

MISSISSIPPI-RIDEAU SOURCE PROTECTION REGION
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MINUTES

Mississippi-Rideau Source Protection Committee **June 4, 2009** **#5/09**

Present:

George Braithwaite	Scott Bryce
Alex Cullen	Carol Dillon
Richard Fraser	Patricia Larkin
Peter McLaren	Randy Malcolm
Beverly Millar	Eleanor Renaud
Janet Stavinga (Chair)	Mary Trudeau

Jean Guy Albert (Medical Officer of Health Liaison)
Mark Burnham (Source Protection Authority Liaison)
Mary Wooding (Ministry of the Environment Liaison)

Regrets: Paul Knowles Christine Leadman

Staff: Sommer Casgrain-Robertson Roz Kee
Brian Stratton

SPA Members: None

Guests: Brian Byerley (Golder Associates)
Michel Kearney (City of Ottawa)
Chris Raincourt (Malroz Engineering)
Tammy Rose (City of Ottawa)
Sean Sterling (Intera Engineering)

1.0 Welcome

Chair Stavinga welcomed everyone to the meeting. She asked Committee members to introduce themselves and indicate which sector or interest they represent, she then asked staff to introduce themselves. Chair Stavinga reviewed that members of the public wishing to speak to an agenda item must fill out a speaker form at the back, they will then have five minutes to address the Committee and their name and comments will be recorded as part of the meeting minutes.

Quorum was met at 7:10pm.

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 1-05/09

That the Agenda be adopted.

Carried

d) **Declarations of Interest**

None

e) **Approval of Minutes**

Motion 2-05/09

That the minutes of the Mississippi-Rideau Source Protection Committee meeting of May 7, 2009 be approved as amended.

Carried

f) **Status of Action Items**

Chair Stavinga gave an update on Action Item #1: Ottawa River Inter-Jurisdictional Committee. She informed members that Ottawa City Council carried the motion on consent at their May 13 meeting. Chair Stavinga is also working with Mary Wooding to identify stakeholders that should be involved.

Chair Stavinga also gave an update on Action Item #3: Site 41 – Landfill in Tiny Township. She explained that she had discussed the issue with Lynn Dollin, Chair of the South Georgian Bay Lake Simcoe Source Protection Committee which is the region where Site 41 is located. Chair Dollin indicated that their Committee had provided all of their technical studies to the bodies and agencies involved, and that a very small portion of the site is located in a wellhead protection area but not in an area where the landfill would be a significant threat. The South Georgian Bay Lake Simcoe Source Protection Committee has noted their concerns and will document them where possible. The Committee is feeling the frustration of the local community. A member asked Chair Stavinga to keep the MRSPC informed about future developments or new information. The member felt that just because the landfill may not affect the municipal water supply it is still an important issue because it could impact private wells and MOE is responsible for everyone's drinking water.

Motion 3-04/09

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

Carried

g) Correspondence

None

2.0 Assessment Report Development

Sommer Casgrain-Robertson reminded everyone that preliminary draft study summaries of the Almonte, Munster, Richmond and Westport groundwater studies were provided in the agenda and full consultant reports were provided to members on CD and are available to the public. The study summaries prepared by staff are intended to present study findings in a reader friendly manner and will be an important communications tool during public consultation. Once the MRSPC approves studies and their summaries as *draft for public consultation* they will be presented to the Source Protection Authorities, municipalities and then the public. If the MRSPC approved the studies tonight, public open houses would be held in late July.

Ms. Casgrain-Robertson informed members that open houses are being held in Carp, Merrickville and Kemptville on June 8, 10 and 11 respectively to present the draft findings of those groundwater studies to local residents. The open houses were advertised in local newspapers and invitations were mailed to all properties in areas that have a vulnerability score of 8 or 10. Public input and comments received at the open house or in writing will be considered by the MRSPC when developing their *draft* Assessment Report later this year.

Brian Stratton presented the *preliminary draft* groundwater study findings for Almonte, Munster, Richmond and Westport. Mr. Stratton acknowledged the important contributions and excellent working relationship with the following municipal staff: Michel Kearney and Tammy Rose (City of Ottawa), Tim Kocialek (Town of Mississippi Mills) and Scott Bryce (Village of Westport). Mr. Stratton also introduced the consultants who completed the groundwater studies: Sean Sterling from Intera Engineering, lead consultant on the Almonte study; Bryan Byerley from Golder Associates, lead consultant on the Munster & Richmond studies; and Chris Raincourt from Malroz Engineering, lead consultant on the Westport study. A copy of Mr. Stratton's presentation is attached.

Chair Stavinga reminded members of the public that they are welcome to speak to any item on the agenda. Individuals can address the Committee for up to five minutes, they simply need to fill out a speaker form at the back.

Mr. Bill Duncan, Canadian Property Rights Coalition, raised concerns about threats to the Almonte municipal wells. He pointed to the close proximity of Highway 29 to well 6 and noted that this well could be impacted should any transportation problems like a spill occur. He noted the location of a municipal garage, Fire Hall and road salt storage within 100 meters of well 5, and the existing sewage lagoons that have overflowed in the past impacting water quality in the Mississippi River. Mr. Duncan explained that while the Town of Mississippi Mills is building a new sewage treatment plant, the new design incorporates the existing lagoons. The lagoons will be used to handle overflow rather than by-passing the plant into the river. Mr. Duncan stated that the new plant will not be able to handle spring thaws or heavy rain

because of broken sanitary pipes.

Mr. Duncan also raised concerns about water quality downstream of Almonte, emphasizing that everyone's drinking water should be safe. He highlighted that the Mississippi River flows into the Ottawa River which provides many people with drinking water. He explained that towns upstream of Ottawa contribute sewage to the Ottawa River, and the Town of Arnprior dumps sewage into the Madawaska River which flows into the Ottawa River. Mr. Duncan also questioned why the area where the lagoons are located was not scored a 10 because of the high drinking water threat the lagoons pose.

Sean Sterling from Intera Engineering explained that a wellhead protection area study completed for Almonte in 2001/2002 identified the lagoons as high risk and they have been under study since then. The Town of Mississippi Mills installed monitoring wells beside the lagoons and they have been monitored multiple times a year for the last four or five years. The Ministry of the Environment is also aware and involved. To date there is no data that shows well 6 is influenced by the lagoon.

Mr. Sterling also clarified that the vulnerability scores of two, four, six, eight and ten are not representative of land use activities that may exist in those areas, the scores are solely based on soil type and thickness in that area. Mr. Stratton explained the scores indicate how vulnerable groundwater in that area is to contamination, not if there are existing threats in the area. Mr. Stratton explained the intrinsic vulnerability was increased from low to medium where the lagoons are located to reflect the potential that the lagoons could act as a transport pathway to the aquifer. Mr. Sterling went on to explain that another consultant is currently identifying existing significant threats around municipal wells and intakes, including the Almonte wells, and those results will be presented to the MRSPC this fall.

Mr. Stratton assured Mr. Duncan that transportation corridors will also be considered by the MRSPC and will be dealt with either in the Source Protection Plan or through emergency response plans. Mr. Stratton also explained that road salt handling would be evaluated as a potential risk and the level of risk is dependent on the management and density of road networks in proximity to a municipal wellhead.

Chair Stavinga thanked Mr. Duncan for his comments and assured him that none of the issues he raised are off the MRSPC's radar and they will be looked at as part of the source protection planning process.

A member observed that the vulnerability scores were only even numbers and asked if this was a requirement of the technical rules. Mr. Stratton confirmed that it was.

A member asked if every home in Munster was serviced with municipal water. Mr. Stratton confirmed they were and the member suggested it would be beneficial to outline the serviced area on the groundwater study maps, especially King's Park Subdivision in Richmond.

A member noted that the intrinsic vulnerability had been increased because private wells in the area could act as transport pathways, and asked if the

wells were actively being used. Mr. Stratton explained that we do not know if the wells are active, they are part of the provincial well record and the consultant raised the intrinsic vulnerability due to the density of the wells. The member asked if more data would be collected as part of this study. Mr. Stratton noted that consultants are noting data gaps in some studies and more data could be collected as part of future assessment reports.

Chair Stavinga asked if the same methodology was used to evaluate the contributions from the shallow and deep aquifers in Almonte, Munster and Richmond. Mr. Stratton confirmed that the same methodology was used for all three locations. Mr. Stratton further highlighted that while the Almonte wells are supplied by two aquifers, the shallow aquifer has very little influence on the wells. Results based on local geology and modeling show that all the water being drawn from the shallow aquifer, comes from within 100 meters of the wells.

A member noted that a tributary of the Mississippi River runs through three small areas each with a vulnerability score of 10. The member asked if these areas should be connected rather than having areas scored an 8 in between them. The concern was if a land use activity was permitted in the area scored an 8 that resulted in contaminants getting into the river which could then be transported to the adjacent areas scored a 10 where drinking water is more vulnerable. Mr. Sterling explained that the three small areas scored 10 were delineated in accordance with the Technical Rules which require a 100 meter radius around the wellhead to be scored a 10 and the other areas were scored based on distance from the well combined with soil type and thickness. Mr. Stratton further explained that all municipal wells were studied to determine if they were GUDI which stands for 'groundwater under the direct influence of surface water'. This looks at whether water from a nearby river or lake is infiltrating into the aquifer that is supplying the municipal well. No municipal wells in the Mississippi-Rideau region are GUDI. Based on this, the conclusion is that contaminants in the tributary would continue flowing downstream and not infiltrate into groundwater in the areas scored 10. DNAPLs (dense non-aqueous phase liquids) would sink to the bottom of the river but the area in question is within the 5-year time of travel within which all DNAPLs are assessed for potential significant threats.

A member asked what the staff's level of confidence was in the studies given that the results are based on modeling that makes certain assumptions. Mr. Stratton stated that the studies are based on the best available information and over time results can be refined as more data is gathered and more information is learned about local geology and groundwater. Members were reminded that they will be able to recommend policies to address land use activities they feel are of concern in areas where the MRSPC cannot mandate policies.

A member raised concerns about the cross-section for Almonte. The cross-section makes it look like the sewage lagoons are sitting right on top of the aquifer supplying the municipal wells. Mr. Stratton stressed that the cross-section is just a conceptual illustration, it is not an exact representation of local geological features.

A member asked if the vulnerability score where the lagoons are located could be increased from 6 to 10. Mr. Stratton explained that only the intrinsic vulnerability can be increased and it can only be bumped one level (low to medium or medium to high) where the presence of transport pathways justify an increase. In the Almonte study intrinsic vulnerability was increased from 'low' to 'medium' where the lagoons are located.

A member noted that the intrinsic vulnerability was increased in some areas in the Munster study as a result of private wells, but intrinsic vulnerability was not increased in the Richmond study. The member was concerned about the consultant's conclusion stated in the Richmond technical study which was "the potential for private wells to act as preferential conduits will at least be partially mitigated by on-going well maintenance & use of water supply ". The member felt that the use of a well did not ensure it would not act as a preferential pathway because there are many private wells that are improperly constructed and/or poorly maintained. Mr. Stratton elaborated that wells in use on a regular basis are less likely to act as conduits because there are typically in better condition than unused wells. He then explained that evaluating transport pathways for all the municipal systems was done by Dillon Consulting and it is a subjective decision based on their professional judgment. The member stated that they would look into the assumption made by the consultant further. Chair Stavinga asked if Dillon Consulting could substantiate the assumption as part of their threats study. Mr. Stratton stated that the MRSPC would have to discuss it and make a decision. The Committee did not request that any further action be taken.

A member asked why groundwater flow was different directions on either side of the Mississippi River in Almonte. Mr. Sterling explained that regional groundwater flow was west to east but local flow in Almonte is influenced by the municipal well pump.

A member flagged the issue that some old unused wells could be below ground.

A member asked when the MRSPC would have the results of the inventory of issues and significant threats by Dillon Consulting. Mr. Stratton informed members that the study would be completed by early fall.

Michel Kearney clarified that the issues and threats study being completed by Dillon will not alter or have any influence on the maps in the groundwater studies (e.g. wellhead delineations, intrinsic vulnerability or vulnerability scores). It is the next piece of the puzzle that evaluates existing land use activities on the ground within the areas identified in the groundwater studies.

A member asked if the issues and threats inventory was being based on assumptions or observations. Mr. Stratton responded that Dillon is using many data sources, aerial photography, and windshield surveys to develop the inventory. They are not doing site visits. Property owners are welcome to work with source protection staff at any stage of the source protection planning process to determine whether their land use activities are a significant threat. Staff will walk property owners through the provincial threats tables and help them make a determination. Mr. Stratton indicated that there

could be a role for site visits during the implementation stage, a role undertaken by risk management officials. Chair Stavinga also noted that one of the roles of the public open houses is to facilitate dialogue between property owners and staff. They also act as a forum for residents to share local knowledge and information with staff.

Chair Stavinga reminded members that their role is to review and evaluate studies to decide if the results are of a high enough quality to be used in public consultation. There could be a nugget of wisdom from members, municipalities or the public that could change the modeling and therefore the results. A member responded that if the MRSPC wants to be more precautionary in their approach then they should be revising study results before they are presented to the public for consultation. Mr. Stratton emphasized that the only portion of the groundwater studies that are subjective is the evaluation of transport pathways and increasing intrinsic vulnerability as a result. The rest of the groundwater methodology is prescribed in the provincial Technical Rules.

Chair Stavinga stressed that reviewing each individual study and taking it through public consultation is testing each building block of the eventual Assessment Report. If there is new knowledge learned that produces new results then that will be flagged when the Assessment Report goes through formal consultation so people are aware of any changes from an early version of a study they may have seen or reviewed.

A member reminded everyone that MOE has set out clear technical rules that studies must adhere to, regardless of whether members like the study results or not, the studies are confined to these rules. The MRSPC does have control over how they undertake consultation on the studies.

A member asked if a dense non aqueous phase liquid (DNAPLs) would sink to the bottom of the Nepean aquifer or if it would continue to sink beyond the Nepean until it reached an impermeable layer. Mr. Sterling clarified that the bottom of the Nepean aquifer is not solid and a DNAPL would continue to sink until it reached a confining layer and the speed that it moves downwards will depend on the type of material it is moving through. The member suggested the study summary be reworded to clarify that DNAPLs sink in water rather than the existing 'sink to the bottom of the aquifer'. Mr. Stratton said the wording would be changed.

A member asked why the entire 2-year time of travel for Merrickville has a vulnerability score of 10 while the 2-year time of travel for Richmond has a range of scores. Mr. Stratton indicated that the difference is due to differences in local geology. The area around Kemptville has very thin soil which resulted in 'high' intrinsic vulnerability while the area around Richmond has a layer of clay that provides good protection to the aquifer below and resulted in 'medium' intrinsic vulnerability.

Chair Stavinga stated that staff needs to be prepared for issues that have been raised by members to be raised by the public at open houses. She counseled staff to be prepared to address these issues and to discuss them openly rather than wait for questions.

Motion 5-04/09

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

- Almonte Groundwater Study;
- Munster Groundwater Study;
- Richmond - King's Park Groundwater Study; and
- Westport Groundwater Study

Carried

3.0 Community Outreach

Chair Stavinga deferred her report on the June 1 and 2 Chairs meeting until the July 9 meeting.

Motion 4-05/09

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

Carried

4.0 Other Business

None

5.0 Member Inquiries

None

6.0 Next Meeting

Date: Thursday, July 9, 2009

Time: 7:00 pm ("meet and greet" at 6pm)

Location: Britannia Water Purification Plant, Ottawa

7.0 Adjournment

The meeting was adjourned at 9.15pm.

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Janet Stavinga
Chair

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Roz Kee
Recording Secretary