions, please feel free to contact your Liaison Officer.

Sincerely,



Ian Smith, Director  
Source Protection Programs Branch  
Ministry of the Environment

cc: Brian Stratton, Project Manager, Rideau Valley Source Protection  
Authority.  
Sommer Casgrain-Robertson, Project Manager, Rideau Valley Source  
Protection Authority  
Paul Lehman, General Manager, Mississippi Valley Conservation  
Authority  
Keith Willson, Manager, Source Protection Approvals, MOE  
John Westlake, Supervisor (A), Source Protection Implementation, MOE  
Katie Fairman, Manager (A), Source Protection Planning, MOE  
Melanie Ward, Group Leader, Source Protection Approvals, MOE  
Mary Wooding, Liaison Officer, Source Protection Implementation, MOE  
Mike Garraway, Ministry of Natural Resources  
Charley Worte, Conservation Ontario



Log: ENV1174IT-2010-311

August 4, 2011

Mr. Alan Arbuckle, Chair  
Rideau Valley Source Protection Authority  
Box 599, 3889 Rideau Valley Dr.  
Manotick, ON K4M 1A5

Ms. Janet Stavinga, Chair  
Mississippi-Rideau Source Protection  
Committee  
Box 599, 3889 Rideau Valley Dr.  
Manotick, ON K4M 1A5

Dear Mr. Arbuckle and Ms. Stavinga:

Thank you for the submission of your proposed Assessment Report for the Rideau Valley Region Source Protection Area received on December 22, 2010. I have completed my review of the proposed Assessment Report (AR). In accordance with my authority under Section 17(2) of the Clean Water Act, I hereby request that the Source Protection Authority (SPA) amend the AR for the Rideau Valley Source Protection Area according to this letter, in consultation with ministry staff, and submit to me by August 19, 2011.

I understand that the work on the Kemptville Drinking Water System (DWS) was completed in May 2011 and that the work on the Merrickville DWS is expected to be completed by the end of December 2011. Therefore, amend the AR accordingly to reflect updates related to these Ontario Drinking Water Stewardship Program (ODWSP) funded projects:

- As the work has been completed for the Kemptville DWS and significantly changes the conclusions of the Rideau Valley Source Protection Area AR, I request that the SPA amend the AR to update the relevant WHPA vulnerability and threats assessment sections.
- As the work for the Merrickville DWS has not been completed yet, consider adding some information to the AR as to the status of the work. Please work closely with the Liaison Officer to determine the appropriate timelines for submission of the updates upon project completion for the Merrickville system. These timelines will be dependent on the Source Protection Plan consultation process timelines.

In the Updated Assessment Report (UAR) workplan submitted to the ministry on October 1, 2010 by the Source Protection Committee (SPC), the following tasks for the Rideau Valley Source Protection Area were proposed to be completed:

- Review of Westport GUDI Designation;
- Review of IPZ-3 Vulnerability Scoring for Ottawa Intakes
- On-going Confirmation of Significant Threat Counts; and
- Possible Significant Threats Reduction as a Result of the Ontario Drinking Water Stewardship Program (ODWSP) Response Program.

...2

A letter dated February 11, 2011 was submitted to the ministry from the Project Managers providing additional details relating to the UAR. From this letter and additional discussions between the Liaison Officer and the SPA, I understand that the SPC/SPA will not be proceeding with the technical work for the Review of the Westport GUDI Designation and Review of the IPZ-3 Vulnerability Scoring for Ottawa Intakes.

In addition to the Kemptville and Merrickville DWS task that I have directed for amendments, I also understand from these communications that the following tasks have now been identified as available to be included within the AR this round of planning:

- Updates to Significant Threat Counts as a result of public consultation on the proposed AR (i.e. update the number of significant drinking water threats (SDWTs); and
- Minor corrections/oversights (e.g. figure titles, sentence revisions, acronym, reference corrections, etc.).

The minor corrections/oversights and the inclusion of updated threats enumeration are not imperative tasks that would trigger or warrant an amendment or update to the AR. However, as the AR is being amended at this time, the SPA can determine whether to include these revisions now or in future rounds of planning.

Furthermore, on June 21, 2011, the SPA submitted through the Liaison Officer a "Summary of Changes" document that outlines many minor revisions and administrative revisions the SPA would like to make in the AR, including many revisions also requested in the February 11, 2011 letter. As the AR is being amended at this time, the SPA can determine whether to include these revisions now or in future rounds of planning.

The ministry's review of the proposed AR identified minor inconsistencies that do not impact the number of significant drinking water threats or the vulnerable areas but would provide greater clarity of the technical work. These comments will be provided separately from this letter by your Liaison Officer and it is up to the SPA to determine if they wish to make these changes now during amendment of the AR or in future rounds of planning.

Once the AR is revised according to this letter and if there are persons or bodies impacted by the changes, the SPC/SPA shall consult with those impacted by the changes in an appropriate manner before resubmitting the amended AR in accordance with the Act and provide proof thereof with the resubmitted AR.

From communications between the Liaison Officer and staff at the SPA and as stated in the Summary of Changes document submitted on June 21, 2011, I also understand the SPA would like to reference within the AR the Accompanying Document titled "A Summary of Concerns Outside the Scope of the Assessment Reports". It is not appropriate to either include or reference this document within the AR nor is it appropriate to release it publicly. It is the responsibility of the Minister appointed Chair of

the SPC and SPA to use the provincial funding granted to the SPA to develop the AR in accordance with the legislation and technical rules. It is also the responsibility of the Chair to report to the ministry any challenges for consideration. Therefore, I strongly advise you to provide this document separately for my review so that the concerns can be assessed to improve the program and legislative requirements for future rounds of planning. I thank you for your dedication to identifying possible improvements for the program in the future.

The SPA shall include with the submitted amended AR a memo outlining the changes made to the AR, as per the directions in this letter and any other major changes that are made, including chapter references in the AR where changes were made. The amended AR submission to the ministry should include one (1) hardcopy, plus one (1) electronic copy for the ministry's review.

Furthermore, I understand that the City of Ottawa has a planned groundwater system, the Richmond Subdivision. In the future, the SPC may propose changes to the Terms of Reference as per Ontario Regulation 287/07, section 9, which identifies circumstances where amendments may be proposed. Please work with your Liaison Officer to determine when it is feasible to make this amendment.

If you have any questions, please feel free to contact your Liaison Officer. Thank you for your work to protect Ontario's sources of drinking water.

Sincerely,



Ian Smith, Director  
Source Protection Programs Branch  
Ministry of the Environment

cc: Brian Stratton, Project Manager, Rideau Valley Source Protection Authority  
Sommer Casgrain-Robertson, Project Manager, Rideau Valley Source Protection Authority  
Dell Hallett, General Manager/Secretary Treasurer, Rideau Valley Conservation Authority  
Paul Lehman, General Manager, Mississippi Valley Conservation Authority  
Keith Willson, Manager, Source Protection Approvals, MOE  
John Westlake, Supervisor (A), Source Protection Implementation, MOE  
Katie Fairman, Manager (A), Source Protection Planning, MOE  
Melanie Ward, Group Leader, Source Protection Approvals, MOE  
Mary Wooding, Liaison Officer, Source Protection Implementation, MOE  
Mike Garraway, Ministry of Natural Resources  
Charley Worte, Conservation Ontario

Ms. Heather Malcolmson  
Acting Director, Source Protection Programs Branch  
Drinking Water Management Division  
Ontario Ministry of the Environment  
40 St. Clair West, 14<sup>th</sup> Floor  
Toronto, ON M4V 1M2

September 26, 2011

**RE:           Assessment Reports and Accompanying Summary of Public Concerns**

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Dear Ms. Malcolmson,

On behalf of our Source Protection Committee and Source Protection Authorities we would like to commend your staff on completing their review of our proposed Assessment Reports. Your review and impending approval of these reports marks a major milestone in the source protection program and is a great achievement for both your ministry and our region.

**Assessment Reports**

It was rewarding for our region to learn that your review of our proposed Assessment Reports found them to be approvable. The quality of our proposed Assessment Reports directly benefited from the willingness of MOE staff to make time to informally review and comment on our preliminary draft and draft versions early in 2010. We would also like to recognize the efforts of our Liaison Officer, Mary Wooding, who continuously relayed our questions and concerns to MOE staff and sought answers and guidance that helped our staff and Committee move forward.

Following your review, we were very pleased to be given the opportunity to resubmit an amended version of the Rideau Valley assessment report allowing us to capture corrections and refinements in the final approved version. We will look forward to being able to capture these same improvements in the next version of the Mississippi Valley assessment report during the next round of source protection planning.

**Accompanying Document**

As noted in our December 21, 2010 submission package, our Source Protection Committee prepared an accompanying document to their Assessment Reports. This document simply summarizes 13 concerns that our Committee became aware of while preparing their Assessment Reports, concerns that could not be captured in the reports themselves because they fall outside the legislative scope of the assessment reports. Both electronic and hard copy versions of this document were included in our December, 2010 submission package. As requested, an additional copy has been attached to this letter.

In your letter to us dated August 4, 2011 you express concerns about this document. You note that it is the responsibility of our Source Protection Committee Chair to report challenges to the ministry and that it would be inappropriate to release this document publicly. Our accompanying document was written to summarize any concerns collected during the development of our Assessment Reports that could not be addressed in the reports themselves. Over the past five years, our Chair and Chairs from other regions, have brought each of these concerns to the attention of the MOE as the issue emerged. The purpose of the accompanying document was to simply consolidate all of these concerns in one place to be transparent with the public and to facilitate the review and consideration of these concerns, as the source protection process evolves, or by other groups, agencies or government ministries where appropriate.

We ask that your staff review our accompanying document and reconsider their concerns as the document is simply a neutral summary of previously discussed concerns. It is not an open criticism or judgment of the current source protection process. The concerns outlined in the document are:

**1. Surface Water Technical Rules**

- a. Local Vulnerability Scoring Methodology
- b. Precautionary Approach
- c. Aging Infrastructure
- d. Historical Drinking Water Quality
- e. Source Vulnerability Factor

**2. Ottawa River**

- a. Ottawa River Watershed
- b. City of Ottawa's Intakes
- c. Chalk River Laboratories and Tritium
- d. Water Budget

**3. Implementation Costs**

**4. Private Wells and Intakes**

- a. Protecting Regional Groundwater - HVAs and SGRAs
- b. Designating "Other" Systems

**5. Uranium**

**6. Septage and Sewage Biosolid Spreading**

**7. Well Construction, Maintenance and Abandoning**

**8. Minimum Lot Size on Private Servicing**

**9. Spill Response**

- a. Spill Response Awareness
- b. New Transportation Infrastructure
- c. Travel Time of IPZ-2

**10. Geothermal Systems**

**11. Wildlife**

Please contact Sommer Casgrain-Robertson at 613-692-3571 or 1-800-267-3504 ext. 1147 or by email at [sommer.robertson@mrsourcewater.ca](mailto:sommer.robertson@mrsourcewater.ca) should you have any outstanding questions or concerns.

Sincerely,

Janet Stavinga  
Chair,  
Mississippi-Rideau Source Protection Committee

Mark Burnham  
Chair, Mississippi Valley Source Protection Authority

Alan Arbuckle  
Chair, Rideau Valley Source Protection Authority

Cc. *A Summary of Concerns Outside the Scope of the Assessment Reports*

## 2.0 Source Protection Plan Progress

**Date:** August 23, 2011  
**To:** Mississippi-Rideau Source Protection Committee  
**From:** Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region

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### **Recommendation 1:**

That the Mississippi-Rideau Source Protection Committee receive the Source Protection Plan Progress staff report for information.

### **Recommendation 2:**

That the Mississippi-Rideau Source Protection Committee cancel their October 6, 2011 meeting while early engagement and public consultation is underway on draft policy concepts.

## **Background**

Across Ontario, Source Protection Committees (SPC) are working with municipalities, farmers, property owners, businesses, industries, First Nations, environmental groups, Provincial Ministries and the general public. Together they are developing policies to prevent the contamination and overuse of lakes, rivers and aquifers that supply drinking water.

### **2006 to 2010**

Source Protection Committees completed **Assessment Reports** that:

- Mapped local sources of drinking water (primarily municipal drinking water);
- Determined how vulnerable these sources could be to contamination; and
- Identified types of land use activities that could pose a contamination risk

### **2011 to 2012**

Source Protection Committees must now develop **Source Protection Plans**:

- Plans must contain policies that protect local sources of drinking water (primarily municipal drinking water)
- Policies will be implemented in areas where drinking water sources are vulnerable
- Policies will address those land use activities that pose a contamination risk

## **Where Will Policies Apply?**

Land use activities can only be considered drinking water threats if they are taking place in a vulnerable area. There are four types of vulnerable areas:

- Wellhead Protection Areas
  - vulnerable area around a municipal well
- Intake Protection Zones
  - vulnerable area upstream of a municipal surface water intake
- Highly Vulnerable Aquifers
  - Areas where groundwater is vulnerable to surface contaminants
- Significant Groundwater Recharge Areas
  - Areas where high amounts of groundwater infiltration takes place

Land use activities can only be considered a significant drinking water threat if they are taking place in the most vulnerable parts of a:

- **Wellhead Protection Area;** or
- **Intake Protection Zone.**

These are typically areas closest to a municipal well or intake.

Only 3% of the Mississippi Rideau region is considered vulnerable enough to produce significant threats. Maps of these areas are in the Assessment Reports which are available from staff or on our website at [www.mrsourcewater.ca](http://www.mrsourcewater.ca) (Assessment Report page).

Land use activities can be considered moderate or low drinking water threats in the four vulnerable areas:

- Wellhead Protection Areas
- Intake Protection Zones
- Highly Vulnerable Aquifers
- Significant Groundwater Recharge Areas

Approximately 89% of the Mississippi Rideau region is considered highly vulnerable aquifers which can produce moderate and low threats. Maps of this area are in the Assessment Reports which are available from staff or on our website at [www.mrsourcewater.ca](http://www.mrsourcewater.ca) (Assessment Report page).

Source Protection Plans:

- Must contain policies to address significant drinking water threats; and
- May contain policies to address moderate and low drinking water threats.

## What is Considered a Threat?

The province has determined that under certain circumstances the following land use activities can be considered drinking water threats if occurring in certain vulnerable areas:

- **Waste** disposal sites (including the application of untreated septage to land)
- **Sewage** storage, treatment, transmission or disposal
- **Agricultural source material** (e.g. manure) storage, management or application
- **Non-agricultural source material** (e.g. biosolids) storage, handling or application
- **Farm animal** pasturing, grazing, outdoor confinement areas or farm yards
- **Fertilizer** storage, handling or application
- **Pesticide** storage, handling or application
- **Fuel** storage or handling
- **Dense Non-aqueous Phase Liquids** (DNAPLSs) storage or handling
- **Organic solvents** storage or handling
- **Road salt** storage, handling or application
- **Snow storage**
- **Airplane de-icing**

To be a threat most of these activities must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. These threat criteria or “circumstances” are listed in provincial tables accessible on the “Assessment Report” page of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca))

## What are the Policy Tools?

While most source protection policies will manage land use activities that have the potential to contaminate drinking water, prohibition can be used as a tool of last resort to address significant drinking water threats. All policies will undergo thorough public consultation at various draft stages.

Policies to address drinking water threats can use one or more of the following tools. Some tools can only be used to address significant drinking water threats.

| Policy Tools                                   | Address Significant Threats | Address Moderate & Low Threats |
|------------------------------------------------|-----------------------------|--------------------------------|
| Education & Outreach                           | √                           | √                              |
| Incentives                                     | √                           | √                              |
| Other*                                         | √                           | √                              |
| Land Use Planning                              | √ Must conform              | √ Have regard for              |
| Prescribed Instruments                         | √ Must conform              | √ Have regard for              |
| Risk Management Plans                          | √                           | X                              |
| Prohibition<br>(under <i>Clean Water Act</i> ) | √                           | X                              |

\* "Other" policy tools include:

- Specify Actions (that would help implement the Plan or achieve it's objectives)
- Stewardship Programs, Best Management Practices, Pilot Programs, Research

## How Will Policies Be Developed?

In the Mississippi-Rideau region, source protection plans will be developed in four stages.

### Step 1: Develop Draft Policy Ideas

#### Municipal Staff Working Group

- We invited all municipal staff in our region to participate in a series of working group meetings (December, January, February, March and June)
- At these meetings municipal staff discussed policy ideas for all 13 land use activities that could pose a threat to sources of drinking water.

#### "Local Experts"

- Many of the ideas generated by the municipal staff working group were reviewed by local people who are knowledgeable about the land use activity that would be affected (e.g. fuel suppliers, farmers, septic inspectors)
- They provided information about how the land use activity may already be regulated and how reasonable, practical and implementable the policy idea would be.

#### Source Protection Committee

- Ideas generated by the municipal staff working group were also informally reviewed by some Committee members
- They provided preliminary input and flagged knowledge gaps that would need to be known before the Committee could finalize draft policy concepts.

## Step 2: Develop Draft Policy Concepts

### Source Protection Committee

- Over the past few months the Source Protection Committee has been developing draft policy concepts
- The goal is to solicit input on these concepts early in the process so that input can shape the policies developed for the draft Source Protection Plan.

### MOE

- Draft policy concepts are provided to MOE staff for a preliminary informal review
- This process red flags any potential compliance issues

### Source Protection Authorities

- All draft policy concepts are presented to the Source Protection Authorities for their review and comment.

### Municipalities

- In September, all municipalities will receive a complete set of draft policy concepts
- The package will highlight how the policies could affect the municipality
- Municipalities will be asked to review the policies and provide input. Specifically whether they endorse or have suggestions for the policies and whether they are capable and willing to undertake any roles or responsibilities identified for them.
- Staff will be available to meet with municipal staff and/or members of council to discuss the draft policy concepts
- All municipalities have also been invited to our Municipal Working Group meeting on October 20, 2011. This meeting will focus on review the draft policy concepts and soliciting municipal input.
- Municipalities will also be invited to our public open houses planned for this fall
- ❖ Source Protection Committee and Authority members and MOE will be notified prior to these municipal packages being mailed (they will receive a copy of the generic letter)

### Policy Implementers

- In September, all other agencies identified as potential policy implementers (e.g. government ministries, health units, conservation authorities) will also receive relevant draft policy concepts for review and comment.
- Potential policy implementers will also be invited to sit down with our staff to discuss the draft policy concepts and will be invited to our public open houses
- ❖ Source Protection Committee and Authority members and MOE will be notified prior to these implementer packages being mailed (they will receive a copy of the generic letter and the distribution list)

### Affected Property Owners

- In September, all property owners who may be affected by a policy will also receive information about that policy concept (general intent of the policy).
- Property owners will be encouraged to provide comments. Specifically whether they support the policy or have suggestions, what the potential impact of the policy would be on them, and what current rules or requirements already govern their land use activity.
- Property owners will be invited to attend our public open houses in the fall and/or contact our staff if they wish to discuss the draft policy concepts
- ❖ Municipalities will be notified prior to these letters being mailed (they will receive a copy of the generic letter along with a list of the mailing addresses receiving it)
- ❖ Source Protection Committee and Authority members and MOE will be notified prior to these letters being mailed (they will receive a copy of the generic letter)

#### General Public, Sector Associations, Others

- Information will be sent to various sector associations and industries to solicit their input on draft policy concepts. They will also be invited to attend our open houses
- Open houses will be advertised and will provide the general public with an opportunity to provide comments

### **Step 3: Develop Draft Source Protection Plans**

#### Source Protection Committee

- The Source Protection Committee will review and consider all comments received on their draft policy concepts and they will revise policies to address as many comments as possible.

#### General Public

- Draft Source Protection Plans will then be posted for a 35 day public comment period.
- Public open houses will also be held to solicit input (they will be advertised).

#### Municipalities, Affected Property Owners and Policy Implementers

- All municipalities, potentially affected property owners and potential policy implementers will receive a letter informing them that draft Source Protection Plans have been posted for public review and comment. They will be invited to submit comments and attend the public open houses.
- ❖ Source Protection Committee and Authority members and MOE will be notified when these letters are mailed (they will receive a copy of the generic letter)

### **Step 4: Develop Proposed Source Protection Plans**

#### Source Protection Committee

- The Source Protection Committee will review and consider all comments received on their draft Source Protection Plans and will revise policies to address as many comments as possible.

#### General Public

- Proposed Source Protection Plans will then be posted for a 30 day public comment period.(this will be advertised)

#### MOE

- All comments received on the proposed Source Protection Plans will be given to the MOE for their review and consideration when reviewing the Plans.
- It is anticipated that Plans will be approved in 2013 after which policy implementation will begin.

## **Policy Development Progress**

Below is a schedule showing the main policy development stages. Attached is a chart showing policy development progress.

|                                  |   | 2011 |   |   |   |   |   |   |   |   |   |   |   | 2012 |   |   |   |   |   |   |   |
|----------------------------------|---|------|---|---|---|---|---|---|---|---|---|---|---|------|---|---|---|---|---|---|---|
|                                  | D | J    | F | M | A | M | J | J | A | S | O | N | D | J    | F | M | A | M | J | J | A |
| Develop Policy Ideas             |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |
| Develop Policy Concepts          |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |
| Solicit Input                    |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |
| Consider Input / Revise Policies |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |
| Draft Plans                      |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |
| Proposed Plans                   |   |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |

## Policy Cross Referencing – The Big Picture

At our November Source Protection Committee meeting, a variety of charts and summaries will be used to compare all of the draft policy concepts in relation to one another to ensure the policies as a whole are reasonable and effective. The cross referencing will look at:

- Potential Policy Effect (encourage, manage or prohibit activities)
- Potential Policy Tools (e.g. education, land use planning, risk management plan)
- Potential Policy Implementers (e.g. provincial ministries, health units, municipalities)
- Potential Municipal Responsibilities (for each individual municipality)
- Potential Policies Compared to Other Regions

### Attachments:

- Draft Policy Concepts: Policy Development Progress

**Policy Development Progress**  
**Dated: August 24, 2011**

| Drinking Water Threats |                                                                                    | Municipal Working Group<br>(generate policy ideas) | Sector Experts<br>(generate policy ideas) | SPC Working Group<br>(generate policy ideas) | Draft Policy Concept | SPA Meeting<br>(review draft policy concepts) | MOE<br>(review draft policy concepts) | Municipalities<br>(review draft policy concepts) | Policy Implementers<br>(review draft policy concepts) | Affected People<br>(review draft policy concepts) | Municipal Working Group<br>(review draft policy concepts) | Sectors, Public, Other<br>(review draft policy concepts) | SPC<br>Review Comments / Revise Policies | Draft Spp |
|------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------|-----------------------------------------------|---------------------------------------|--------------------------------------------------|-------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|------------------------------------------|-----------|
| Waste                  | Application of untreated septage to land                                           | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     | mid September to mid November, 2011              |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage, Treatment and Discharge of Tailings from Mines                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Landfarming of Petroleum Refining Waste                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Liquid Industrial Waste Injection into a Well                                      | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | PCB Waste Storage                                                                  | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Landfilling (Hazardous Waste)                                                      | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Landfilling (Municipal Waste)                                                      | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Landfilling (Solid Non Hazardous Industrial or Commercial)                         | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage of Hazardous Waste at Disposal Sites                                       | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage of Wastes described in clauses...of the definition of hazardous waste      | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Sewage                 | Discharge of Untreated Stormwater from a Stormwater Retention Pond                 | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Sanitary Sewers and Related Pipes                                                  | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Sewage Treatment Plant Effluent Discharges Including Lagoons                       | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage of Sewage (e.g. Treatment Plant Tanks)                                     | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Combined Sewer Discharge from a Stormwater Outlet to Surface Water                 | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Sewage Treatment Plant Bypass Discharge to Surface Water                           | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Industrial Effluent Discharge                                                      | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Septic System / Holding Tank - large                                               | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Septic System / Holding Tank - small                                               | ✓                                                  | ✓                                         | n/a                                          | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| ASM                    | Application                                                                        | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage                                                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| NASM                   | Application                                                                        | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Handling and Storage                                                               | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Fertilizer             | Application                                                                        | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage                                                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Pesticide              | Application                                                                        | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Handling and Storage                                                               | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Road Salt              | Application                                                                        | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Handling and Storage                                                               | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Snow                   | Storage                                                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Fuel                   | Handling and Storage - fuel oil                                                    | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Handling and Storage - liquid fuel                                                 | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| DNAPLs                 | Handling                                                                           | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage                                                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Organic Solvent        | Handling                                                                           | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Storage                                                                            | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| De-Icing               |                                                                                    | ✓                                                  | n/a                                       | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
| Livestock              | Management or Handling of ASM Generation (grazing and pasturing)                   | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |
|                        | Management or Handling of ASM Generation (farm-yards or outdoor confinement areas) | ✓                                                  | ✓                                         | ✓                                            | ✓                    | ✓                                             | ✓                                     |                                                  |                                                       |                                                   |                                                           |                                                          |                                          |           |

|   |                                                             |
|---|-------------------------------------------------------------|
| ✓ | Task completed                                              |
| ✓ | Task to be completed between August 4 and September 1, 2011 |
| ✓ | Task to be completed by September 22, 2011                  |

**3.0a Draft Policy Ideas:  
Agricultural and Non-Agricultural Source Material,  
Grazing, Pasturing, Outdoor Confinement Areas and  
Farm Yards**

**Date: August 23, 2011**  
**To: Mississippi-Rideau Source Protection Committee**  
**From: Sommer Casgrain-Robertson, Co-Project Manager**  
**Mississippi – Rideau Source Protection Region**

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**Recommendation 1:**

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for agricultural and non-agricultural source material, grazing, pasturing, outdoor confinement areas and farm yards and direct staff to undertake early engagement with potentially affected persons and bodies.

**Background**

**Drinking Water Threats**

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff from the property could contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat “circumstances” are listed in a provincial table accessible from the “Assessment Report” page of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

The provincial drinking water threat categories are:

- o Waste disposal sites (including the application of untreated septage to land)
- o Sewage storage, treatment, transmission or disposal
- o **Agricultural source material (e.g. manure) storage, application or management**
- o **Non-agricultural source material (e.g. biosolids) storage, handling or application**
- o **Farm animal pasturing, grazing, outdoor confinement areas or farm yards**
- o Fertilizer storage, handling or application
- o Pesticide storage, handling or application
- o Fuel storage or handling
- o Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- o Organic solvents storage or handling
- o Road salt storage, handling or application
- o Snow storage
- o Airplane de-icing

## Agricultural and Non-Agricultural Source Material, Grazing, Pasturing, Outdoor Confinement Areas and Farm Yards

This staff report discusses:

- The application and storage of agricultural source material (ASM);
- The application, handling and storage of non-agricultural source material (NASM); and
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard (O. Reg. 385/08) (hereafter referred to as outdoor livestock areas).

This staff report provides:

- Background information about these significant drinking water threats; and
- Draft policy ideas for how they could be addressed in a Source Protection Plan.

### ASM, NASM, Outdoor Livestock Areas

### Background Info

#### Definitions

Agricultural Source Material (ASM) is material produced on a farm and applied to land to improve the growth of crops and for soil conditioning. ASM may include:

- Manure and bedding material
- Runoff from farm-animal yards and manure storages
- Wash water such as milking centre waste
- Compost (such as mushroom compost)
- Regulated compost (which contains dead farm animals)
- Anaerobic digestion (AD) output (anaerobic digestion (AD) is the process by which organic materials in an enclosed vessel are broken down by micro-organisms in the absence of oxygen; the AD process produces a liquid effluent called AD output or digestate)

Non-Agricultural Source Material (NASM) is material not produced on a farm that is applied to land to improve the growth of crops and for soil conditioning. NASM may include:

- Pulp and paper biosolids
- Sewage biosolids (treated sewage from sewage treatment plants)
- Anaerobic digestion output where less than 50% of the total material comes from a farm
- Any other material that is not from a farm that can be applied to land as nutrients (such as waste materials from food processing)

There are three categories of NASM depending on the qualities of the material (pathogens, other contaminants, odour):

- Category 1 – unprocessed plant based materials such as leaf and yard waste, low-odour culled fruit and vegetables
- Category 2 – processed plant based material such as bakery washwater or organic waste matter that contains no meat or fish
- Category 3 – pulp and paper biosolids, sewage biosolids, organic waste matter from food processing that contains meat or fish

Outdoor Confinement Area (OCA) is an enclosure with no roof with a very high animal concentration (typically >15 animals per acre) where animals are fed and watered and grazing provides less than 50% of their feed.

Farm-Animal Yard is an enclosure with no roof and a high animal concentration where food and water are not provided. They are generally used as outdoor exercise areas or holding areas for when barns are being cleaned out.

Grazing/Pasturing refers to forage crop production where animals do the harvesting. The animals are kept at low density (2-3 animals per acre) often on a rotational basis.

*Outdoor confinement areas, farm-animal yards, grazing and pasturing are collectively referred to as “outdoor livestock areas” in this report.*

Nutrient Unit (NU) is a unit of measurement developed to standardize the nutrients generated by different sizes and types of livestock. One nutrient unit represents the number of animals required to produce 43 kg of nitrogen or 55 kg of phosphorus annually. For example, 300 NU= 2,400 dairy goats or 210 large frame dairy cows.

### Where is it a Significant Threat?

ASM, NASM and outdoor livestock areas are a significant drinking water threat:

- In the following locations
  - o Wellhead Protection Areas (WHPA)
  - o Intake Protection Zones (IPZ)
- Under the following circumstances

| Threat                                                                                                                                 | Locations                                     | Circumstances                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application and storage of <b>ASM</b>                                                                                                  | WHPA<br>vulnerability score of 10             | <ul style="list-style-type: none"> <li>• Any amount applied to land</li> <li>• Any amount stored in a permanent nutrient storage facility or at a temporary field storage site</li> </ul>                                                                                                                                                                                                                                                        |
|                                                                                                                                        | IPZ<br>vulnerability score of 10, 9, 8.1 or 8 |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Application, storage and handling of <b>NASM</b><br>(contains material from a meat plant or sewage works – category 3)                 | WHPA<br>vulnerability score of 10             | <ul style="list-style-type: none"> <li>• Any amount applied to land</li> <li>• Any amount stored</li> </ul>                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                        | IPZ<br>vulnerability score of 10, 9, 8.1 or 8 |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Application, storage and handling of <b>NASM</b><br>(does not contain material from a meat plant or sewage works – categories 1 and 2) | WHPA<br>vulnerability score of 10             | <u>Application:</u> <ul style="list-style-type: none"> <li>• Depends on a combination of the managed land percentage and livestock density</li> <li>• <i>This circumstance is only met at Munster Storage:</i></li> </ul> <u>Storage:</u> <ul style="list-style-type: none"> <li>• Depends on the location of storage (above or below grade), the type of storage (permanent or temporary field) and the mass of nitrogen (in tonnes)</li> </ul> |
|                                                                                                                                        | IPZ<br>vulnerability score of 10 or 9         |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Outdoor livestock areas</b>                                                                                                         | WHPA<br>vulnerability score of 10             | <ul style="list-style-type: none"> <li>• The use of land as livestock grazing or pasturing, an outdoor confinement area of a farm-animal yard for <u>one or more animals</u></li> </ul>                                                                                                                                                                                                                                                          |
|                                                                                                                                        | IPZ<br>vulnerability score of 10, 9, 8.1 or 8 |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

Maps showing the location of WHPAs and IPZs and their vulnerability scores are available on the “Assessment Report” pages of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

### Are There Existing Significant Threats?

In the Mississippi-Rideau region there are some properties where existing activities related to ASM, NASM and outdoor livestock areas are considered a significant drinking water threat.

| Existing Threats*     |              |                       |                        |                                          |
|-----------------------|--------------|-----------------------|------------------------|------------------------------------------|
| Drinking Water System |              | ASM<br>(# of parcels) | NASM<br>(# of parcels) | Outdoor Livestock Areas<br>(#of parcels) |
| WHPA                  | Almonte      | Application - 3       | 0                      | 4                                        |
|                       | Carp         | 0                     | 0                      | 3                                        |
|                       | Kemptville   | 0                     | 0                      | 0                                        |
|                       | Merrickville | 0                     | Application - 2        | 9                                        |
|                       | Munster      | Application - 1       | 0                      | 0                                        |
|                       | Richmond     | Application - 2       | 0                      | 0                                        |
|                       | Westport     | 0                     | 0                      | 0                                        |

| Existing Threats*     |                    |                                  |                        |                                          |
|-----------------------|--------------------|----------------------------------|------------------------|------------------------------------------|
| Drinking Water System |                    | ASM<br>(# of parcels)            | NASM<br>(# of parcels) | Outdoor Livestock Areas<br>(#of parcels) |
| IPZ                   | Carleton Place     | Application – 3<br>Storage 3     | 0                      | 6                                        |
|                       | Perth              | Application – 25<br>Storage - 21 | 0                      | 30                                       |
|                       | Smiths Falls       | Application – 27<br>Storage - 8  | 0                      | 8                                        |
|                       | Ottawa – Britannia | Application – 15<br>Storage - 3  | 0                      | 3                                        |
|                       | Ottawa - Lemieux   | 0                                | 0                      | 0                                        |

\* The existing threats count is only an estimate:

- Property parcels that cross the boundary between two vulnerability scores were counted twice so this can produce inflated counts.
- The count shows individual property parcels so this does not reflect multiple parcels owned by one individual (e.g. a farm or business).
- Under the threats circumstance the application of any amount of ASM is considered a significant threat which would technically include adding manure to a vegetable or flower garden. These applications were not included in our existing threats count.

### Could There Be Future Significant Threats?

Future threats are possible, although in the urban portion of vulnerable areas some zoning does not permit agricultural land uses.

## Existing Regulations

Nutrients being used on farms are regulated under the *Nutrient Management Act* and Ontario Regulation 267/03. In general the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is responsible for the administration of nutrient management programs and the Ontario Ministry of the Environment (MOE) is responsible for compliance. The main *Nutrient Management Act* instruments are Nutrient Management Strategies, Nutrient Management Plans and NASM Plans. These plans and strategies must be prepared by a person who holds an appropriate certificate issued by OMAFRA and in accordance with the regulatory requirements and protocols.

Nutrient Management Strategy is the document that shows how all the nutrients that are generated on the farm (ASM) will be managed. It deals with capacity of livestock housing and manure storages, site selection, design and engineering of new nutrient storages and runoff management.

A Nutrient Management Strategy would address:

- Storage of ASM
- Generation of ASM from a farm-animal yard or an outdoor confinement area (not from grazing/pasturing)

A Nutrient Management Strategy is required for farms that:

- generate greater than 300 nutrient units annually;
- generate between 5 and 300 nutrient units annually and have applied for a building permit for a structure to house livestock or store manure;
- are constructing an earthen nutrient storage or regulated mixed anaerobic digestion facility; or
- have an existing anaerobic digestion facility receiving off-farm materials.

Nutrient Management Plan is the document that sets out how much and where the nutrients will be applied to the land.

A Nutrient Management Plan would address:

- Application of ASM

A Nutrient Management Plan is required for farms that are required to have a strategy and:

- generate greater than 300 nutrient units and apply nutrients to land as part of the operation; or
- generate greater than 5 nutrient units and are within 100 m of a municipal well

NASM Plans deal with material that is generated off the farm but is applied as a nutrient to the land.

A NASM Plan would address:

- Application of NASM
- Storage and handling of NASM

A NASM Plan is required:

- when land applying or storing Category 2 or 3 NASM.

A NASM Plan is not required:

- when land applying or storing Category 1 NASM; or
- when applying NASM under an existing Certificate of Approval (the last of which will expire no later than January 1, 2016).

The Provincial *Environmental Protection Act* prohibits the discharge of contaminants into the natural environment. Normal farming practices such as manure spreading on fields are exempt from the approvals required for other wastes. However, spills from manure storages must be prevented and this legislation sets out requirements for spill response and clean-up.

The Federal *Fisheries Act* and the Ontario *Water Resources Act* address manure and sediment runoff if it contaminates a watercourse (such as through livestock having unrestricted access to surface water).

Municipal requirements include by-laws and minimum distance separation formulae that are used by municipalities to separate land uses that may conflict (such as a livestock facility and a subdivision).

Canada-Ontario Environmental Farm Plan (EFP) is a program that is delivered locally through workshops put on by the Ontario Soil and Crop Improvement Association with expertise provided by OMAFRA. It is a voluntary program where participants progress through a risk assessment and action plan development for their farm. The intent is to make improvements to reduce environmental impacts. Funding is provided for certain improvements.

| ASM, NASM, Outdoor Livestock Areas | Draft Policy Ideas |
|------------------------------------|--------------------|
|------------------------------------|--------------------|

### Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address ASM, NASM and outdoor livestock areas where they are or would be a significant drinking water threat.

| Policy Tool                                                                                                                                                                                                                                                                                         | Address<br>ASM, NASM, Outdoor Livestock Areas?                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Education and Outreach                                                                                                                                                                                                                                                                              | Yes                                                                                   |
| Incentives                                                                                                                                                                                                                                                                                          | Yes                                                                                   |
| Prescribed Instruments                                                                                                                                                                                                                                                                              | Yes<br>(only for certain farms – grazing /pasturing and Category 1 NASM not included) |
| Land Use Planning                                                                                                                                                                                                                                                                                   | Yes                                                                                   |
| Risk Management Plans                                                                                                                                                                                                                                                                               | Yes                                                                                   |
| Prohibition (under the <i>Clean Water Act</i> )                                                                                                                                                                                                                                                     | Yes                                                                                   |
| Other: <ul style="list-style-type: none"> <li>Specify Actions to be taken by a person or body to achieve Source Protection Plan objectives</li> <li>Establish stewardship programs</li> <li>Promote best management practices</li> <li>Establish pilot programs</li> <li>Govern research</li> </ul> | Yes                                                                                   |

## **Draft Policy Ideas**

Draft policy ideas have been developed to address the application and storage of ASM, the application, storage and handling of NASM and outdoor livestock areas. These ideas were developed by staff in conjunction with:

- Our municipal working group
  - o Meeting #1 (December 9, 2010)
- Our agricultural advisory group
  - o Meeting #1 (May 19, 2011)
  - o Meeting #2 (July 25, 2011)

The draft policy ideas are outlined in the attached table.

## **Rationale**

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of the policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of the Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for ASM, NASM and outdoor livestock areas:

### **Effectiveness**

- Ontario's source water protection Technical Experts Committee (2004 report) identified DNAPLs and pathogens as the two contaminants that were extremely problematic from a human health protection standpoint once they enter source water. This is the reason for the large vulnerable area (vulnerability score of 8) where ASM, NASM and outdoor livestock areas are considered a significant threat and the relatively low thresholds (e.g. any amount / one animal). Given the threat circumstances, the policies will apply in these larger areas and to most farms thereby affording a high level of protection for water sources.
- Since the application and storage of ASM, the application, storage and handling of NASM and outdoor livestock areas can involve any number of activities potentially taking place in different ways on each property parcel, a risk management plan will have the flexibility to effectively and comprehensively address all nutrient threat activities however they are taking place on a property.
- Both OMAFRA and the Environmental Farm Plan program recognize that while all livestock operations produce manure, the risk of soil and water contamination increases when large volumes of manure are stored on the farmstead and/or applied to a small land base. For this reason the policies combine thresholds from the *Nutrient Management Act* (agricultural operations generating less than 5 nutrient units are exempt from requiring a Nutrient Management Strategy or Plan – these are very small operations) and the Environmental Farm Plan (agricultural operations generating less than 1 nutrient unit per cropland acre are considered lower risk – these are low intensity operations) to set the minimum requirement before which a risk management plan would be required.

- Ontario's *Nutrient Management Act* sets out province-wide standards for regulating the safe application and storage of ASM, the safe application, storage and handling of NASM; and the safe generation of ASM in farm-animal yards and outdoor confinement areas. For this reason any prescribed instrument(s) issued under this Act (Nutrient Management Strategy or Plan or NASM Plan) can be used as content for the risk management plan.

### **Cost / Impact**

- The cost of administering Risk Management Plans falls to municipalities, however:
  - Under the *Clean Water Act*, municipalities may charge fees to recover the costs of administering Risk Management Plans. Therefore the cost could be borne by the property owner requiring the Risk Management Plan (like a permit fee) or could be paid for by those on municipal water services through an additional charge on their water bill.
- We know existing significant threat counts are artificially high because they count individual property parcels whereas most farms are made up of multiple property parcels that would only require one Risk Management Plan. This means the cost of administering a Risk Management Plan program for this threat could be reasonable, and the number of potentially affected properties could be fewer than 30.
- Measures that may be required through the Risk Management Plan are likely common best management practices that many operations will have already implemented either on their own or with help from the Environmental Farm Plan. If they have not, there may be additional costs associated with these new required measures.
  - Accepting prescribed instruments already issued under the *Nutrient Management Act* as content for a Risk Management Plan makes use of existing plans and strategies that have already been completed and paid for. This will save property owners additional time and costs.
  - For operations that are not phased-in under the *Nutrient Management Act*, they may have to incur the cost of a Nutrient Management Strategy and/or Nutrient Management Plan. Average costs for these items will be determined during consultation
  - NASM generators usually take care of preparing NASM Plans (time and costs) because they need properties to spread their NASM material on (they ensure there is no cost to the receiving property owner, commonly a farm).
- The costs associated with new required measures under a risk management plan would be modest compared to the potential costs and liability associated with contaminating a drinking water source and a record of such practices could be used to demonstrate due diligence in the event that a farm is blamed for contamination that is not a result of farm practices.
- The Ontario Drinking Water Stewardship Program, the Canada-Ontario Environmental Farm Plan and/or local Clean Water Programs (e.g. Ottawa and Rideau Valley) may provide funding for certain activities related to ASM, NASM and outdoor livestock areas.
- Education and outreach for farms will encourage participation in the existing Environmental Farm Plan program which is a well-established and well respected program.

### **Practicality**

- Accepting prescribed instruments issued under the *Nutrient Management Act* as content for the Risk Management Plan avoids regulatory duplication and saves property owners and risk management officials time and money.
- The potential measures required by the risk management plan will likely be current best management practices and common sector standards that many property owners have already implemented.

- A specify action policy requests OMAFRA and MOE to fulfill the risk management official role for any farm who may require a risk management plan but may not be a phased-in farm under the Nutrient Management Act. This is a request we are hearing from the larger agricultural community as they have come to understand the process for phased-in farms and it would avoid duplication of roles.
- Monitoring of the effectiveness of the policies would be achieved mainly through annual reports to the SPA from the Risk Management Official and the education and outreach program implementer.

### **Acceptance**

- In many cases, the Risk Management Plan will require measures that are already mandatory or are common standards. This means many property owners may have already undertaken some or all of these measures.
- As outlined above, the additional costs for property owners to implement the risk mitigation measures required by the Risk Management Plan will help protect the owner's property and business against a spill that could bankrupt a property owner or cause them to lose their business. In addition, a record demonstrating best management practices could be used to demonstrate due diligence in the event that an operation is blamed for contamination that is not a result of the operation's practices.
- Draft policy concepts will be provided to potentially affected property owners for review and input and their comments will be reviewed by the SPC prior to considering a draft policy for the draft Source Protection Plan.
- Local agricultural associations will also be consulted to obtain input on draft policy concepts.

### **Additional Information**

- MOE Bulletin: Source Protection Planning Bulletin – Nutrient Management Instruments

### **Attached:**

- Draft Policy Ideas for ASM, NASM and Outdoor Livestock Areas

### 3.0a Draft Policy Ideas for Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM) and Outdoor Livestock Areas

| Situation                                                                                                                                                                                                                                      | Description                                                                                                                                                  | Policy Tool and Concept                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Implementer                           | Monitoring Policy                                                                                                                                                                                                                                                                                                                                                                                                                       | Legal Effect                             | Compliance Date                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Existing and future:</p> <ul style="list-style-type: none"> <li>• application or storage of ASM</li> <li>• application, storage or handling of NASM</li> <li>• outdoor livestock area that is or would be a significant threat.*</li> </ul> | <p><b>#1 Residential</b><br/>Property owners storing or applying nutrients for personal residential use</p>                                                  | <p><b>Education and Outreach</b> to promote Best Management Practices.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Municipality</p>                   | <p>Implementer to provide an annual report to the Source Protection Authority with the following content:</p> <ul style="list-style-type: none"> <li>• Description of the education and outreach initiatives that were carried out</li> <li>• Estimate of uptake (e.g., numbers of participants in an information session)</li> </ul>                                                                                                   | <p>Must comply</p>                       | <p>Compliance date to be determined in consultation with the municipality</p>                                                                                                        |
|                                                                                                                                                                                                                                                | <p><b>#2 Smaller, less intensive operations</b><br/>Farms generating &lt; 5 nutrient units <b>and</b> generating &lt; 1 nutrient unit / acre of cropland</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                          |                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                | <p><b>#3 Smaller, more intensive operations</b><br/>Farms generating &lt; 5 nutrient units <b>and</b> generating &gt; 1 nutrient unit / acre of cropland</p> | <p><b>Risk Management Plan</b> required to ensure risk management measures are implemented. Strategies and Plans developed under the <i>Nutrient Management Act</i>, can be used to fulfill this requirement:</p> <ul style="list-style-type: none"> <li>• Approved Nutrient Management Strategy can be used to fulfill the Risk Management Plan requirement for the storage of ASM</li> <li>• Nutrient Management Plan prepared by a certified person can be used to fulfill the Risk Management Plan requirement for the application of ASM</li> <li>• Approved NASM Plan can be used to fulfill the Risk Management Plan requirement for the handling, storage and application of NASM</li> </ul> | <p>Risk Management Official (RMO)</p> | <p>The Risk Management Official shall report annually to the Source Protection Authority with the information required in Section 65 of Regulation 287/07 related to the previous calendar year.</p> <p><i>This will provide administrative, enforcement and compliance results.</i></p>                                                                                                                                                | <p>RMO must enforce</p>                  | <p><u>Existing:</u><br/>Compliance date to be set in consultation with municipality</p> <p><u>Future:</u><br/>Must conform immediately upon Source Protection Plan taking effect</p> |
|                                                                                                                                                                                                                                                | <p><b>#4 Larger, more intensive operations</b><br/>Farms generating &gt; 5 nutrient units</p>                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                          |                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                | <p><b>#5 All farms</b></p>                                                                                                                                   | <p><b>Specify Action:</b><br/>Recommend that the current OMAFRA / MOE process for phased in farms be used to fulfill the Risk Management Official / Inspector roles for non-phased in farms to address significant drinking water threats. <i>This is currently under discussion. Regions are awaiting direction from OMAFRA.</i></p>                                                                                                                                                                                                                                                                                                                                                                | <p>OMAFRA</p>                         | <p>OMAFRA to notify the Source Protection Authority regarding the results of their consideration of this recommendation.</p>                                                                                                                                                                                                                                                                                                            | <p>This is a strategic action policy</p> | <p>Compliance date to be determined in consultation with OMAFRA</p>                                                                                                                  |
|                                                                                                                                                                                                                                                |                                                                                                                                                              | <p><b>Education and Outreach</b> to encourage all farms located in vulnerable drinking water areas to participate in the Environmental Farm Plan program.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Municipality</p>                   | <p>Implementer to provide an annual report to the Source Protection Authority with the following content:</p> <ul style="list-style-type: none"> <li>• Description of the education and outreach initiatives that were carried out</li> <li>• Estimate of uptake (e.g., numbers of participants in an information session)</li> <li>• Feedback regarding the effectiveness of the policy and recommendations for improvement</li> </ul> | <p>Must comply</p>                       | <p>Compliance date to be determined in consultation with the municipality</p>                                                                                                        |

\* Significant Threat Circumstances can be found on page 23

### **3.0b Draft Policy Ideas: Commercial Fertilizer**

**Date: August 23, 2011**

**To: Mississippi-Rideau Source Protection Committee**

**From: Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region**

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#### **Recommendation 1:**

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for commercial fertilizer and direct staff to undertake early engagement with potentially affected persons and bodies.

#### **Background**

##### **Drinking Water Threats**

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff property and contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat “circumstances” are listed in a provincial table accessible from the “Assessment Report” page of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

The provincial drinking water threat categories are:

- o Waste disposal sites (including the application of untreated septage to land)
- o Sewage storage, treatment, transmission or disposal
- o Agricultural source material (e.g. manure) storage, application or management
- o Non-agricultural source material (e.g. biosolids) storage, handling or application
- o Farm animal pasturing, grazing, outdoor confinement areas or farm yards
- o **Commercial fertilizer storage, handling or application**
- o Pesticide storage, handling or application
- o Fuel storage or handling
- o Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- o Organic solvents storage or handling
- o Road salt storage, handling or application
- o Snow storage
- o Airplane de-icing

##### **Commercial Fertilizer**

This staff report discusses the storage, handling and application of commercial fertilizer. It provides:

- Background information about this significant drinking water threat; and
- Draft policy ideas for how it could be addressed in a Source Protection Plan.

### The Threat

As noted above (in bold), one of the provincial threat categories is commercial fertilizer, specifically:

- The storage, handling or application of commercial fertilizer.

### Definitions

Commercial Fertilizer is a synthetic substance containing nitrogen, phosphorus, potassium (or other plant food intended for use as a plant nutrient) that is applied to land to improve the growth of crops.

Managed Lands include cropland, fallow land, pasture, golf courses, sports fields and lawns to which fertilizer could be applied.

Livestock Density is determined by using the nutrient units generated in an area as a percentage of the total agricultural managed lands in the area.

Nutrient Unit is a unit of measurement developed to standardize the nutrients generated by different sizes and types of livestock. One nutrient unit represents the number of animals required to produce 43 kg of nitrogen or 55 kg of phosphorus annually. For example, 300 NU= 2,400 dairy goats or 210 large frame dairy cows.

### Where is it a Significant Threat?

Commercial fertilizer use is a significant drinking water threat:

- In the following locations
  - o Wellhead Protection Areas (WHPA)
  - o Intake Protection Zones (IPZ)
- Under the following circumstances

| Threat                                        | Locations                          | Circumstances                                                                                                                                                                                |
|-----------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application of commercial fertilizer          | WHPA vulnerability score of 10     | <ul style="list-style-type: none"> <li>• Depends on a combination of the managed land percentage and livestock density</li> <li>• <u>This circumstance is only met at Munster</u></li> </ul> |
|                                               | IPZ vulnerability score of 10 or 9 |                                                                                                                                                                                              |
| Handling and storage of commercial fertilizer | WHPA vulnerability score of 10     | <ul style="list-style-type: none"> <li>• &gt;2,500 kg</li> <li>• Stored for retail sale or in relation to its application</li> </ul>                                                         |
|                                               | IPZ vulnerability score of 10      |                                                                                                                                                                                              |

Maps showing the location of WHPAs and IPZs and their vulnerability scores are available on the "Assessment Report" pages of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

### Are There Existing Significant Threats?

In the Mississippi-Rideau region there are no existing significant threat locations for the application of commercial fertilizer. However, there are some properties where existing storage of commercial fertilizer is a significant drinking water threat.

| Drinking Water System |              | Existing Significant Threats*<br>Application | Existing Significant Threats*<br>Handling and Storage |
|-----------------------|--------------|----------------------------------------------|-------------------------------------------------------|
| WHPA                  | Almonte      | 0                                            | 3 parcels                                             |
|                       | Carp         | 0                                            | 0                                                     |
|                       | Kemptville   | 0                                            | 0                                                     |
|                       | Merrickville | 0                                            | 0                                                     |
|                       | Munster      | 0                                            | 0                                                     |
|                       | Richmond     | 0                                            | 0                                                     |
|                       | Westport     | 0                                            | 1 parcel                                              |

| Drinking Water System |                                     | Existing Significant Threats*<br>Application                         | Existing Significant Threats*<br>Handling and Storage |
|-----------------------|-------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------|
| IPZ                   | Carleton Place                      | 0                                                                    | 0                                                     |
|                       | Perth                               | 0                                                                    | 0                                                     |
|                       | Smiths Falls                        | 0                                                                    | 2 parcels                                             |
|                       | Ottawa – Britannia & Lemieux Island | No vulnerability score of 10 so a significant threat is not possible |                                                       |

\* The existing threats count is only an estimate:

- Property parcels that cross the boundary between two vulnerability scores were counted twice so this can produce inflated counts.
- The count shows individual property parcels so this does not reflect multiple parcels owned by one individual (e.g. a farm or business).
- Under the threats circumstance the application of any amount of commercial fertilizer is considered a significant threat in part of the Munster Wellhead Protection Area, this technically includes commercial fertilizer applied to residential lawns. These applications were not included in our existing threats count.

### Could There Be Future Significant Threats?

Future threats for the application of commercial fertilizer are only possible at the Munster WHPA with a score of 10 where the managed land area and livestock density numbers meet the significant threat circumstances. Future threats for the handling and storage of commercial fertilizer are possible in all areas unless zoning specifically prohibits a land use involving the storage of more than 2,500 kg of fertilizer.

## Existing Regulations

Nutrients being used on farms are regulated under the *Nutrient Management Act* and Ontario Regulation 267/03. In general the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is responsible for the administration of nutrient management programs and the Ontario Ministry of the Environment (MOE) is responsible for compliance. The main *Nutrient Management Act* instruments are Nutrient Management Strategies and Plans.

Nutrient Management Strategy is the document prepared by a certified person for how to manage all the nutrients that are generated on a farm (Agricultural Source Material). It deals with capacity of livestock housing and manure storages, siting, design and engineering of new nutrient storages and runoff management. The Nutrient Management Strategy **does not address** the handling and storage of **commercial fertilizer**. A Nutrient Management Strategy is required for farms that:

- generate greater than 300 nutrient units annually;
- generate between 5 and 300 nutrient units annually and have applied for a building permit for a structure to house livestock or store manure;
- are constructing an earthen nutrient storage or regulated mixed anaerobic digestion facility; or
- have an existing anaerobic digestion facility receiving off-farm materials.

Nutrient Management Plan is the document that sets out how much and where the nutrients will be applied to the land. A Nutrient Management Plan **would address** the **application of commercial fertilizer** but is **not always required**. A Nutrient Management Plan is required for farms that are required to have a strategy and:

- generate greater than 300 Nutrient Units and apply nutrients to land as part of the operation; or
- generate greater than 5 Nutrient Units and are within 100 m of a municipal well.

The Provincial *Environmental Protection Act* prohibits the discharge of contaminants into the natural environment. This legislation sets out requirements for spill response and clean-up.

The Federal *Fisheries Act* prohibits the depositing of any contaminant, including commercial fertilizer, in water or in any place where it may enter water frequented by fish. This could result from the improper application of fertilizer or from spills that occur during handling or storage.

The *Transportation of Dangerous Goods Act* regulates the handling and transporting of certain commercial fertilizers through requirements for containers, labeling and training.

The Canadian Fertilizer Industry Storage and Handling Guidelines have been prepared by the Canadian Fertilizer Institute and are based on industry best practices and regulatory requirements. The guidelines address locating new facilities, emergency response plans, design specifications for containment and runoff management and employee training.

Canada-Ontario Environmental Farm Plan (EFP) is a program that is delivered locally through workshops put on by the Ontario Soil and Crop Improvement Association with expertise provided by OMAFRA. It is a voluntary program where participants progress through a risk assessment and action plan development for their farm. The intent is to make improvements to reduce environmental impacts. Funding is provided for certain improvements.

## Golf Course Best Management Practices & Audubon Cooperative Sanctuary Program

The Ontario Allied Golf Associations identified voluntary best management practices for the use and storage of fertilizer at golf courses. Audubon International has developed an education

and certification program to help golf courses with their environmental protection practices including chemical use reduction and safety and water quality management.

## Commercial Fertilizer

## Draft Policy Ideas

### Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address the storage, handling and application of commercial fertilizer where it is or would be a significant drinking water threat.

| Policy Tool                                                                                                                                                                                                                                                                                         | Address Commercial Fertilizer?                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Education and Outreach                                                                                                                                                                                                                                                                              | Yes                                                  |
| Incentives                                                                                                                                                                                                                                                                                          | Yes                                                  |
| Prescribed instruments                                                                                                                                                                                                                                                                              | Yes<br>(application only and only for certain farms) |
| Land Use Planning                                                                                                                                                                                                                                                                                   | Yes                                                  |
| Risk Management Plans                                                                                                                                                                                                                                                                               | Yes                                                  |
| Prohibition (under the Clean Water Act)                                                                                                                                                                                                                                                             | Yes                                                  |
| Other: <ul style="list-style-type: none"> <li>Specify Actions to be taken by a person or body to achieve Source Protection Plan objectives</li> <li>Establish stewardship programs</li> <li>Promote best management practices</li> <li>Establish pilot programs</li> <li>Govern research</li> </ul> | Yes                                                  |

### Draft Policy Ideas

Draft policy ideas have been developed to address the handling, storage and application of commercial fertilizer. These ideas were developed by staff in conjunction with:

- Our municipal working group
  - o Meeting #1 (December 9, 2010)
- Our agricultural advisory group
  - o Meeting #1 (May 19, 2011)
  - o Meeting #2 (July 25, 2011)

The draft policy ideas are outlined in the attached table.

### Rationale

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of the policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of the Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for commercial fertilizer:

### **Effectiveness**

- Existing retail storages will be managed using a risk management plan to ensure compliance with the Canadian Fertilizer Institute Guidelines. These guidelines are very comprehensive and cover locating new facilities, emergency response plans, design specifications for containment and runoff management and employee training.
- The application and storage of commercial fertilizer by operators (e.g. golf courses, farms) can also be adequately addressed using a risk management plan which will ensure effective risk management measures are in place.
- Ontario's *Nutrient Management Act* sets out province-wide standards for regulating the safe application of commercial fertilizer on phased-in farms. For this reason any prescribed instrument issued under this Act (Nutrient Management Strategy or Plan) can be used as content for the risk management plan.
- Even though risks associated with future commercial fertilizer storage for retail purposes could be managed, retail storage is often associated with larger volumes of fertilizer stored for longer periods of time which poses a higher level of risk. It is also unnecessary that new retail storage facilities be established where they would be considered a significant threat because these facilities can be established in any suitable location, there is no operational need for them to be located in an area with a vulnerability score or 10. For this reason future retail storages will be prohibited which will effectively address the activity.

### **Cost / Impact**

- The cost of administering Risk Management Plans falls to municipalities, however:
  - o Under the *Clean Water Act*, municipalities may charge fees to recover the costs of administering Risk Management Plans. Therefore the cost could be borne by the property owner requiring the Risk Management Plan (like a permit fee) or could be paid for by those on municipal water services through an additional charge on their water bill.
- We know existing significant threat counts are artificially high because they count individual property parcels whereas many businesses or farms are made up of multiple property parcels that would only require one Risk Management Plan. This means the cost of administering a Risk Management Plan program for this threat could be reasonable, and the number of potentially affected properties could be fewer than 6.
- An operation that requires a risk management plan for other nutrient related threats (e.g. ASM, NASM) can address all their activities in one risk management plan.
- Measures that may be required through the Risk Management Plan are likely common best management practices that many operations will have already implemented either on their own or with help from an education or funding program like the Environmental Farm Plan. If they have not, there may be additional costs associated with these new required measures.
  - o Accepting prescribed instruments already issued under the *Nutrient Management Act* as content for a Risk Management Plan makes use of existing plans and strategies that have already been completed and paid for. This will save property owners additional time and costs.

- The costs associated with new required measures under a risk management plan would be modest compared to the potential costs and liability associated with contaminating a drinking water source and a record of such practices could be used to demonstrate due diligence in the event that an operation is blamed for contamination that is not a result of the operation's practices.
- The Ontario Drinking Water Stewardship Program, the Canada-Ontario Environmental Farm Plan and/or local Clean Water Programs (e.g. Ottawa and Rideau Valley) may provide funding for certain activities related to commercial fertilizer.
- Education and outreach for farms will encourage participation in the existing Environmental Farm Plan program which is a well-established and well respected program.

### ***Practicality***

- Accepting prescribed instruments issued under the *Nutrient Management Act* as content for the Risk Management Plan avoids regulatory duplication and saves property owners and risk management officials time and money.
- The potential measures required by the risk management plan will likely be current best management practices and common sector standards that many property owners have already implemented.
- A specific action policy requests OMAFRA and MOE to fulfill the risk management official role for any farm who may require a risk management plan but may not be a phased-in farm under the Nutrient Management Act. This is a request we are hearing from the larger agricultural community as they have come to understand the process for phased-in farms and it would avoid duplication of roles.
- Monitoring of the effectiveness of the policies would be achieved mainly through annual reports to the SPA from the Risk Management Official and the education and outreach program implementer.

### ***Acceptance***

- In many cases, the Risk Management Plan will require measures that are already required or are common standards. This means many property owners may have already undertaken some or all of the measures.
- As outlined above, the additional costs for property owners to implement the risk mitigation measures required by the Risk Management Plan will help protect the owner's property and business against a spill that could bankrupt a property owner or cause them to lose their business. In addition, a record demonstrating best management practices could be used to demonstrate due diligence in the event that an operation is blamed for contamination that is not a result of the operation's practices.
- Draft policy concepts will be provided to potentially affected property owners for review and input and their comments will be reviewed by the SPC prior to considering a draft policy for the draft Source Protection Plan.
- Local agricultural associations will also be consulted to obtain input on draft policy concepts.

### **Additional Information**

- MOE Bulletin: Source Protection Planning Bulletin – Nutrient Management Instruments

### **Attached:**

- Draft Policy Ideas for Commercial Fertilizer

### 3.0b Draft Policy Ideas for the Application, Handling and Storage of Commercial Fertilizer

| Situation                                                                                                      | Description                                                                                                             | Policy Tool and Concept                                                                                                                                                                                                                                                                                                       | Implementer                    | Monitoring Policy                                                                                                                                                                                                                                                                                                                                                     | Legal Effect                      | Compliance Date                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Existing and Future Application and storage of commercial fertilizer that is or would be a significant threat* | #1 <b>Residential</b><br>Property owners applying commercial fertilizer for personal residential use (Munster only)     | <b>Education and Outreach</b> to promote Best Management Practices.                                                                                                                                                                                                                                                           | Municipality                   | Implementer to provide an annual report to the Source Protection Authority with the following content:<br>• Description of the education and outreach initiatives that were carried out<br>• Estimate of uptake (e.g., numbers of participants in an information session)                                                                                             | Must comply                       | Compliance date to be determined in consultation with the municipality                                                                                                      |
|                                                                                                                | #2 <b>Operations</b><br>Operations applying commercial fertilizer (Munster only) or storing it for application purposes | <b>Risk Management Plan</b> required to ensure risk management measures are implemented. Nutrient Management Strategies and Plans developed under the <i>Nutrient Management Act</i> , can be used to fulfill this requirement                                                                                                | Risk Management Official (RMO) | The Risk Management Official shall report annually to the Source Protection Authority with the information required in Section 65 of Regulation 287/07 related to the previous calendar year.<br><br><i>This will provide administrative, enforcement and compliance results.</i>                                                                                     | RMO must enforce                  | <u>Existing:</u><br>Compliance date to be set in consultation with municipality<br><br><u>Future:</u><br>Must conform immediately upon Source Protection Plan taking effect |
|                                                                                                                |                                                                                                                         | <b>Specify Action:</b><br>Recommend that the current OMAFRA / MOE process for phased in farms be used to fulfill the Risk Management Official / Inspector roles for non-phased in farms to address significant drinking water threats. <i>This is currently under discussion. Regions are awaiting direction from OMAFRA.</i> | OMAFRA                         | OMAFRA to notify the Source Protection Authority regarding the results of their consideration of this recommendation.                                                                                                                                                                                                                                                 | This is a strategic action policy | Compliance date to be determined in consultation with OMAFRA                                                                                                                |
|                                                                                                                |                                                                                                                         | <b>Education and Outreach</b> to encourage all farms located in vulnerable drinking water areas to participate in the Environmental Farm Plan program.                                                                                                                                                                        | Municipality                   | Implementer to provide an annual report to the Source Protection Authority with the following content:<br>• Description of the education and outreach initiatives that were carried out<br>• Estimate of uptake (e.g., numbers of participants in an information session)<br>• Feedback regarding the effectiveness of the policy and recommendations for improvement | Must comply                       | Compliance date to be determined in consultation with the municipality                                                                                                      |
|                                                                                                                | #3 <b>Retail</b><br>Businesses storing fertilizer for retail sale                                                       | <b>Risk Management Plan</b> required for existing commercial fertilizer stored for retail purposes to ensure / demonstrate compliance with Canadian Fertilizer Institute Guidelines.<br><br><b>Prohibition</b> of future commercial fertilizer storage for retail purposes.                                                   | Risk Management Official (RMO) | The Risk Management Official shall report annually to the Source Protection Authority with the information required in Section 65 of Regulation 287/07 related to the previous calendar year.<br><br><i>This will provide administrative, enforcement and compliance results.</i>                                                                                     | RMO must enforce                  | <u>Existing:</u><br>Compliance date to be set in consultation with municipality<br><br><u>Future:</u><br>Must conform immediately upon Source Protection Plan taking effect |

\* Significant Threat Circumstances can be found on page 32

### **3.0c Draft Policy Ideas: Pesticide**

**Date: August 23, 2011**

**To: Mississippi-Rideau Source Protection Committee**

**From: Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region**

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#### **Recommendation 1:**

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for pesticides and direct staff to undertake early engagement with potentially affected persons and bodies.

### **Background**

#### **Drinking Water Threats**

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff property and contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat “circumstances” are listed in a provincial table accessible from the “Assessment Report” page of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

The provincial drinking water threat categories are:

- o Waste disposal sites (including the application of untreated septage to land)
- o Sewage storage, treatment, transmission or disposal
- o Agricultural source material (e.g. manure) storage, application or management
- o Non-agricultural source material (e.g. biosolids) storage, handling or application
- o Farm animal pasturing, grazing, outdoor confinement areas or farm yards
- o Commercial fertilizer storage, handling or application
- o **Pesticide storage, handling or application**
- o Fuel storage or handling
- o Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- o Organic solvents storage or handling
- o Road salt storage, handling or application
- o Snow storage
- o Airplane de-icing

#### **Pesticide**

This staff report discusses the storage, handling and application of pesticide. It provides:

- Background information about this significant drinking water threat; and
- Draft policy ideas for how it could be addressed in a Source Protection Plan.

### The Threat

As noted above (in bold), one of the provincial threat categories is pesticide, specifically:

- The storage, handling or application of pesticide.

There are 11 chemicals listed in the provincial Tables of Circumstances:

- Atrazine
- Metolachlor or s-Metolachlor
- Dichlorophenoxy Acetic Acid (D-2,4)
- Dichloropropene-1,3
- MCPB (4-(4-chloro-2-methylphenoxy) butanoic acid)
- MCPA (2-methyl-4-chlorophenoxyacetic acid)
- Glyphosate
- Mecoprop
- Metalaxyl
- Pendimethalin
- Dicamba

These are active ingredients in herbicides (used to control weeds) except Dichloropropene-1,3 which is used to control nematodes (roundworms) and Metalaxyl which is used to control fungus.

Due to Ontario's Cosmetic Pesticide Ban, these chemicals are only approved for use in agriculture, golf courses, some sports fields and to protect natural resources, buildings and structures. The only exemptions for domestic use are to protect the health and safety of people (such as controlling mosquitoes that can transmit West Nile Virus, plants that are poisonous to the touch, fleas on pets, indoor pests or pests that can cause structural damage to a home).

### Where is it a Significant Threat?

Pesticide use is a significant drinking water threat:

- In the following locations
  - o Wellhead Protection Areas (WHPA)
  - o Intake Protection Zones (IPZ)
- Under the following circumstances

| Threat                            | Locations                                  | Circumstances                                                                                                                                                                                                                                               |
|-----------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application of pesticide          | WHPA<br>vulnerability score of 10          | Depends on the chemical and the area of land to which it is applied (in hectares)                                                                                                                                                                           |
|                                   | IPZ<br>vulnerability score of 10, 9 or 8.1 |                                                                                                                                                                                                                                                             |
| Handling and storage of pesticide | WHPA<br>vulnerability score of 10          | Depends on the chemical, the mass (in kilograms) and the type of storage: <ul style="list-style-type: none"> <li>• Stored at a facility where it is manufactured, processed or wholesaled; or</li> <li>• Stored for retail sale or extermination</li> </ul> |
|                                   | IPZ<br>vulnerability score of 10           |                                                                                                                                                                                                                                                             |
|                                   | IPZ<br>vulnerability score of 9            | Depends on the chemical, the mass (in kilograms) and the type of storage: <ul style="list-style-type: none"> <li>• Stored for retail sale or extermination</li> </ul>                                                                                       |

Maps showing the location of WHPAs and IPZs and their vulnerability scores are available on the “Assessment Report” pages of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

### Are There Existing Significant Threats?

In the Mississippi-Rideau region there are some properties where existing activities related to pesticide may be a significant drinking water threat.

| Drinking Water System |              | Existing Significant Threats*<br>Application | Existing Significant Threats*<br>Handling and Storage |
|-----------------------|--------------|----------------------------------------------|-------------------------------------------------------|
| WHPA                  | Almonte      | 3 parcels                                    | 3 parcels                                             |
|                       | Carp         | 3 parcels                                    | 0                                                     |
|                       | Kemptville   | 0                                            | 0                                                     |
|                       | Merrickville | 1 parcel                                     | 0                                                     |
|                       | Munster      | 1 parcel                                     | 0                                                     |
|                       | Richmond     | 2 parcels                                    | 0                                                     |
|                       | Westport     | 0                                            | 1 parcel                                              |

| Drinking Water System |                    | Existing Significant Threats*<br>Application | Existing Significant Threats*<br>Handling and Storage |
|-----------------------|--------------------|----------------------------------------------|-------------------------------------------------------|
| IPZ                   | Carleton Place     | 0                                            | 1 parcel                                              |
|                       | Perth              | 9 parcels                                    | 0                                                     |
|                       | Smiths Falls       | 0                                            | 2 parcels                                             |
|                       | Ottawa – Britannia | 15 parcels                                   | 0                                                     |
|                       | Ottawa – Lemieux   | 0                                            | 0                                                     |

\* The existing threats count is only an estimate:

- Property parcels that cross the boundary between two vulnerability scores were counted twice so this can produce inflated counts.
- The count shows individual property parcels so this does not reflect multiple parcels owned by one individual (e.g. a farm or business).

### Could There Be Future Significant Threats?

Future threats for the storage, handling or application of pesticide would be possible except where a land use associated with these activities is prohibited by current zoning (e.g., where zoning does not permit the establishment of golf courses or pesticide manufacturing, future pesticide application or storage threats would not be possible).

## Existing Regulations

The Pesticides Act and Ontario Regulation 63/09 involves:

- A classification system for pesticides (different rules regarding the sale, use, storage, transportation and disposal apply depending on the class of pesticide)
- Mandatory licensing and training for people who apply or sell pesticide
- Permits for certain products (none that are part of the drinking water threat) and for aerial spraying
- Requirements related to pesticide storage, mixing and loading
- Specifics regarding Ontario's Cosmetic Pesticide Ban

The Federal Pest Control Products Act and Regulations involves:

- Evaluating, approving and registering pesticides to ensure there is merit for their use and to prevent unacceptable risks to human health and the environment
- Labeling pesticides with all important information such as the active ingredient, how to use the product, how dangerous it is, the rate it should be applied and what to do in case of an accident
- Placing restrictions (such as specific buffer zones) on certain pesticides to lessen risks

The Agrichemical Warehousing Standards Association (AWSA) is made up of industry and government representatives who have established standards to ensure pesticides are stored so that risks to human health and the environment are minimized. AWSA has established:

- Warehousing standards to address structural requirements, employee training and documentation
- A system of certification, including audits to ensure compliance

Integrated Pest Management (IPM) is a system of employing a variety of techniques to suppress pests effectively in an economically and environmentally sound manner. In order to be exempt from Ontario's Cosmetic Pesticide Ban, golf courses and certain public works must be accredited by the Integrated Pest Management Council of Canada (IPMCC).

The Provincial Environmental Protection Act prohibits the discharge of contaminants into the natural environment. The legislation sets out requirements for spill response and clean-up.

The Federal Fisheries Act prohibits the depositing of any contaminant, including pesticide, in water or in any place where it may enter water frequented by fish. This could result from the improper application of pesticide or from spills that occur during handling or storage.

| Pesticide | Draft Policy Ideas |
|-----------|--------------------|
|-----------|--------------------|

## Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address the storage, handling and application of pesticide where it is or would be a significant drinking water threat.

| <b>Policy Tool</b>                                                                                                                                                                                                                                                                                            | <b>Address Pesticide?</b>               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Education and Outreach                                                                                                                                                                                                                                                                                        | <b>Yes</b>                              |
| Incentives                                                                                                                                                                                                                                                                                                    | <b>Yes</b>                              |
| Prescribed instruments                                                                                                                                                                                                                                                                                        | <b>Yes</b><br>(aerial application only) |
| Land Use Planning                                                                                                                                                                                                                                                                                             | <b>Yes</b>                              |
| Risk Management Plans                                                                                                                                                                                                                                                                                         | <b>Yes</b>                              |
| Prohibition (under the Clean Water Act)                                                                                                                                                                                                                                                                       | <b>Yes</b>                              |
| Other: <ul style="list-style-type: none"> <li>• Specify Actions to be taken by a person or body to achieve Source Protection Plan objectives</li> <li>• Establish stewardship programs</li> <li>• Promote best management practices</li> <li>• Establish pilot programs</li> <li>• Govern research</li> </ul> | <b>Yes</b>                              |

### **Draft Policy Ideas**

Draft policy ideas have been developed to address the handling, storage and application of pesticide. These ideas were developed by staff in conjunction with:

- Our municipal working group
  - o Meeting #2 (January 20 , 2010)
- Our agricultural advisory group
  - o Meeting #1 (May 19, 2011)
  - o Meeting #2 (July 25, 2011)

The draft policy ideas are outlined in the attached table.

### **Rationale**

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of our policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of their Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for pesticide:

### **Effectiveness**

- The draft policy idea is to continue to manage pesticide application, handling and storage through Ontario's many existing protocols, regulations and requirements:
  - o Ontario's Cosmetic Pesticide Ban prohibits the use of pesticides for cosmetic use with exceptions for protecting the health and safety of people (such as controlling mosquitoes that can transmit West Nile Virus, plants that are poisonous to the touch, fleas on pets, indoor pests or pests that can cause structural damage to a home).
  - o Golf courses and certain public works must become accredited for Integrated Pest Management and report annually to the public about how they have minimized their pesticide use.
  - o Pesticide manufacturers, operators and vendors must be licensed and report their pesticide storage to local fire departments.
  - o Farmers and licensed exterminators must also be licensed through the Pesticide Safety Course which addresses all aspects of the threat.
  - o A pesticide permit issued by the MOE under the Pesticides Act is required to aerial spray.
- The one exception is prohibiting future pesticide storage at manufacturing, processing and wholesale facilities as well as storage by retail outlets and custom applicators. These storages could be associated with larger volumes of pesticide stored for longer periods of time which could pose a higher level of risk. It is also unnecessary for these types of new storages to be established in the small areas where they would be considered a significant threat. Since there is no operational need for them to be located where they would be considered a significant threat, future activities will be prohibited.
- Education and outreach will be effective in reminding people that non-aerial application must be done in accordance with the well-established practices and/or requirements in Ontario.

### **Cost / Impact**

- Nearly all application, handling and storage (except some types of future storage) will continue to be managed under existing requirements and regulations, therefore most people and facilities should not be impacted.
- Since it is unlikely and unnecessary that new pesticide storage for manufacturing, processing, wholesale, retail or custom applicators be established in significant threat areas, prohibiting this activity should have no financial or development impacts.
- The cost of implementing the prohibition would be administrative in nature
- The Ontario Drinking Water Stewardship Program, the Canada-Ontario Environmental Farm Plan and/or local Clean Water Programs (e.g. Ottawa and Rideau Valley) may provide funding for certain activities related to pesticide.
- Education and outreach for farms will encourage participation in the existing Environmental Farm Plan program which is a well-established and well respected program.

### **Practicality**

- Relying on Ontario's many requirements, protocols and regulations to manage pesticides avoids regulatory duplication.
- MOE guidance acknowledges prohibition is an effective and efficient source protection tool that may be appropriate for ensuring certain hazardous activities get located in less vulnerable areas. Since it is unlikely and unnecessary for certain types of future pesticide storages to be established in these small vulnerable areas, prohibition seems reasonable.
- The draft policy ideas are simply supporting and raising awareness about current requirements and protocols.

- Monitoring of the effectiveness of the policies would be achieved mainly through annual reports to the SPA from the Risk Management Official and the education and outreach program implementer.

#### **Acceptance**

- Nearly all application, handling and storage (except some types of future storage) will continue to be managed under existing requirements and regulations, therefore most people and facilities should not be impacted.
- Draft policy concepts will be provided to potentially affected property owners for review and input and their comments will be reviewed by the SPC prior to considering a draft policy for the draft Source Protection Plan.
- Local agricultural associations will also be consulted to obtain input on draft policy concepts.

#### **Additional Information**

- MOE Bulletin: Source Protection Planning Bulletin – Pesticide Permits

#### **Attached:**

- Draft Policy Ideas for Pesticide

### 3.0c Draft Policy Ideas for the Application, Handling and Storage of Pesticide

| Situation                                                                                                 | Description                                                                                                                              | Policy Tool and Concept                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Implementer                    | Monitoring Policy                                                                                                                                                                                                                                                                                                                                                                               | Legal Effect                      | Compliance Date                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Existing and Future<br><br>Application and storage of pesticide that is or would be a significant threat* | <b>#1 Residential</b><br>Property owners applying pesticide for personal residential use                                                 | <b>Education and Outreach</b> to promote: <ul style="list-style-type: none"> <li>Awareness of Ontario's Cosmetic Pesticide Ban</li> <li>Best Management Practices for exempted uses (e.g., poisonous plant infestations)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Municipality                   | Implementer to provide an annual report to the Source Protection Authority: <ul style="list-style-type: none"> <li>Description of the education and outreach initiatives that were carried out</li> <li>Estimate of uptake (e.g., numbers of participants in an information session)</li> <li>Feedback regarding the effectiveness of the policy and recommendations for improvement</li> </ul> | Must comply                       | Compliance date to be determined in consultation with the municipality                                                                                                |
|                                                                                                           | <b>#2 Non-Residential Application and Storage for Application Purposes</b><br>Farms, golf courses, utility companies, public works, etc. | <b>Education and Outreach</b> to promote: <ul style="list-style-type: none"> <li>Participation in the Environmental Farm Plan program</li> <li>Awareness of the vulnerable areas and the particular importance of complying with all content of the Pesticide Safety Course in these areas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |                                                                                                                                                                                                                                                                                                                                                                                                 |                                   |                                                                                                                                                                       |
|                                                                                                           | <b>#3 Storage at a Manufacturing, Processing or Wholesaling Facility or by a Retail Outlet or Custom Applicator</b>                      | <b>Specify Action:</b><br>Agrichemical Warehousing Standards Association (AWSA) shall ensure that these types of facilities in Intake Protection Zones scored 9 are in compliance with the AWSA requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AWSA                           | AWSA to notify the Source Protection Authority regarding the results of their consideration of this recommendation.                                                                                                                                                                                                                                                                             | This is a strategic action policy | Compliance date to be determined in consultation with AWSA                                                                                                            |
|                                                                                                           |                                                                                                                                          | <b>Prohibition</b> of future pesticide storage at these types of facilities in vulnerable areas scored 10.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Risk Management Official (RMO) | The Risk Management Official shall report annually to the Source Protection Authority with the information required in Section 65 of Regulation 287/07 related to the previous calendar year.<br><i>This will provide administrative, enforcement and compliance results.</i>                                                                                                                   | RMO must enforce                  | <u>Existing:</u><br>None<br><br><u>Future:</u><br>Must conform immediately upon Source Protection Plan taking effect                                                  |
|                                                                                                           | <b>#4 All</b>                                                                                                                            | <b>Specify Action:</b> <ul style="list-style-type: none"> <li>Ontario's Cosmetic Pesticide Ban prohibits the use of pesticides for cosmetic use (there are exceptions)</li> <li>Golf courses and certain public works must become accredited for Integrated Pest Management and report annually to the public how they have minimized their pesticide use</li> <li>Pesticide manufacturers, operators and vendors must be licensed and report their pesticide storage to local fire departments</li> <li>Farmers and licensed exterminators must also be licensed through the Pesticide Safety Course which addresses all aspects of the threat</li> </ul> Recommend that where pesticide application and storage is a significant drinking water threat the MOE replace their existing ad hoc inspections of storages and records with inspections at regular intervals. | MOE                            | MOE to notify the Source Protection Authority regarding the results of their consideration of this recommendation.                                                                                                                                                                                                                                                                              | This is a strategic action policy | Compliance date to be determined in consultation with MOE                                                                                                             |
|                                                                                                           | <b>#5 Aerial Application</b>                                                                                                             | <b>Prescribed Instrument:</b> Pesticide Permits issued under the <i>Pesticides Act</i><br><br>MOE shall ensure that aerial application of pesticides governed by Pesticide Permits are prohibited or managed (through terms and conditions attached to permits) so that this activity ceases to be or does not become a significant drinking water threat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MOE                            | MOE to notify the Source Protection Authority when guidance for staff, applications and related documents have been amended.                                                                                                                                                                                                                                                                    | Must conform                      | <u>Existing:</u><br>Compliance date to be determined in consultation with MOE<br><u>Future:</u><br>Must conform immediately upon Source Protection Plan taking effect |

\* Significant Threat Circumstances can be found on page 40

**3.0d Draft Policy Ideas:  
The Management of Agricultural Source Material -  
Aquaculture**  
**Date: August 23, 2011**  
**To: Mississippi-Rideau Source Protection Committee**  
**From: Sommer Casgrain-Robertson, Co-Project Manager**  
**Mississippi – Rideau Source Protection Region**

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**Recommendation 1:**

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for the management of agricultural source material – aquaculture and direct staff to undertake early engagement with potentially affected persons and bodies.

**Background**

**Drinking Water Threats**

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff property and contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat “circumstances” are listed in a provincial table accessible from the “Assessment Report” page of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

The provincial drinking water threat categories are:

- o Waste disposal sites
- o Sewage storage, treatment, transmission or disposal
- o **Agricultural source material** (e.g. manure) storage, application or **management**
- o Non-agricultural source material (e.g. biosolids) storage, handling or application
- o Farm animal pasturing, grazing, outdoor confinement areas or farm yards
- o Fertilizer storage, handling or application
- o Pesticide storage, handling or application
- o Fuel storage or handling
- o Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- o Organic solvents storage or handling
- o Road salt storage, handling or application
- o Snow storage
- o Aircraft de-icing

**Aquaculture**

This staff report discusses aquaculture which is one of the subcategories listed under “Agricultural Source Material” noted above (in bold). This staff report provides:

- o Background information about this drinking water threat; and
- o Draft policy ideas for how it could be addressed in a Source Protection Plan.

### The Threat

Aquaculture involves farm-raising cultured fish in facilities located either in the water or on land. The fish manure and by-products such as uneaten feed and dead fish are a type of agricultural source material. This agricultural source material that is generated is a source of contaminants, specifically pathogens, which can make their way into watercourses threatening the safety of drinking water sources in certain situations.

### Where is it a Significant Threat?

Aquaculture cannot be a significant drinking water threat based on the Provincial Tables of Circumstances. However, aquaculture is a moderate threat:

- In the following locations; and
- Under the following circumstances.

| Locations                    |                           | Circumstances                                                                                                                                                         |
|------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Intake Protection Zone (IPZ) | vulnerability score of 10 | <u>Moderate drinking water threat</u><br>The use of land or water for aquaculture. The land use may result in the presence of one or more pathogens in surface water. |
|                              | vulnerability score of 9  |                                                                                                                                                                       |

Maps showing the location of IPZs and their vulnerability scores are available on the "Assessment Report" pages of our website ([www.mrsourcewater.ca](http://www.mrsourcewater.ca)).

### Are There Existing Threats?

In the Mississippi-Rideau region there are no existing aquaculture facilities that are located in an area where they would be a moderate drinking water threat.

### Could There Be Future Threats?

There are some areas where future aquaculture facilities could be established creating new moderate drinking water threats.

| Drinking Water System |                                     | Vulnerability Score | Existing Moderate Threats | Future Moderate Threats |
|-----------------------|-------------------------------------|---------------------|---------------------------|-------------------------|
| IPZ                   | Carleton Place                      | 10                  | None                      | Not possible*           |
|                       |                                     | 9                   | None                      | Possible                |
|                       | Perth                               | 10                  | None                      | Not possible*           |
|                       |                                     | 9                   | None                      | Possible                |
|                       | Smiths Falls                        | 10                  | None                      | Not possible*           |
|                       | Ottawa – Britannia & Lemieux Island | 9                   | None                      | Not possible*           |

\*Future aquaculture facilities would not likely be approved due to lack of space and/or incompatible existing land uses.

## Existing Regulations

To establish a new commercial aquaculture facility, approval would be required from the Ministry of Natural Resources. An aquaculture license must be obtained in accordance with:

- *The Fish and Wildlife Conservation Act, Ontario Regulation 664/98*

The aquaculture license may have conditions pertaining to pathogens and diseases and require reporting of some disease organisms.

Certain facilities may require:

- Approvals under the *Ontario Water Resources Act, 1990*:
  - o Sewage Certificate of Approval for discharge of water containing fish manure and/or uneaten feed
  - o Section 34 – Permit to Take Water

Fish farms with the ability to remove settled material will be regulated under the:

- *Nutrient Management Act, Ontario Regulation 267/03* (guidance material is still being prepared)

| Aquaculture | Draft Policy Ideas |
|-------------|--------------------|
|-------------|--------------------|

## Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address the management of agricultural source material - aquaculture where it is or would be a moderate drinking water threat.

| Policy Tool                                                                                                                                                                                                                                                                                                                     | Address Aquaculture                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Education and Outreach                                                                                                                                                                                                                                                                                                          | <b>Yes</b>                                                                                                                                          |
| Incentives                                                                                                                                                                                                                                                                                                                      | <b>Yes</b>                                                                                                                                          |
| Prescribed instruments                                                                                                                                                                                                                                                                                                          | <b>Yes</b> - <i>Nutrient Management Act</i> instruments, <i>Ontario Water Resources Act</i> permit to take water and sewage Certificate of Approval |
| Land Use Planning                                                                                                                                                                                                                                                                                                               | <b>Yes</b>                                                                                                                                          |
| Risk Management Plans                                                                                                                                                                                                                                                                                                           | <b>No</b>                                                                                                                                           |
| Prohibition<br>(under the <i>Clean Water Act</i> )                                                                                                                                                                                                                                                                              | <b>No</b>                                                                                                                                           |
| Other: <ul style="list-style-type: none"> <li>• “Specify Actions” to be taken by a person or body to achieve the Source Protection Plan objectives</li> <li>• Establish stewardship programs</li> <li>• Specify and promote best management practices</li> <li>• Establish pilot programs</li> <li>• Govern research</li> </ul> | <b>Yes</b>                                                                                                                                          |

## **Draft Policy Ideas**

Draft policy ideas have been developed to address aquaculture. Since there are no existing aquaculture facilities that are a drinking water threat, no policies for existing sites are proposed. The draft policy ideas are outlined in the attached table.

## **Rationale**

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of our policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of the Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for aquaculture:

### **Effectiveness**

- According to the Provincial Tables of Circumstances, aquaculture facilities cannot pose a significant drinking water threat. Therefore, a policy for aquaculture is not a mandatory part of the Source Protection Plan. Nevertheless, it seems prudent to include a policy to address this land use activity where it would pose a moderate threat to drinking water sources. There are no existing threats, however, the aquaculture industry is growing and it is conceivable that an aquaculture facility could be proposed to be located within a vulnerable area in the future.
- The policy idea is to request that the regulating agencies consider the proximity and protection of the municipal surface water intakes when they are reviewing applications for future aquaculture facilities. This should be effective in addressing the threat since these agencies have staff knowledgeable in the potential environmental effects associated with aquaculture and the measures required to prevent or mitigate those effects.

### **Cost / Impact**

- No existing businesses would be affected by this policy.
- The cost of delivering this policy would be administrative in nature:
  - Provincial agencies (MOE, OMNR and OMAFRA) may wish to alter their guidance materials and information used by staff who review applications for approvals under their various provincial instruments.

### **Practicality**

- The policy idea is directed at the provincial agencies that currently regulate aquaculture, thereby making use of existing tools and processes and preventing regulatory duplication.
- Monitoring would consist of the provincial agencies providing reports to the SPA regarding their review of any aquaculture proposals within the vulnerable areas and the decisions rendered.

### **Acceptance**

- Municipal staff from each municipality where the policy would be implemented supported including in the Source Protection Plan, a policy to address certain moderate threats such as aquaculture.

- Municipal stakeholders also felt that future proposals to establish certain land uses within the vulnerable areas should be subject to a greater level of scrutiny to ensure municipal source water is protected.
- Draft policy concepts will be provided to potentially affected people and bodies for review and their input and comments provided to the Source Protection Committee prior to considering a draft policy for the draft Source Protection Plan.

#### **Additional Information**

- MOE Bulletin: Overview of Prescribed Instruments

#### **Attached:**

- Draft Policy Ideas: The Management of Agricultural Source Material – Aquaculture

3.0d      Draft Policy Ideas: The Management of Agricultural Source Material – Aquaculture

| Situation                            | Description                                                 | Policy Tool and Concept                                                                                                                                                                                                                                                                                                                                                                        | Implementer                                                                                           | Monitoring Policy                                                                                                                                                      | Legal Effect                      | Compliance Date                                       |
|--------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------|
| #1<br>Existing<br>Moderate<br>Threat | Existing aquaculture facility that is a moderate threat     | There are no existing moderate threats so no policy is proposed.                                                                                                                                                                                                                                                                                                                               | n/a                                                                                                   | n/a                                                                                                                                                                    | n/a                               | n/a                                                   |
| #2<br>Future<br>Moderate<br>Threat   | Future aquaculture facility that would be a moderate threat | <b>Prescribed Instrument:</b><br>The Ontario Ministry of the Environment (MOE) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) should consider the potential impact on drinking water sources prior to issuing approvals under the <i>Ontario Water Resources Act</i> and <i>Nutrient Management Act</i> where new aquaculture facilities would be a moderate threat. | MOE<br>Environmental Assessment & Approvals Branch,<br>OMAFRA<br>Nutrient Management Approvals Branch | MOE/OMAFRA requested to notify the Source Protection Authority of any applications received related to aquaculture where it would be a moderate drinking water threat. | Must have regard                  | Immediately upon Source Protection Plan taking effect |
|                                      |                                                             | <b>Specify Action:</b><br>The Ontario Ministry of Natural Resources (MNR) should consider the potential impact on drinking water sources prior to issuing approvals under the <i>Fish and Wildlife Conservation Act</i> where new aquaculture facilities would be a moderate threat.                                                                                                           | MNR<br>Local district office                                                                          | MNR requested to notify the Source Protection Authority of any applications received related to aquaculture where it would be a moderate drinking water threat.        | This is a strategic action policy |                                                       |

\* Significant Threat Circumstances can be found on page 48

## 4.0 Community Outreach

**Date:** August 23, 2011  
**To:** Mississippi-Rideau Source Protection Committee  
**From:** Sommer Casgrain-Robertson, Co-Project Manager  
Mississippi – Rideau Source Protection Region

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### **Recommendation:**

That the Mississippi-Rideau Source Protection Committee receive the Community Outreach staff report for information.

### **Background**

Staff and MRSPC members participate in many different community outreach activities to raise awareness and understanding of the source protection planning process. These activities include information booths at events, presentations at meetings and articles in newsletters and local papers. It is important that staff and members keep each other informed about the activities they are involved in so that we can coordinate our participation and prepare appropriate materials in advance. This includes coordinating with our neighbouring regions for outreach covering Eastern Ontario.

### **Past Activities**

Members & staff are asked to give a verbal update on any other activities that took place in the past month related to source protection.

1. *Source Protection Plan Advisory Committee Teleconference*
  - o August 18, (Allison and Tiffany participated)
2. *Meeting with Raisin-South Nation staff to Compare Draft Policy Concepts*
  - o August 30, (Sommer, Brian, Allison and Tiffany participated)

### **Upcoming Activities**

Members & staff are asked to give a verbal update about any other activities they know about in the coming months related to source protection.

1. *Lanark County Council*
  - o September 7, Perth (Sommer presenting)
2. *Ontario East Municipal Conference*
  - o September 14 – 16, Kingston (Sommer attending one day)
3. *Source Protection Plan Advisory Committee Meeting*
  - o September 19, Toronto (Sommer, Allison and Tiffany attending)
4. *Mississippi Valley Source Protection Authority*
  - o September 21, Almonte (Sommer attending)
5. *Rideau Valley Source Protection Authority*
  - o September 22, Manotick (Sommer attending)
6. *Eastern Regions Meeting*
  - o September 26, Brockville (Sommer and Brian attending)
7. *Eastern Ontario Municipal Water Association Conference*
  - o September 28, Smiths Falls (Sommer presenting)

8. *Municipal Working Group Meeting*

- o October 20, Perth (staff and some members attending)