

MISSISSIPPI-RIDEAU SOURCE PROTECTION REGION
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MINUTES

Mississippi-Rideau
Source Protection Committee **April 2, 2009** **#3/09**

- Present:** George Braithwaite Scott Bryce
Carol Dillon Richard Fraser
Domenic Idone Paul Knowles
Patricia Larkin Peter McLaren
Beverly Millar Eleanor Renaud
Janet Stavinga (Chair) Mary Trudeau
- Jean Guy Albert (Medical Officer of Health Liaison)
Alan Arbuckle (Source Protection Authority Liaison)
Mary Wooding (Ministry of the Environment Liaison)
- Regrets:** Alex Cullen Randy Malcolm
- Staff:** Charles Billington Sommer Casgrain-Robertson
Dell Hallett Roz Kee
Brian Stratton
- SPA Members:** Mark Burnham (Chair, Mississippi Valley Conservation)
- Guests:** Steve Wilson (Golder Associates Ltd.)

1.0 Welcome

Chair Stavinga welcomed everyone to the meeting and introduced members of the public in attendance: Councillor Dianne Coates (Township of Montague), Mark Burnham (Chair, Mississippi Valley Conservation), Barclay Cormack (Rideau Valley Conservation Authority Middle Advisory Board), Jim Beeler, Karen Dunlop and Forbes Symon (Municipality of North Grenville), Bob Moore and Paul Snider (Township of Drummond/North Elmsley), Dell Hallett and Charles Billington (Rideau Valley Conservation Authority) and Steve Wilson (Golder Associates Ltd.).

Chair Stavinga then welcomed Jean-Guy Albert who will be the interim Medical Officer of Health Liaison. Mr. Albert introduced himself and explained that he is the Program Manager of the Environmental and Health Protection Division for Ottawa Public Health. This encompasses both safe drinking water and safe recreational water. Chair Stavinga had Committee members introduce themselves and indicate what interest(s) they represent on the Committee. Staff was then asked to introduce themselves.

a) **Agenda Review**

Chair Stavinga went over the purpose of the meeting and the agenda.

b) **Notice of Proxies**

None

c) **Adoption of the Agenda**

Motion 1-03/09

That the Agenda be adopted.

Carried

d) **Declarations of Interest**

None

e) **Approval of Minutes**

Motion 2-03/09

That the minutes of the Mississippi-Rideau Source Protection Committee meeting of March 5th, 2009 be approved as amended.

Carried

f) **Status of Action Items**

Sommer Casgrain-Robertson reported that staff is still updating members' Assessment Report materials (Action Item #3). These revised materials will be completed by the May 7 meeting.

Chair Stavinga provided an update on Action Item # 7. The MRSPC's motion calling on the Province to create an Ottawa River Inter-jurisdictional Committee was passed by both the Mississippi Valley and Rideau Valley Source Protection Authorities at their March meetings. Chair Stavinga also circulated the motion to the National Capital Commission and will send it to the Chair of the Raisin-South Nation Source Protection Committee. Chair Stavinga is also working with Councillor Doucet who introduced a similar motion at Ottawa City Council in February. That motion was referred to staff and is scheduled to return to the Planning and Environment Committee in April. Chair Stavinga will continue to work with local partners on this issue to ensure cohesive and collective positioning and to keep the momentum moving forward.

Members asked if communities upstream of the City of Ottawa were involved in this effort. Chair Stavinga informed the Committee that she had been giving some thought to the involvement of upstream communities and will report back to the Committee with an approach.

Members had no further questions about the Action Items.

Motion 3-03/09

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

Carried

g) Correspondence

Chair Stavinga highlighted the letter from the Minister of the Environment approving Terms of Reference for the Rideau Valley Source Protection Area. Once again, he praised the Committee for addressing public comments through changes to the *proposed* Terms of Reference.

2.0 Community Outreach

Sommer Casgrain-Robertson gave a summary of the Municipal Partners Meeting held on March 31, 2009. She informed the Committee that it was well attended by a number of different municipalities and there was good discussion on a variety of issues. Municipal staff and council members were updated on the approval of the Terms of Reference and the roll-out of the Assessment Reports, and the municipalities provided valuable feedback about how they want to be involved in the development of Assessment Reports and Source Protection Plans. Chair Stavinga thanked Ms. Casgrain-Robertson for providing excellent presentations at the Partners Meeting and informed members that she had received a lot of positive feedback from municipal staff and council members who attended.

Chair Stavinga noted that the Source Protection Authorities, at their March meetings, approved a motion requesting an extension until April 27, 2010 for the development of the Assessment Report. They also approved comments on the Ontario Drinking Water Stewardship Program.

Peter McLaren reported that Ms. Casgrain-Robertson gave an excellent presentation at the Lanark Seed and Forage Show and did a great job answering questions.

Carol Dillon reported that the Ontario Environmental Networks' (OEN) conference call on March 19 discussed proposed amendments to the Navigable Waterways Act. The Canadian Environmental Law Association will also be asking for clarification on provincial versus federal roles. Participants also discussed the Ontario Drinking Water Stewardship Program review and the OEN will be submitting a letter to MOE that covers the same topics as those being considered by the MRSPC. Compensation for property owners continues to be a key issue. The aim of all groups on the call is to continue to raise awareness by keeping these topics on the table.

Carol Dillon attended a source water protection workshop hosted by the Water Guardians Network in Toronto on March 25. One of the topics discussed was the protection of source water for private wells. Ms. Dillon

also attended the Ontario Headwaters Institute Conference - "Preserving Ontario's Freshwater" on March 27 in Toronto. The keynote speaker was Ontario's Environmental Commissioner who discussed three myths about water that could explain low attendance at source protection open houses: abundance, constancy and detachment. Sessions focused on water quantity, climate change, and the energy required to produce drinking water.

Motion 4-03/09

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

Carried

3.0 Assessment Report Development

Sommer Casgrain-Robertson reminded members that full technical studies were provided on CD and are available to the public on CD. The Technical Study summaries prepared by staff are intended to summarize study findings in a reader friendly manner and will be an important communications tool during public consultation. Once the MRSPC approves summaries as *draft for public consultation* they will be provided to the Source Protection Authorities, municipalities and then the public. Public comments received on *draft* study findings will be considered by the MRSPC when developing their *draft* Assessment Reports in December.

Brian Stratton presented the *preliminary draft* study findings for the Carp, Kemptville and Merrickville groundwater studies. Mr. Stratton acknowledged the important involvement and excellent working relationship with the following municipal staff: Jim Beeler (Municipality of North Grenville), Michel Kearney (City of Ottawa), and Ryan Morton (Village of Merrickville). Steve Wilson from Golder Associates was the lead consultant for the Kemptville and Merrickville studies and Brian Byerley from Golder was the lead consultant for the Carp study.

Staff from the Municipality of North Grenville asked why transport pathways increased the intrinsic vulnerability in parts of the Merrickville and Kemptville wellhead protection areas but not Carp. Mr. Stratton explained that transport pathway adjustments were made in Merrickville and Kemptville to account for bedrock quarries. Dillon's review concluded that bedrock quarries warranted an increase in intrinsic vulnerability because the overburden had been stripped making the aquifer more vulnerable to contamination in that area. There were no bedrock quarries in the Carp wellhead protection area therefore no adjustments were made to the vulnerability scores. Dillon also concluded that private wells, which were also evaluated as potential transport pathways, were not significant conduits to the aquifer and therefore did not warrant an adjustment to the vulnerability score.

Staff from the Municipality of North Grenville asked why Carp's vulnerability scores were not higher since much of that area is sand at

surface. Mr. Stratton explained that the intrinsic aquifer vulnerability in that area was scored “high” which is the maximum score it can receive.

Members asked what impact the list of threats would have on land use practices (e.g. can road salt not be used in areas with a vulnerability score of 10). Mr. Stratton emphasized that a check mark beside one of the 21 broad threat categories listed in the table in the study summary (e.g. check mark beside road salt application for an area with a vulnerability score of 10) simply means there is a specific circumstance related to that threat that could be a significant threat. Road salt application is not a blanket threat, but the application of road salt at a certain rate on a particular density of road network could be. Mr. Stratton stressed that if there is a check mark beside one of the broad threat categories you must look up the specific circumstance that would warrant a significant threat in the tables provided.

Members asked where the Carp landfill was in relationship to the wellhead protection area. Mr. Stratton confirmed that it is not in the Carp wellhead protection area, it is near the Queensway closer to Stittsville.

Members asked why the capture zones (travel times) for the shallow aquifer in Kemptville are not contiguous. Steve Wilson explained that the areas are determined by taking the outside limit of all reasonable model runs which is why a particular zone may not be contiguous.

Members asked if the Merrickville-Wolford landfill and Kemptville College had been evaluated as potential threats in the Kemptville technical study. Mr. Stratton explained that Dillon Consulting is looking at existing land uses and identifying existing potential threats. This threats study is underway and should be completed over the next few months.

Members asked why the Oxford/shallow aquifer was included in the wellhead protection area. Mr. Stratton explained that while the municipal wells extend down into the Nepean/deep aquifer the casing only extends into the shallow aquifer. This means that even though the vast majority of water drawn into the municipal wells is from the deep aquifer, under certain conditions, water could be drawn from the shallow aquifer. Therefore both aquifers must be evaluated and protected in order to fully protect the source of municipal water. Mr. Wilson added that a considerable amount of thought went into deciding to include both aquifers. For future wells, it would be very important to extend the casing all the way to the Nepean aquifer to prevent water from the shallow aquifer from entering the municipal well. There is discussion underway with North Grenville staff about the feasibility of extending the well casings down to the Nepean aquifer to eliminate the shallow aquifer as a source of water.

Members asked how threats and vulnerabilities related to quarries. Mr. Stratton explained that quarries are one of the transport pathways that must be considered when determining the intrinsic vulnerability of an area. Transport pathways are human alterations to the landscape that provide an increased opportunity for a contaminant at surface to get into an aquifer (e.g. removing soil above an aquifer). For the Kemptville and

Merrickville wellhead protection areas the consultants determined that bedrock quarries fit the definition of a transport pathway and therefore increased intrinsic vulnerability scores from low to medium, or medium to high within the footprint of these quarries. Quarries as a land use activity are not included in the prescribed list of threats developed by the Province. Members asked why quarries increase the intrinsic vulnerability. Mr. Stratton explained that the vulnerability increases because the quarries reduce the thickness of bedrock above the aquifer therefore reducing its layer of protection and making it more susceptible to contamination.

Members asked if private wells in Kemptville went into the Nepean Aquifer. Mr. Stratton explained that there is a high level of confidence that the private wells do not go into the Nepean Aquifer because: 1) private wells are drilled until a sufficient amount of water is reached which would occur in the Oxford formation above the Nepean Aquifer; and 2) the Municipality issues permits for all new private wells and they prohibit them from extending into the Nepean Aquifer.

Members asked if there were many private wells in Kemptville in areas with a vulnerability score of 8 or 10. Municipal staff confirmed that although most of that area is serviced with municipal water there are about 50 to 100 private wells in those areas. The municipality is trying to identify wells not in use and have the property owner properly decommission them. Other wells exist in subdivisions that are not currently serviced with municipal water.

Members asked why there were small areas with a vulnerability score of 8 within large areas with a vulnerability score of 10 in the Kemptville wellhead protection area. Members wondered why these small anomalies were not thrown out and made a ten. Mr. Wilson explained that the score of an area is the edge of the numerical modeling exercise and the removal of these data calculations or rounding off of these areas would make the model scientifically invalid. The reason for these small areas of lower vulnerability could be pockets of a less porous soil type or thicker soil. Members were concerned about the public perception of these small “blocks” on the map. Mr. Wilson indicated that these areas were determined using current geologic soils mapping and that each layer of information added to the calculation has in itself an inherent level of uncertainty. The vulnerability scores on the maps were determined using the ISI (intrinsic susceptibility index) method of calculating vulnerability that takes into account soil type & soil thickness. These scores are a conservative calculation.

Staff from North Grenville added that soil geology in that area is known to be complex and the small areas of lower vulnerability may reflect pockets of clay lens known to be in the area. They also recommended that it was important to retain data gathered at this time, since there would be a planning exercise later in the process that could assess how these small areas should be addressed. At this stage science determines the size and appearances of the vulnerable areas.

Members asked if there were a number of runs that resulted in the appearance of rectangular pixels. Mr. Wilson indicated that runs were used to determine the capture zones and soils mapping was used to determine the intrinsic vulnerability. Mr. Wilson indicated that soils information had not been verified in the field and was based on available soils maps.

Members asked if the Merrickville deep aquifer ISI map shows high vulnerability in the north-west corner. Staff confirmed that was correct.

Chair Stavinga summarized the discussion by emphasizing the need to provide the public not only with the science, but an understanding of the larger process which is iterative. There are still many layers of review ahead for the MRSPC, municipalities and the public.

Members recommended a number of amendments to the study summaries. These amendments provided greater clarity and understanding and included a glossary, links to referenced documents, an explanation of how the study findings relate to private well owners, more information about how transport pathways were evaluated, and the inclusion of a site specific cross-section.

Chair Stavinga opened the floor to members of the public in attendance. Staff from the Municipality of North Grenville requested that the study summary for Kemptonville be revised to include: information about the Municipality's permitting program for new private wells, information about the Municipality's efforts to identify the location of private wells in the urban core, and an explanation about why vulnerability scores needed to be determined for both the shallow & deep aquifers because the casing of the municipal wells only extends into the shallow aquifer even though the wells get the majority of their water comes from the deep aquifer.

Councillor Coates from the Municipality of Montague inquired about alternative methods for mapping, the future use of the data collected, and the impact of the data collected. Mr. Wilson responded that the technical studies were bound by the Technical Rules issued by the Province under the Clean Water Act. Mr. Stratton explained that how the information will be used and the impact of the technical studies will be determined by a future Source Protection Plan regulation to be issued by the Province.

Staff provided an additional list of proposed amendments to the technical study summaries with the goal of providing greater clarity. A list of these amendments was provided to members in their blue folders.

Motion 5-03/09

Moved by: Paul Knowles
Seconded by: Eleanor Renaud

That the Mississippi-Rideau Source Protection Committee direct staff to amend the *Preliminary Draft Groundwater Study summaries for Carp,*

Kemptville and Merrickville as outlined in Attachment 1.

Carried

Motion 6-03/09

Moved by: George Braithwaite
Seconded by: Beverly Millar

That the Mississippi-Rideau Source Protection Committee direct staff to include the following amendments to the Preliminary Draft Groundwater Study summary for Kemptville:

- The Municipality of North Grenville has meticulously identified the location of private wells in the urban core;
- The Municipality of North Grenville issues permits for new private wells and they require an inspection during construction and they prohibit private wells from extending into the Nepean aquifer; and
- The Municipal wells in Kemptville extend into the Nepean aquifer (deep aquifer) but their casing only extends into the Oxford formation (shallow aquifer) meaning water from the Oxford formation can enter the well.

Carried

Motion 7-03/09

Moved by: George Braithwaite
Seconded by: Peter McLaren

That the Mississippi-Rideau Source Protection Committee direct staff to include site specific aquifer cross-sections in the Preliminary Draft Groundwater Study summaries for Carp, Kemptville and Merrickville.

Carried

Motion 8-03/09

That the Mississippi-Rideau Source Protection Committee approve the following studies and their summaries as *Draft* for public consultation, as amended:

- Carp Groundwater Study;
- Kemptville Groundwater Study; and
- Merrickville Groundwater Study.

Carried

4.0 Ontario Drinking Water Stewardship Program Consultation

Sommer Casgrain-Robertson provided members with an overview of local efforts to solicit comments from local stakeholders on the stewardship program. These efforts included a public meeting, and circulating and advertising a questionnaire that people could fill out online or by hand. Seven completed questionnaires were received and one letter from the Municipality of Montague. These questionnaires and

letter will be mailed directly to MOE for their consideration along with comments from the Source Protection Authorities and the MRSPC.

Ms. Casgrain-Robertson summarized the comments proposed by staff and passed by the Source Protection Authorities.

Members discussed whether conservation authorities should be allowed to apply directly for Outreach and Education funding. Some members were concerned about conservation authorities being eligible to apply for the same pot of money as small non-governmental organizations who do not have the same staffing resources. They felt the NGOs would be at a disadvantage. Members decided that the important factor was encouraging all groups applying for Outreach and Education funding to partner with other local groups (conservation authorities with NGOs and NGOs with conservation authorities).

Members also discussed the need for MOE to inform local source protection staff about projects approved for “Outreach and Education” and “Special Projects” funding in their region.

Motion 9-03/09

Moved by: Patricia Larkin
Seconded by: Domenic Idone

That the Mississippi-Rideau Source Protection Committee direct staff to include the following amendments to the draft Ontario Drinking Water Stewardship Program comments:

- Re-title comment number 7 to read “Source Protection Committees set Local Priorities for Early Actions”; and
- Revise comment number 8 to read “Conservation Authorities should be able to apply directly to the MOE for Outreach and Education funds. All applicants be encouraged to pursue partnership opportunities. All funded Outreach and Education activities in a given Region should be completed in coordination with the local Source Protection Committee (e.g. inform local SPC of approved project, request information from local source water staff)”.

Carried

Motion 10-03/09

Moved by: George Braithwaite
Seconded by: Carol Dillon

That the Mississippi-Rideau Source Protection Committee direct staff to include the following amendments to the draft Ontario Drinking Water Stewardship Program comments:

- Revise comment number 4 to read: “There is a demonstrated demand for assistance in the Mississippi-Rideau Region among rural landowners with improperly abandoned wells, wells in need of upgrade and outdated

- septic systems;
- Replace “highest priority” with “higher priority” in Figure 1; and
- Remove “especially prior to Source Protection Plans being approved” in comment number 12.

Carried

Motion 11-03/09

That the Mississippi-Rideau Source Protection Committee approve the following comments for submission to the Ontario Ministry of the Environment, recommending changes to the Ontario Drinking Water Stewardship Program, as amended.

Carried

5.0 Other Business

Members were asked to read the publication entitled “From Impacts Towards Adaption: Mississippi Watershed In a Changing Climate” in their blue folders before their May 7 meeting. A member of the Mississippi Valley Field Naturalists will provide a short presentation on the publication at that meeting.

Members inquired about a new landfill site in Tiny Township called Site 41. Mary Wooding, MOE Liaison Officer, will work with MOE and the Source Protection Committee of that area to collect information which will be provided to the MRPC at their next meeting

.6.0 Member Inquiries

None

7.0 Next Meeting

Date: Thursday, May 7, 2009
 Time: 7:00 pm (“meet and greet” at 6pm)
 Location: Carleton Place Town Hall Auditorium

8.0 Adjournment

The meeting was adjourned at 5.30 pm.

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Janet Stavinga
 Chair

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Roz Kee
 Recording Secretary

Attachment 1

Amendments to “Preliminary Draft Groundwater Study Summaries”

For the **Carp, Kemptville and Merrickville** groundwater studies

- a) Section entitled ‘Facts about the _____ Municipal Drinking Water System’ (pages 20, 33, 52), *add*

- Drinking water quality is consistently in compliance with the Ontario Drinking Water Standards

- b) Section entitled ‘Step 3 – Identify Threats and Issues’ (pages 28, 47, 66), *replace*

Once you determine the areas where a drinking water supply is vulnerable to contamination, you need to identify what land use activities would pose a risk in those areas. This task can be broken into two pieces: land uses that could cause contamination (threats), and land uses that are causing contamination (issues).

- (1) **Threats** are existing or future land use activities that could contaminate a drinking water supply (they pose a *threat* to drinking water quality);
- (2) **Issues** are existing land use activities that are contaminating a drinking water supply (they are known drinking water quality *issues*).

With

Once you determine the areas where a drinking water supply is vulnerable to contamination, you need to identify what land use activities could cause contamination if they were located in those areas (threats). You also need to identify any existing water quality problems (issues) and link it back to the land use(s) causing the contamination.

~~This task can be broken into two pieces: land uses that could cause contamination (threats), and land uses that are causing contamination (issues).~~

- (1) **Threats** are existing or future land use activities that could contaminate a drinking water supply (they pose a *threat* to drinking water quality);
- (2) **Issues** are documented cases of water quality contamination approaching or exceeding acceptable provincial levels. While some issues naturally occur, many are caused by an existing or historic land use activity.

- c) Section entitled ‘Inventory existing significant threats’ (pages 29, 48, 67), *replace*

The exception is activities that pertain to dense non-aqueous phase liquids (DNAPLs). These are chemicals, such as trichloroethylene, that do not dissolve in water, making them difficult to remove from the aquifer.

With

The exception is activities that pertain to dense non-aqueous phase liquids (DNAPLs). These are chemicals, such as trichloroethylene, that sink to the bottom of the aquifer, making them difficult to remove from the aquifer.

d) Section entitled '3b) Issues' (pages 31, 50, 69), *replace*

In the _____, Dillon is currently reviewing drinking water quality data to determine whether any issues exist.

with

While all reports to date indicate that _____'s drinking water quality is in compliance with the Ontario Drinking Water Standards, Dillon will be reviewing all available information to ensure there are no drinking water issues, as required by the Province as part of this study.

For the Carp groundwater study

a) Section entitled 'Facts about the Carp Municipal Drinking Water System' (page 20) *add*

- A multi-level monitoring well has been installed near the municipal well to provide early warning if the aquifer's water quality begins to change.