



CATARAQUI SOURCE PROTECTION COMMITTEE

AGENDA FOR MEETING

Date: Thursday June 10, 2010
Time: 7:00 PM
Location: Little Cataraqui Creek Conservation Area (General Purpose Room, Outdoor Centre)
1655 Perth Road (Division Street), Kingston

1. Roll Call
2. Adoption of the Agenda
3. Declarations of Conflict of Interest
4. Approval of Previous Meeting Minutes from May 13, 2010 (attached)
5. Business Arising
6. Delegations
7. Correspondence
 - a. Letter from Max Christie, Chair, Quinte Region Source Protection Committee, and Keith Taylor, Project Manager, Source Water Protection, Quinte Source Protection Region, to Cataraqui Source Protection Area (*et al*), regarding the posting of a Draft Proposed Assessment Report, dated May 20, 2010;
 - b. Electronic mail letter from Ian R. Smith, Director, Source Protection Programs Branch, Ontario Ministry of the Environment, to Source Protection Committee Chairs, regarding Accessible Standards for Customer Service (Ontario Regulation 429/07), dated May 27, 2010.
8. Business/Reports
 - a. Update on Ongoing Technical Studies – Sean Watt, Water Resources Engineer (report attached)
 - i. Sydenham Tier 3 Water Budget
 - ii. Eastern Lake Ontario – Upper St. Lawrence River Intake Protection Zone Study (Intake Protection Zone 3)
 - iii. Joyceville and Pittsburgh Institutions Intake Protection Zone Study
 - b. Next Steps for Source Protection Plan Development
 - i. Committee Goals and Objectives for the Source Protection Plan and Beyond (discussion)

- ii. Groundwater Working Group – Alex Palilionis, Public Representative (update)
 - iii. Surface Water Working Group – Christine Woods, Source Protection Planner (update)
 - iv. Staff update – Holly Evans, Water Quality Specialist and Christine Woods, Source Protection Planner
- c. Assessment Report – Rob McRae, Project Manager (report attached; presentation)
- i. Summary of Comments Received on the Draft Assessment Report
 - ii. Looking Ahead to the Proposed Assessment Report
 - iii. Updated Assessment Report: Scope and Timing
9. Sector Updates from the Committee
10. Announcements or Inquiries
11. Motions or Notices of Motion
12. Opportunity for Questions from the Media
13. IN CAMERA Session (if required)
14. Serve-Ability: Transforming Ontario's Customer Service (training video; 30 – 45 minutes)
15. Adjournment

Please inform Donna Cellini at (613) 546-4228 ext. 248 or via e-mail at dcellini@cataraquiregion.on.ca if you will not be able to attend the meeting.

DRINKING WATER SOURCE PROTECTION

ACT FOR CLEAN WATER

QUINTE
REGION



Quinte Source Protection Region, c/o Quinte Conservation, 2061 Old Highway #2, R.R. #2, Belleville, Ontario K8N 4Z2
Phone: 613-968-3434 or 613-354-3312 Fax: 613-968-8240 www.quintesourcewater.ca

Date: May 20, 2010

To: Municipal Clerks/CAOs and Council
County Clerks/CAOs and Council
Chief of the Mohawks of the Bay of Quinte
Neighbouring Source Protection Regions/Area: Trent Conservation Coalition, Cataraqui and
Mississippi Rideau
Bay of Quinte Remedial Action Plan
Lakewide Management Plan

From: Max Christie
Chairman, Quinte Region Source Protection Committee
and
Keith Taylor
Project Manager, Source Water Protection

RE: NOTICE OF DRAFT PROPOSED ASSESSMENT REPORT

| | |
|-------------|--------------|
| C.R.C.A. | |
| Date Rec'd | May 25, 2010 |
| Original to | Rob. M. |
| Copy to | |
| File No | |

We are writing to advise you regarding the completion of the Draft Proposed Assessment Report, published on May 13, 2010 at www.quintesourcewater.ca and to invite your review and comment on the draft report. This letter and enclosure serves as a notice under Ontario Regulation 287/07.

Background

As you are aware, the Quinte Region Source Protection Committee, under the *Clean Water Act, 2006*, is working to create a plan by 2012 to protect sources of municipal drinking water in our region. The primary purpose of the plan will be to reduce or eliminate significant threats to our municipal drinking water. One of the required steps in that work is to produce an Assessment Report, a draft proposed version of which is now available for your review and comment.

The Draft Proposed Assessment Report contains the technical and scientific information that the Source Protection Committee will use to develop the Source Protection Plan. The report identifies: watershed characteristics; vulnerable areas for both groundwater and surface water sources; activities and conditions that pose a risk to the quality and quantity of drinking water sources; and, it ranks these risks as significant, moderate or low threats.

Quinte Conservation has worked with the Source Protection Committee to identify and evaluate the land uses and activities near municipal surface water intakes and groundwater wells. Similar work is occurring in other regions, through other committees and conservation authorities, all across Ontario. More

information is available at www.quintessourcewater.ca and at www.ene.gov.on.ca/en/water/cleanwater/index.php.

Opportunities to Comment

There are a number of opportunities to inspect the draft report. A DVD copy of the report will be delivered to your office shortly under separate cover. You may access it online at www.quintessourcewater.ca. A paper copy is also available for viewing (during business hours) at the Quinte Conservation Office and at nine other locations including:

- City of Belleville, 169 Front Street, Belleville
- Prince Edward County, 332 Main Street, Picton
- Municipality of Tweed, 255 Metcalf Street, Tweed
- Municipality of Centre Hastings, 11379 Hwy 62, near Ivanhoe (after May 25, 7 Furnace St., Madoc)
- Town of Deseronto, 331 Main Street, Deseronto
- Municipality of Marmora and Lake, 12 Bursthall Street, Marmora
- Town of Greater Napanee, 124 John Street, Napanee
- Madoc Township, 15651 Highway 62, near Eldorado
- Ameliasburgh Library, 809 Whitney Road, Ameliasburgh

We invite and encourage you and your staff to attend one of three public meetings where we will present key findings from the Draft Proposed Assessment Report. These open house style meetings will be held from 6:30 to 8:30 PM, with a presentation at 7:00 PM on:

- Monday, June 7 at Quinte Conservation, 2061 Old Hwy 2, near Wallbridge Loyalist Road, Belleville
- Tuesday, June 8 at the Royal Canadian Legion, 347 Main Street, Picton
- Wednesday, June 9 at the Kiwanis Centre, 137 St. Lawrence Street East, Madoc

The deadline for written comments on the draft report is Friday, June 18, 2010.

Written comments may be submitted at any of the public meetings or to:

Keith Taylor, Project Manager,
Quinte Conservation,
2061 Old Highway 2, R. R. # 2
Belleville ON K8N 4Z2
fax: 613-968-8240,
email: ktaylor@quinteconservation.ca

Comments will be compiled and considered by the Source Protection Committee as it prepares the Proposed Assessment report for submission to the Source Protection Authority. Following that submission there will be another 30 day comment period before the Proposed Assessment Report is submitted to the Ministry of the Environment in August.

Thank you for your participation in this process; it is greatly appreciated. The Quinte Region Source Protection Committee wants your input and to include your ideas so that the Source Protection Plan, when written, will be fair, effective and based on accurate information.

Sincerely,



Max Christie
Chairman,
Quinte Source Protection Committee



Keith Taylor
Project Manager,
Source Water Protection

Cc Public Health Units

Enclosure: Notice

DRINKING WATER SOURCE PROTECTION

ACT FOR CLEAN WATER



NOTICE

Comment on Draft Proposed Assessment Report

The Quinte Region Source Protection Committee published the Draft Proposed Assessment Report on May 13, 2010, an important step in developing a drinking water source protection plan for the Quinte Region. Eleven municipal drinking water systems were studied:

- City of Belleville - Main and Point Anne
- Prince Edward County - Peats Point, Village of Ameliasburgh, Town of Picton, Town of Wellington
- Municipality of Tweed - Village of Tweed
- Municipality of Centre Hastings - Village of Madoc
- Town of Deseronto
- Municipality of Marmora and Lake - Village of Deloro
- Town of Greater Napanee - Napanee Backup system

The Draft Proposed Assessment Report was prepared under the *Clean Water Act 2006*. It identifies:

- areas vulnerable to contamination around municipal drinking water sources
- water quality and quantity problems
- land uses and activities that could pose a risk to our drinking water

See the Draft Proposed Assessment Report at: www.quintesourcewater.ca or during business hours at the following:

- Quinte Conservation, 2061 Old Highway 2, Belleville
- City of Belleville, 169 Front Street, Belleville
- Prince Edward County, 332 Main Street, Picton
- Municipality of Tweed, 255 Metcalf Street, Tweed
- Municipality of Centre Hastings, 11379 Hwy 62, near Ivanhoe (after May 25, 7 Furnace St., Madoc)
- Town of Deseronto, 331 Main Street, Deseronto
- Municipality of Marmora and Lake, 12 Bursthall Street, Marmora
- Town of Greater Napanee, 124 John Street, Napanee
- Madoc Township, 15651 Highway 62, near Eldorado
- Ameliasburgh Library, 809 Whitney Road, Ameliasburgh

You are invited to attend a Public Meeting:

BELLEVILLE

Monday, June 7

6:30 to 8:30 PM

Presentation at 7:00

Quinte Conservation

2016 Old Hwy. 2, near
Wallbridge Loyalist Road

PICTON

Tuesday, June 8

6:30 to 8:30 PM

Presentation at 7:00

Royal Canadian Legion

347 Main Street

MADOC

Wednesday, June 9

6:30 to 8:30 PM

Presentation at 7:00

Kiwanis Centre

137 St. Lawrence Street E.

Please submit comments in writing by Friday, June 18, 2010 to:

Keith Taylor, Project Manager, Quinte Conservation, 2061 Old Highway 2, R. R. #2, Belleville, K8N 4Z2
fax: 613-968-8240 email: ktaylor@quinteconservation.ca

www.quintesourcewater.ca

[This email is being sent on behalf of Ian Smith, Director, Source Protection Programs Branch](#)

As you were informed at the May 4th/5th chairs meeting in Windsor, the discussion about the requirement to undertake accessibility training was to be followed up with a formal letter, advising each of you of the committees' requirements in detail. You will be sent an original letter in the mail that is individually addressed to each SPC Chair.

Please find the text of this letter below.

May 27, 2010

Letter to Ministry Service Providers: Source Protection Committee Chairs

cc : Source Protection Project Managers, Lead Source Protection Authorities

The Accessible Standards for Customer Service, Ontario Regulation 429/07, outlining the new accessibility standards for customer service under the *Accessibility for Ontarians with Disabilities Act (AODA), 2005* came into force on January 1, 2008.

This new regulation requires that the Ontario Public Service and its service providers, as well as the broader public sector, provide accessible customer service to persons with disabilities by January 1, 2010. All other organizations in Ontario with one or more employees will need to comply with the requirements of the regulation by January 1, 2012.

The Ministry of the Environment (MOE) is committed to delivering high quality services that are accessible to all Ontarians. Providing accessible customer service is about providing excellent service to our customers and clients with disabilities. While we have a legal obligation to comply with the legislation and regulation, our key objective is to be more responsive to and better serve all Ontarians.

As you are an organization that delivers services on behalf of MOE and conducts public consultations in the course of delivering those services, I am writing to you to confirm that Source Protection Committees established under the *Clean Water Act, 2006* have obligations under the regulation and to inform you of resources currently available to assist you in meeting these obligations. These resources are aimed at increasing awareness and understanding of how to communicate more effectively with persons with disabilities.

Specifically, board members and committee members are required to complete training on the specific topics stated under the regulation (see Appendix 1), and maintain records confirming the dates that training was undertaken. Completion of the e-course "**Serve-Ability: Transforming Ontario's Customer Service**", which is available on the Accessibility Directorate of Ontario's AccessON Internet site and takes approximately 45 minutes to complete, will fulfill this training requirement (see Appendix 1 for this and other training resources). Given that source water protection Project Managers are directly involved in managing the committee's public consultation activities, the Ministry of Natural Resources has requested that they also complete the accessibility training by June 30th.

To meet the second requirement involving the maintenance of records, please develop a training log identifying who has been trained, the date of the training and the content of the training (i.e., Serve-Ability e-training course). Please retain this training log for your committee's files and be prepared to provide it to MOE upon request.

In order to fulfill these accessibility training requirements, board members and committee members are asked to complete the training and training log by June 30, 2010.

This letter is intended to inform you of the ministry's requirement that service providers be trained. I also want to make you aware of the OPS Accessible Customer Service Policy and tips on planning accessible meetings (see Appendix 1).

If you provide services on behalf of other OPS ministries, you may receive a letter similar to this one from them. The content of each letter will be specific to the relationship that you have with each ministry. You will need to meet the necessary compliance requirements as set out and determined by each ministry.

Thank you for your efforts in working with us to provide more accessible services to the public we serve and move us closer to becoming a barrier-free Ontario.

If you have any questions, please contact Paul Heeney at 416 326-5564 or by email at paul.heeney@ontario.ca.

Sincerely,

ORIGINAL SIGNED BY

Ian Smith
Director, Source Protection Programs Branch



CATARAQUI REGION CONSERVATION AUTHORITY

1641 Perth Road, P.O. Box 160 Glenburnie, Ontario K0H 1S0

Phone: (613) 546-4228 Fax: (613) 547-6474

E-mail: crca@cataraquiregion.on.ca Web Site: www.cataraquiregion.on.ca

REPORT

To: Cataraqui Source Protection Committee

File: SPP 4-0,6-1-2,6-1-4,7

From: Sean Watt, P.Eng.
Water Resources Engineer

Date: June 3, 2010

**RE: SOURCE PROTECTION TECHNICAL STUDY UPDATES
ELO/USLR IPZ-3 MODELING
SYDENHAM TIER 3 WATER BUDGET
JOYCEVILLE/PITTSBURGH INSTITUTION IPZ STUDY**

This report provides updates to the Cataraqui Source Protection Committee on the three above noted ongoing technical studies. These studies are expected to be completed over the summer, and are expected to be included in the updated Assessment Report prepared in the fall.

Eastern Lake Ontario/Upper St. Lawrence River Intake Protection Zone Study - IPZ-3 Modeling

The researchers at Queen's University have provided updated time of concentration charts, as well as updated concentration isoline charts for the potential contaminant release sites, as previously presented to the committee. Sample charts for the Lennox Generating Station and the mouth of Millhaven Creek are attached to this report.

Some sites have potential contaminant concentrations that are low enough that they will not be considered significant drinking water threats, while a few have potential contaminant concentrations high enough to be further explored as possible significant threats. Further work to determine whether contaminants might be released from these sites is needed. This work will be undertaken by CRCA staff.

The updated information will be circulated to the Technical Advisory Group (TAG) of municipal representatives for their consideration, and will then be finalized and presented for receipt by the Source Protection Committee, to be included in the updated Assessment Report. The IPZ-3 delineation, as presented to the Source Protection Committee and included in the Draft Assessment Report (April 2010), is not expected to change.

Sydenham Tier 3 Water Budget

The second version of the draft report of the Sydenham Tier 3 Water Budget was circulated to the Peer Review team (last week of May). They have 2 weeks to provide comments on the report. The draft report has also been circulated to officials and staff at the Township of South Frontenac. This new version has captured all the comments provided by the PR team, and it is expected that this version will be approved by MNR.

The report should be approved well in advance of the updated Assessment Report timelines.

As expected, the draft Tier 3 report concluded that there is enough water available in Sydenham Lake to meet the requirements of the existing drinking water system.

The Tier 1 and Tier 2 reports are also expected to be officially approved soon. Some additional details of the Peer Review Record, and changes to the significant groundwater recharge area portions, need to be circulated to the MNR.

Joyceville/Pittsburgh Institution Intake Protection Zone Study

This study has been ongoing since last fall, and three draft memos have been prepared by XCG Consultants Ltd. and circulated to the associated TAG for comment. A second draft of the memos is almost ready for recirculation to the TAG, and a meeting of the TAG is planned for the next few weeks.

The initial study results include draft IPZ-1/2/3 delineations and vulnerability, along with the identification of potential threats and issues. The IPZ-2 extends upstream from the River Styx approximately half way to the Brewers Mills locks, and the IPZ-3 includes the entire upstream extent of the Cataraqui River, as well as Big Rideau Lake in the Mississippi-Rideau Source Protection Region, as per the provincial Technical Rules. The draft memos have been sent to Mississippi-Rideau staff for their information.

A number of parameters have been identified as drinking water issues for the intake, as noted:

- total coliforms
- *E.coli*
- aluminum
- colour
- dissolved organic carbon
- hardness
- iron
- manganese
- pH
- sodium
- temperature, and
- turbidity.

Most of these issues are naturally occurring, and those that are anthropogenic have been identified as potentially coming from a variety of sources, including:

- agriculture (crops & livestock)
- septics
- fertilizer application
- road salt application and storage, and


- snow storage.

The enumeration of drinking water threats has identified 13 parcels, and 69 potential significant drinking water threats within the IPZ.

The inclusion of the Joyceville/Pittsburgh Institution findings in an updated Assessment Report will depend on the interest of Correctional Services Canada, and the Ministry of Environment, to include the system under the Ontario *Clean Water Act, 2006*. An amendment to the Terms of Reference (by the Source Protection Committee and MOE) would also be required.

Additional details/updates on the studies are expected to be presented at the July committee meeting. In the interim, if you have any questions about any of the studies, please let me know.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Sean Watt', with a long horizontal flourish extending to the right.

Sean Watt, P.Eng.

attachments

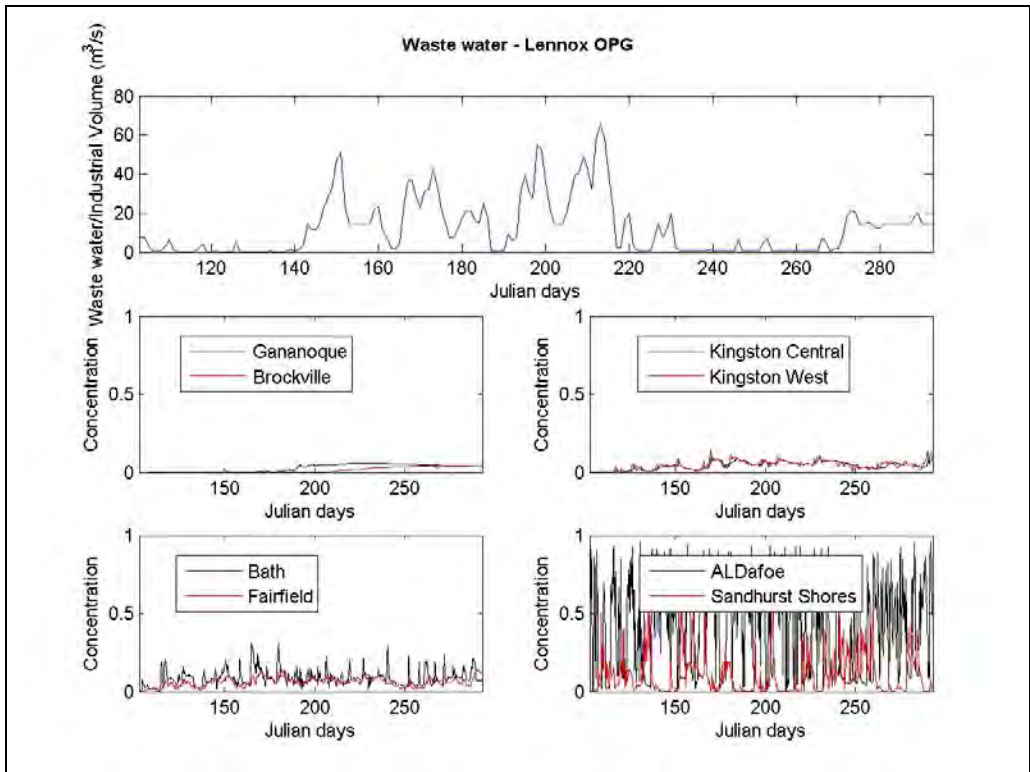


Figure 1a: Time Series Chart - Lennox Power Station discharge

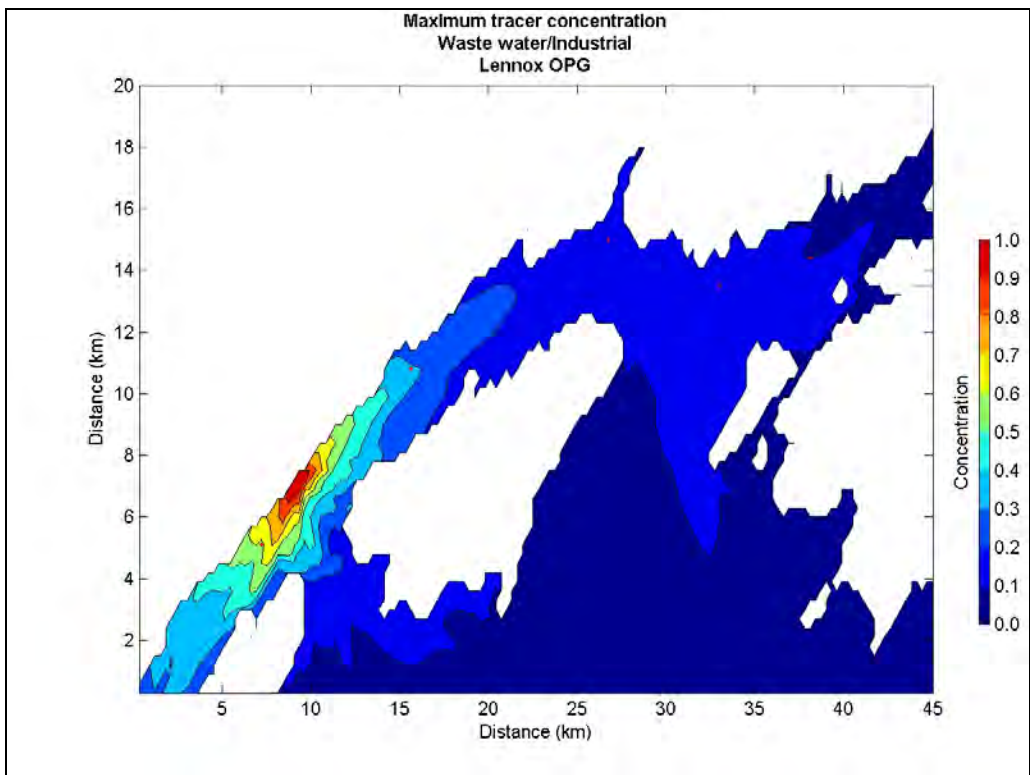


Figure 1b: Concentration Isoline Map - Lennox Power Station discharge

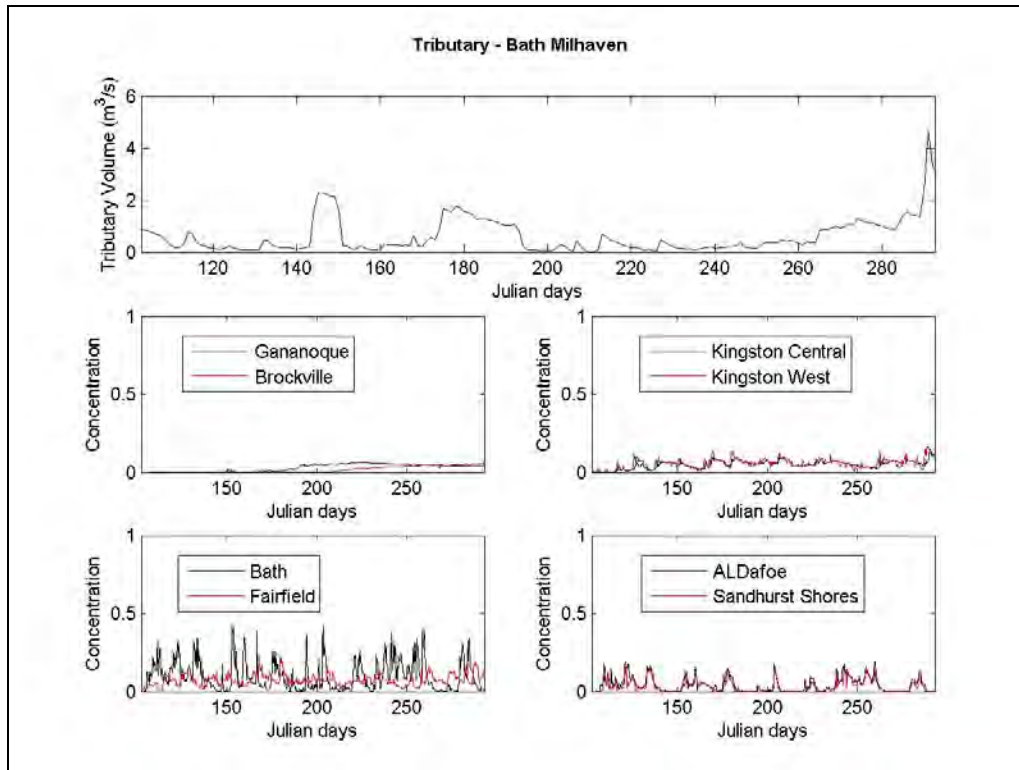


Figure 2a: Time Series Chart - Millhaven Creek mouth

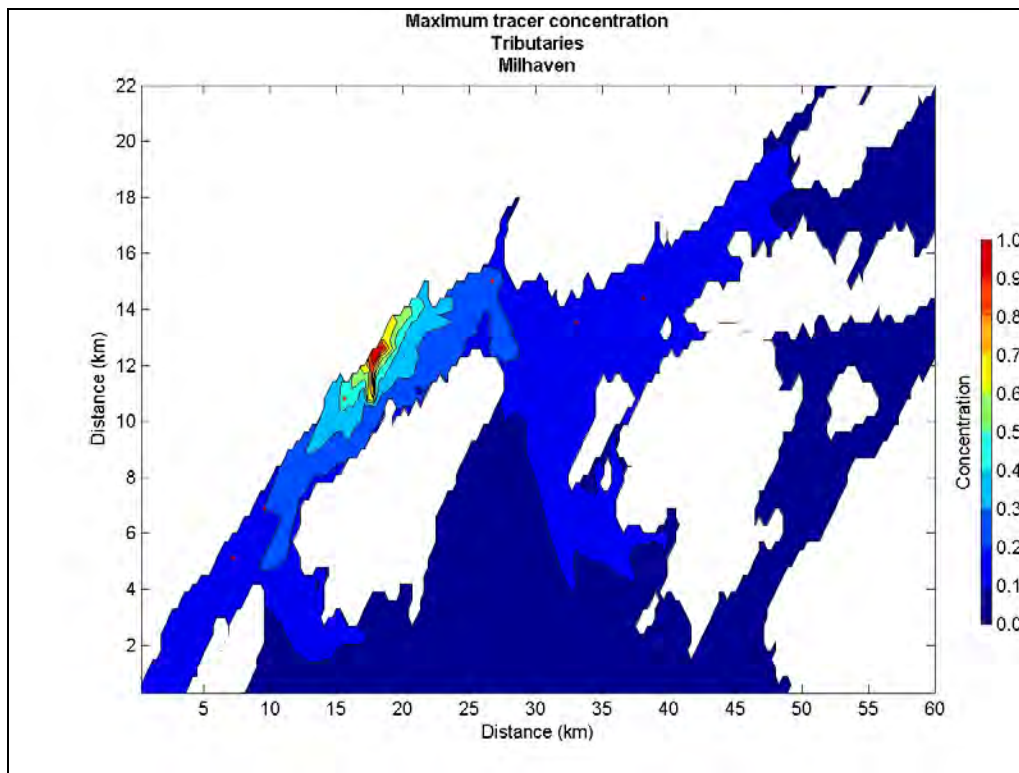


Figure 2b: Concentration Isoline Map - Millhaven Creek mouth

THE CATARAQUI SOURCE PROTECTION COMMITTEE
REPORT

To: Cataraqui Source Protection Committee

Files: SPP 4-0, 6

From: Rob McRae, Project Manager, Source Water Protection

Date: June 3, 2010

**RE: (1) INITIAL ASSESSMENT REPORT – 2010
(2) UPDATED ASSESSMENT REPORT – 2011**

This staff report provides information for the Cataraqui Source Protection Committee (“SP Committee”) regarding the initial assessment report in 2010, including the recent consultation on the ‘draft’ version and progress towards publishing a ‘proposed’ version this summer. It also seeks direction from the SP Committee on a timeline for an updated assessment report in 2011.

Background

The revised date for submitting an initial assessment report for the Cataraqui Source Protection Area to the Ontario Ministry of the Environment (MOE) is October 12, 2010. Resolution CSPC 15-10 directs CRCA staff to work with the Assessment Report Subcommittee toward the publication of a ‘proposed’ version of the document in July 2010.

We also need to begin preparations for an updated assessment report that will record some other technical findings during this cycle of source protection planning. Many source protection areas and regions across Ontario are planning to release updated reports next year.

(1) Discussion: Initial Assessment Report in 2010

The ‘draft’ version of the initial assessment report was posted on Thursday April 15th for 35 days of public review. All of the related requirements in Ontario Regulation 287/07 were either met or surpassed. The sections below discuss the recent public open houses, the comments received, and the publication of a ‘proposed’ version this summer.

Public Open Houses on the Draft Version

Three public open houses were held to share the findings and solicit feedback on the draft document. The table below provides an overview of the participation:

| Date | Location | # of Participants ¹ | Notes |
|-------------------------------|------------|--------------------------------|-------------------------------|
| Thursday May 6 th | Brockville | 7 | |
| Thursday May 13 th | Kingston | 10 | Prior to SP Committee meeting |
| Monday May 17 th | Napanee | 14 | Co-hosted with the Quinte |
| Total | | 31 | |

1. Excludes SP Committee members and conservation authority staff.

This relatively low level of participation is similar to our experience in May 2008, when a total of 23 participants attended public open houses at Brockville, Kingston, and Bath regarding the draft Terms of Reference. However,

as discussed by the SP Committee, an open and transparent planning process requires that events be held in proximity to the communities that are the subject of the plan. Further, a positive aspect of the recent events was that it created a good forum in which to discuss the findings with municipal officials and staff.

Summary of Comments Received on the Draft Version

The comment period closed on Thursday May 20th. Written comments were received from:

- Conservation Ontario;
- City of Kingston;
- Loyalist Township;
- Ontario Ministry of the Environment; and
- Chair John C. Williamson

A copy of each comment letter is attached to this report for your information (see attachments 1(a) through (e)). The comments fall into three general categories:

- (1) Requests for additional details and/or clarity;
- (2) Required changes and recommendations resulting from interpretations of the Technical Rules: Assessment Report (MOE, 2009) by provincial staff; and
- (3) Recommendations based on local (municipal) knowledge.

The majority of the comments are relatively minor in nature, will improve the document, and can be addressed within the time available. Our challenge will be to maintain the accessibility of the document when adding details about methods, assumptions, and findings.

The most substantial comment was made by the MOE; it relates to our delineation of highly vulnerable aquifers (see Groundwater Comments # 4 and # 5 in attachment 1(d)). The Conservation Authority is discussing this topic with the neighbouring source protection regions (since it is of common interest across eastern Ontario) and we have re-engaged Dillon Consulting Ltd. to assist in resolving this matter. I will provide more information on this aspect at the June meeting.

Looking Ahead to the Proposed Version

Staff have compiled a list of 125 comments which require attention in the ‘proposed’ version. We are working to prepare additional/revised text, maps, and tables to address the comments, and are consulting with the MOE on some of their comments. This process will be discussed in detail by the Assessment Report Subcommittee on Monday June 14th. Draft materials will be provided for review by the full SP Committee in advance of the July 8th meeting.

The next step in the assessment phase is to submit the ‘proposed’ version to the Cataraqui Source Protection Authority. Section 16 of the Ontario *Clean Water Act, 2006* also requires that this version be posted on the Internet for 30 days, with an invitation to submit comments to the SP Authority. Copies are to be circulated to each municipality.

This is the timeline for the ‘proposed’ version that was approved through Resolution CSPC 15-10:

| Date | Meeting / Milestone | Activity |
|--------------------------------------|------------------------------------|--|
| Monday June 14 th | AR Subcommittee Meeting | Detailed review of changes |
| Wednesday June 30 th | SP Committee agenda package | Circulation of proposed version |
| Thursday July 8 th | SP Committee meeting | Approval of proposed version? |
| Wednesday July 21 st | Potential posting day | |
| Friday August 20 th | Potential 30-day comment due date | |
| Thursday September 9 th | SP Committee meeting | Consideration of comments |
| Wednesday September 22 nd | SP Authority meeting | Receipt of comments, approval of proposed version? |
| Tuesday October 12 th | Due date for submission to the MOE | |

Although changes are needed in all three volumes of the document, staff propose to print a minimal number of copies (say 10) and instead provide digital (DVD) copies to the SP Authority members, SP Committee members, municipalities, and others.

(2) Discussion: Updated Assessment Report in 2011

Some of our technical findings were not available in time for the initial report in 2010. Staff therefore recommend that they be included in an updated assessment report, to be published in 2011. The sections below discuss the anticipated scope and proposed timing of the updated document.

Scope of the Updated Assessment Report

The updated version might include the following content:

- (1) Sydenham Tier 3 Water Budget;
- (2) Joyceville and Pittsburgh Institutions Intake Protection Zone Study (pending the concurrence of Correctional Services Canada and the MOE that this drinking water system should be included in the scope of work under the *Act* (i.e. the Terms of Reference);
- (3) Drinking water threats:
 - a. Conditions (specific identification);
 - b. Conditioning salt activities;
 - c. Corridor-based activities; and
 - d. Great Lakes event-based activities (i.e. intake protection zone 3); and
- (4) Other minor improvements that are identified over the coming months.

Inclusion of content related to conditioning salts and corridor-based activities will depend on those non-prescribed drinking water threats being accepted by the MOE. Responses from the Ministry to the related SP Committee requests are anticipated shortly.

The updated document would likely not include any content related to issue contributing areas (and related drinking water threats), since work in support of the findings was deemed by the MOE to be an ineligible expense for the 2010/11 fiscal year. This was due to funding constraints across the source protection initiative.

Timing of the Updated Assessment Report

The MOE has indicated that June 2011 is the last month in which an updated report can be submitted in this cycle of source protection planning. The process requirements for an updated report are laid out in Section 18 of Ontario Regulation 287/07; only one 'round' of consultation is specified. Staff have prepared a timeline (attached, summarized below) that maps out how a report can be prepared to meet the June 2011 due date and the regulation.

| Milestone | Summer 2010 | Fall 2010 | Winter 2011 | Spring 2011 |
|---|----------------|--------------|----------------|----------------|
| Conduct technical research | √ | √ | | |
| Receive findings | | √ | | |
| Post draft version and consult | | | √ | |
| Review comments, prepare proposed version | | | √ | √ |
| Submit proposed version to SP Authority | | | | √ |
| Submit proposed to MOE (SP Authority) | | | | √ |

Recommendation

WHEREAS the forthcoming initial assessment report for the Cataraqui Source Protection Area does not include all of the technical findings that will be available for consideration in the initial source protection plan;

THEREFORE BE IT RESOLVED THAT the Cataraqui Source Protection Committee shall publish an updated assessment report for the Cataraqui Source Protection Area in 2011, in accordance with the timeline set out in the report of the Project Manager (dated June 3, 2010).

I look forward to discussing this topic with you at the June meeting.

Respectfully submitted,

(original signed by)

Rob McRae MCIP, RPP
Project Manager, Source Water Protection

W/attachments:

- 1(a) Conservation Ontario comments (dated May 13, 2010)
- 1(b) City of Kingston comments (dated May 20, 2010)
- 1(c) Loyalist Township comments (dated May 20, 2010)
- 1(d) Ontario Ministry of the Environment comments (dated May 13, 2010)
- 1(e) Chair John C. Williamson comments (dated May 20, 2010)
- 2 Proposed Timeline for an Updated Assessment Report (2011)(dated June 3, 2010)



May 13, 2010

Source Protection Project Manager
Cataraqui Source Protection Region
P.O. Box 160
Glenburnie, Ontario
K0H 1S0, Canada

Dear Rob McRae,

Thank-you for allowing me to review your assessment report. Drafting of the proposed report is a huge accomplishment that required a great deal of work. I would like you to consider the following information while you are preparing to release your proposed assessment report. The review was completed from a 'high-level' and I did not look at all the information in fine detail. These comments have been made based on my understanding of the MOE's regulations and their guidance, including the assessment report checklist. Following these requirements should improve the likelihood that your report will be approved by MOE.

Main Comments:

- **WATER BUDGET:** The report says a stress ID was not done for Millar Manor since the "required data is not available". I am not sure what this means and why it was not done. More information should explain this point.
- **VULNERABILITY ASSESSMENT:** The report indicates you have asked MOE for approval of a method used. You should check with MOE to see if you can use this in the report without their approval.
- **DELINEATION OF VULNERABLE AREAS: IPZ:** One IPZ map seems to show an IPZ-3 'A and B'. I am not sure how or why the IPZ-3 was divided into two sections. You may need to include information on your method used and whether MOE approved this if it differs from the rules.
- **MANAGED LANDS:** the managed lands maps may need to be revised. They are required for vulnerable areas, but it looks like they were completed for the entire area. Based on the information in the report it is hard to tell if they were completed correctly or not. More explanation of your methods may be required.

P.O. Box 11, 120 Bayview Parkway Newmarket Ontario L3Y 4W3
Tel: (905) 895-0716 Fax: (905) 895-0751 Email: info@conservationontario.ca

- **THREATS:** I am not sure the definition of “would be” threats is correct. Although the report references an example of a “would be” that is correct, it also speaks to ones that may or may not be permitted under current zoning. I believe it has more to do with existing infrastructure rather than zoning. You may want to check with MOE on your method used.
- **ENUMERATION OF THREATS:** The Enumeration of Threats is shown in an appendix and the table is difficult to read. The table is confusing and refers to parcel numbers and PDWT (Provincial Drinking Water Threat?) when I think it should only have one category (likely number of threats). There also appear to be errors in reference numbers. This table should be re-done, put in the main body of the document, and utilize the provincial summary tables or other method in the threats technical bulletin so that it is easier to understand.
- **DATA GAPS:** the comments made in the data gaps sections may not be appropriate to MOE and are more likely suggestions for future work, which is not required in the AR. For example the report says radon testing could be completed to improve discharge data. Although it does say this is “research outside OCWA” it really should not be here at all. It also made recommendations to improve MOE’s water well system (eg. development of guidelines). The Cana and Millar Manor supplies require “further research outside of source protection”.MOE has expressed concerns to the PMs about these types of comments. They can be worded more appropriately so that they are more comfortable with them.

Smaller Comments:

- The report refers to some information contained in other reports that should really be included in the AR as well (eg. map for assessment of how land cover across the area affects groundwater and surface water).
- Threats that are likely to occur in a vulnerable area (out of the 21) are listed for each supply. A better way may be to list all 21 at the start.
- There is not enough detail in AR on methods, assumptions, rationale for conclusions reached

Please do not hesitate to contact me for further clarification and assistance with these points.

Sincerely,

Scott Lister
Technical Liaison

cc. Charley Worte, Source Protection Manager



where history and innovation thrive

City of Kingston
216 Ontario Street
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Canada K7L 2Z3

Website: www.cityofkingston.ca
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D03-004-2010

Via Fax 613-547-6474

May 20, 2010

Rob McRae, MCIP, RPP
Project Manager, Source Water Protection
c/o Cataraqui Region Conservation Authority
1641 Perth Road
P.O. Box 160
Glenburnie, ON KOH 1S0

| | |
|----------------|--------------|
| C.R.C.A. | |
| Date Rec'd | May 20, 2010 |
| Original Rec'd | Rep. M. |
| Copy for | |
| File No | SPP 6 |

RE: Comments regarding the Draft Assessment Report dated April 2010

Dear Rob:

We wish to thank the Cataraqui Source Protection Committee for the opportunity to comment on the Draft Assessment Report, dated April 2010. Please note that our review of the document was very high level and pertains mainly to those items that impact the City. As a result of our technical circulation to City staff, the Planning and Development Department offers the following comments on the Draft Source Protection Plan.

Mapping

As a general comment, we note that on some of the maps that Glenburnie, Elginburg and Westbrook are in the legend as Towns. We suggest that the legend be changed to read Towns/Villages/Hamlets in order to eliminate any confusion. We also suggest that the Town symbol at the intersection of Sydenham Road and Princess Street and entitled Kingston be removed from the mapping.

The legend on Map 2-10, under Water Supply Wells has a category - Municipal Water Supply which implies municipal treated water. There is only one treated water system in the rural area that we are aware of. On the same map, there are many symbols representing Municipal Water Supply, some of which are located on properties not owned by the City. We also suggest that the locations of the symbols entitled Public Water Supply be verified.

The Urban Boundary and the limits of the areas of settlement for the City are incorrect on Map 2-17. The Urban Boundary is available in the City's new Official Plan on the city website.

We have a concern about Map 5-1 which relates to the location and status of wells with High Vulnerability. A number of these wells are located within areas of the City where municipal water services exist such as in the heart of the City, in Westbrook, Sunnyside and the parts of the St. Lawrence Community.

Overall, we suggest a consolidation of mapping to reduce duplication and ultimately the number of maps associated with the Assessment Report. For instance Maps 6-17 to 6-21 for the Kingston Central intake all have different titles but the Intake Protection Zone Vulnerability foot prints are identical for each threat. We have also noticed this similar situation for Maps 6-24 to 6-28 for the Point Pleasant intake, as well as duplication for a number of other intakes in other municipalities.

Given the proximity of the two Kingston intakes and the Fairfield intake, it would be helpful to have more of a context for the vulnerability scoring (IPZ 1 and IPZ 2) by placing them all on one map. As well, this would assist in noting any overlaps of the areas of vulnerability. Perhaps a map could be prepared showing all of the intakes IPZ-1 and IPZ-2 zones for the all intakes into the St. Lawrence River and Lake Ontario.

Issues

We have a concern regarding the numbers used for persons served by the Kingston Central Plant and the Point Pleasant Plant and have spoken with Utilities Kingston, as we understand the numbers originated from them. As you may be aware, the number of municipal connections (billed customers) was used as a measure of number of persons (for example 80,000 are serviced by the Kingston Central Plant and 44,000 are serviced by the Point Pleasant Plant). We understand that Kevin Riley of Utilities Kingston will be providing you with updated data.

We suggest that there should be a discussion of the Commercial, Industrial and Institutional users served by the identified water intake plants. Using data limited to "persons" does not provide a full picture of the customer base. We believe that each of Commercial, Industrial and Institutional users also rely on the safe water supply.

With regards to well record information from the Ministry of the Environment, it would provide context if there could be indication of the time frame of the well records. For example, some of the wells within the City are no longer in use. They were replaced by municipal water systems in the 1970's and 1980's. We also suggest a clarification that the wells may no longer be in use and which wells have been properly closed.

Some of the calculations of the water budget used the number of wells and used an estimated number of persons per household to calculate water usage. We question if that calculation included or excluded wells in the urban area that are not currently used (replaced by municipal systems)? As well, the number of wells used in the water budget on page 40 is different by about 5,000 wells than the description used in the ISI protocol on page 64, some clarification would be beneficial.

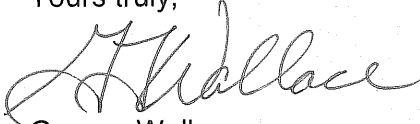
There are a number of Highway No. 401 service centres/major facilities in the study area that rely on ground water and two of these are in the City of Kingston. We believe that it is important to discuss these in the report.

There is a municipal treatment plant identified at Joyceville drawing water from Colonel By Lake. This is neither the Cana Treatment Plant nor the Federal Treatment Plant at the Joyceville-Pittsburgh Institution. We request that the nature of this plant be clarified.

We note from the text that the former Pittsburgh Official Plan was used in the development of parts of the Source Water Assessment Report. We suggest that the new City Official Plan be used. It is available on the city website.

We hope that these comments are of assistance as you move forward with the assessment report. If you have any questions on the above comments or would like to meet to discuss, please contact Cherie Mills, Manager, Policy Planning or Wendy Carman, Senior Policy Planner.

Yours truly,



George Wallace,
Director of Planning & Development

- c.c. Gerard Hunt, Chief Administrative Officer
Cynthia Beach, Commissioner, Sustainability & Growth (City Hall)
Hal Linscott, Director & City Solicitor (City Hall)
Jim Keech, President & CEO, Utilities Kingston
Jim Miller, Manager, Utilities Technical Services
Kevin Riley, Manager, Treatment Group, Utilities Kingston
Mark van Buren, Director, Engineering, Public Works & Emergency Services
Kim Brown, Infrastructure Engineer
Paul MacLatchy, Director, Strategy, Environment & Communications (BWB 2)
Brodie Richmond, Environmental Geoscientist, Strategy, Environment & Communications
Desiree Kennedy, Director, Financial Services (BWB 4)
Damon Wells, Director, Public Works (610 Montreal St.)
John Giles, Manager, Solid Waste, Public Works (196 Lappan's Lane)
John Cross, Manager, Fire & Emergency Planning (500 O'Connor Dr.)
Cherie Mills, Manager, Policy Planning
Wendy Carman, Senior Policy Planner



May 20, 2010

File: E22 – Source Water Protection –
General Correspondence

Rob McRae MCIP, RPP
Project Manager, Source Water Protection
c/o Cataraqui Region Conservation Authority
1641 Perth Road P.O. Box 160
Glenburnie, Ontario K0H 1S0

Dear Mr. McRae,

**Re: Loyalist Township Comments on the Draft Assessment Report:
Cataraqui Source Protection Area**

At the Thirteenth Session of Loyalist Township Council in 2010, the following resolution was passed:

2010.13.15 - Cataraqui SPC - Request for Comments - Draft Assessment Report Moved by Deputy Reeve Lowry and seconded by Councillor R. Bresee that the Project Coordinator's report, May 4, 2010 re: Cataraqui SPC - Request for Comments - Draft Assessment Report be received and that the following be adopted:

- 1. That Loyalist Township Council congratulates the Cataraqui Source Protection Committee on the completion of a thorough and proficient Draft Assessment Report.*
- 2. That Loyalist Township Council authorizes staff to comment on the proposed Terms of Reference based on the Project Coordinator's report dated May 4, 2010.*

Motion carried.

Loyalist Township staff has reviewed the subject document and offer the following comments:

- On Map 2-7:
 - Surface water quality in the areas of Amherstview and Amherst Island appear to have been assigned an "F", however the text of the report specifies that there was insufficient information to complete the evaluation of water quality in these areas. Please review.
- Map 2-9:
 - Should Potter's Dam be included as a Municipal Water Control Structure since it no longer acts in this capacity?
- Map 2-10:
 - Blue points signifying municipal drinking water supplies relying on groundwater should be removed for the Harewood and Brooklands

- systems because these areas are now supplied by the Fairfield Water Treatment Plant.
- Would the SPC be able to supply a listing of the public and municipal drinking water supplies on this map to Loyalist Township? Township staff would like to confirm that the municipal systems identified are still in operation and feel that there may be some oddities included for both municipal and public systems.
- Page 27:
 - Loyalist Township population is not between 21,000 and 22,000 persons, it is 15,062 (Census Canada, 2006).
- Map 2-17:
 - The Areas of Settlement identified do not seem to reflect what is on the ground. Could the CSPC provide more information to Township staff as to how this map was put together?
 - The delineation of the Urban Growth Areas appears to be reasonable.
- Map 2-20:
 - The livestock density in the Amherstview area is illustrated to be "> 1.0 (significant)". This seems strange and may require further investigation.
- Page 31:
 - If a protocol for spill emergency response is to be developed during source protection planning, it should be communicated to municipalities as soon as possible after it is finalized to be considered during risk assessment for Drinking Water Systems.
 - This protocol should consider who will contact municipalities if there is a spill and could suggest that the MOE strengthen its communication protocol.
- Page 37:
 - Staff does not feel that the calculation used to determine annual withdrawal for the Conceptual Water Budget is realistic. The PTTW allows the municipality to withdraw the maximum daily amount each of the 365 days of the year. If a change is being made from this number to account for what is currently being taken over the period of one year (i.e. half of the maximum withdrawal), then the actual average daily raw flows for each WTP should be used, rather than a calculation based on allowable PTTW values.
 - Does the Conceptual Water Budget take into account that water used to supply the communities of Amherstview and Odessa is taken from Lake Ontario, while the effluent from the sewage treatment plant that services these communities discharges into the Bayview Bog (inland surface water)?
- Page 38:
 - "This supplies... Village of Bath, Loyalist Township..." should read "This supplies... Loyalist Township..." (i.e. please remove "Village of Bath") since the Village of Bath is now part of Loyalist Township.
- Appendix E-2, Table 1 and 11

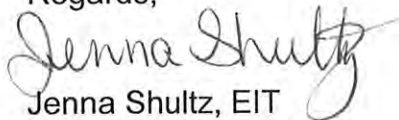
- Organic Nitrogen is listed as a substance recommended as a drinking water issue in Table 1, however Table 11 does not show any exceedance of Organic Nitrogen counts. Please clarify.
 - Township staff has completed a History of Sewage Discharges via Storm Sewer System for Bath and Amherstview (attached) for CSPC information.
- Page 48:
 - The report states that further research is warranted in subwatersheds with significant and moderate stress. Is there any plan by the CRCA to complete this research?
- Page 52:
 - The report discusses further consideration of the “transportation of fuels, organic solvents, DNAPL, and pesticides along highways, roads, railways and navigation channels within vulnerable areas”. Loyalist Township staff would like to be kept informed of developments with respect to the Ministry’s approval of this subject.
- Page 53:
 - The report states that “the Act requires local communities to remove significant threats from being a problem, and to prevent moderate ones from becoming significant”. Loyalist Township staff would like to be kept informed of developments with respect to possible requirements of the municipality to achieve this requirement.
- Appendix E-3:
 - Could the CSPC provide Loyalist Township staff with further information as to how the preferred storm sewer outfalls for sampling were determined?
 - Some of the results that would be found by sampling at the Bath STP outfall may already be available from the municipality.
 - The CSPC identified the potential to sample upstream and downstream of a land use on Bath Creek. If possible, the Township would like further information on the land use that has been identified.
 - In conjunction with desktop research and a windshield survey, discussions with municipal staff familiar with land uses in the IPZs may be beneficial to the CSPC.
- Appendix G, Table 9 and Table 10:
 - The IPZ-2 vulnerability scores for the Bath WTP and Fairfield WTP are listed as 5.6. Should this value be 6.3?
- Page 73:
 - The report notes what can be done for further groundwater modeling. Are there any actual plans to complete further groundwater studies? Is there a need for further studies when a couple of studies have already been completed in the area?
- Page 107:
 - Why are the average annual and monthly volumes “n/a” for the Bath WTP? These values should be available to the CSPC and an

average annual value of 620,400 m³ is given on page 38 of the report.

- The maximum day value for the Bath WTP PTTW is 7,515 m³.
- Page 110:
 - “Map 5-58” should read “Map 6-58”.
- Page 130:
 - “In addition to the threats associated with individual parcels of land, road salt application and sewer networks...”
 - Please specify storm sewers, sanitary sewers, or both.
- Maps 6-31 – 6-36 and Maps 6-37 -6-43:
 - Will there be on-going review and updating of the contributing areas to the IPZs when new development occurs?
 - Some portions of Amherstview and Bath that have recently been developed are not captured under the illustration of IPZ-2 for the Fairfield WTP and Bath WTP.
- Map 6-64:
 - Township staff is concerned about the large area covered by the Picton IPZ-3. Could the CSPC provide further information as to what the impacts of this IPZ may be to neighbouring municipalities in which the IPZ is located?
 - Township staff is also curious about future source protection planning activities for the Bay of Quinte Area of Concern.

Loyalist Township welcomes the opportunity for further input to Cataraqui Source Water Protection Planning as required. Please do not hesitate to contact the undersigned at 613-386-7351 ext. 151 or jshultz@loyalist.ca should you have any questions.

Regards,



Jenna Shultz, EIT
Project Coordinator
JS/js

cc. Diane Pearce, CAO
Murray Beckel, MCIP, RPP, Planner/Chief Building Official
David C. Thompson, P.Eng., Director of Engineering Services

SPPB General Comments and Observations
Cataraqui Draft AR

| Draft AR | Comments | Legislative Requirement/ Recommendation/ Suggestion ¹ |
|-------------------------|--|--|
| General Comments | <ol style="list-style-type: none"> 1. The drinking water systems in the AR should be the same as the table in the approved ToR. The AR should keep the names of the drinking water systems consistent throughout the report. Eg. Approved ToR (Appendix C-1) lists A.L Dafoe WTP; the AR Table 3.1 refers to this system as Napanee. 2. Add a table that presents all the DWS covered under source protection earlier on in the report than in Table 3.1 (page 38). 3. Limitations are discussed briefly at the beginning of the report as a general statement of the entire report. Ensure that the limitations are discussed for each section of the report (watershed characterization, water budget, etc.). The technical rules require that you provide limitations specific to the methods of analysis and sources of data. 4. The establishment of a municipal residential water supply and the consultation are currently underway for the system in the community of Marysville system (on Wolfe Island) – page 10. The approved ToR will require an amendment in the future, following the approval of the AR. Provide clarification in the text of the AR as to why this new system was not included in this AR. E.g. this report is based on the systems presented in the approved ToR that were online as of January 1, 2009. Future reports will include source protection work relating to this new system. 5. There appears to be duplication of information in Chapter 2 and 5. Consider removing repeated information. 6. Various pages make recommendations with respect to the source protection plan. The AR can not presuppose the outcome of policy development – remove such content from the AR. <p>Tone/Clarification:</p> <ol style="list-style-type: none"> 7. Page 11 states that the following chapter will discuss water budget implications. Consider rewording this as it is not clear what is meant by implications. 8. Page 44 & 48 (conclusions) identify that further water budget work is required for the Cana Subdivision and Miller Manor Apartments, but that this work is outside the scope of the CWA. The assessment report is not an appropriate place to make recommendation on work necessary outside the Clean Water Act. It should be clear that under the Clean Water Act, no additional work is required. <p>Consultation:</p> <ol style="list-style-type: none"> 9. Appendix D contains the work plan for the Tier 3 WB, which is a requirement when a tier 3 water budget can not be completed as part of | <ol style="list-style-type: none"> 1. Legislative Requirement 2. Recommendation 3. Legislative Requirement 4. Legislative Requirement 5. Suggestion 6. Legislative Requirement 7. Recommendation 8. Recommendation |

¹ Definitions:

- **Legislative requirement** means it is a requirement through the Act, Regulations and Technical Rules
- **Recommendation** means it is a proposed approach or method as part of guidance or technical bulletins provided
- **Suggestion means** a change might help in the understanding and clarity of a specific item

SPPB General Comments and Observations
Cataraqui Draft AR

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| | <p>the assessment report. Since the work plan says the work will be completed for April 30, 2010, it is important to note that the Tier 3 will not be included in the assessment report due on October 12, 2010 because only one public consultation would have been completed for the tier 3 water budget work. This comment also applies to other sections that indicate that the work is forthcoming, i.e. emergency response to spills and transportation corridors.</p> <p>Maps:</p> <p>10. Ensure that maps conform to the ministry symbology document, i.e. Map 2-10 – municipal wells symbol.</p> <p>Data Gaps / Additional Work:</p> <p>11. Recommend rewording the text that refers to additional work unless the work is a requirement under the CWA / technical rules.</p> <p>12. Ensure that the use of the term data gaps conforms to the Director's Memo (October 2009).</p> | <p>9. Legislative Requirement</p> <p>10. Legislative Requirement</p> <p>11. Recommendation</p> <p>12. Legislative Requirement</p> |
| <p>Surface water</p> | <ol style="list-style-type: none"> 1. For all IPZs: the AR says “an appropriate setback was used”. The rules require that you document the methodology used, which means that the report should clearly state which setback was used for each IPZ of each intake, for example, the 120m, RL, or a combination, or, if approved by the director, an alternate method. . Also the AR does not explain from where the 120m was delineated, i.e. from the shoreline level or the HWM. 2. Water bodies (offshore areas) within IPZs should be coloured in the same colour as onshore areas of the relevant IPZ, as per the symbology document requirements. Examples: James King intake (for offshore area of Gananoque (IPZ-2) River - Map 6-10), Sydenham Intake (for offshore area of Sydenham lake (IPZ-1) - Map6-67). 3. IPZ-1 and IPZ-2 delineation on Islands: If IPZ-1 or IPZ-2 hits the shoreline of an island, a setback of 120m or RL, whichever is greater, should be used for delineation on land. In most cases for islands, the 120m setback is used. The setback on islands does not appear to have been used, for example: Map 6-10 (James W. King) and Map 6-17 (Kingston). The setback must be followed unless an alternate method has been approved by the director. 4. For the Brockville and Gananoque Intakes: IPZ-1 was extended by 1km to the downstream to capture reverse flows using Rule 64, but the AR does not provide technical rationale regarding this extension or reference where study(ies) has/have recommended that extension of IPZ-1 at the downstream of the intake. 5. For the Picton intake: This intake falls in a neighbouring SPA where IPZs are delineated. The Cataraqui AR should consider providing information regarding Picton Intake such as, at a minimum, the classification of the intake and the vulnerability scores for IPZ-1, IPZ-2 and IPZ-3a,b. The AR shows the vulnerability score for IPZ-3b only where it falls in Cat-SPA but it would be useful to show the vulnerability score for IPZ-1 and IPZ-2 and IPZ-3a that do not fall within the Cat-SPA. This is a recommendation to allow a reviewer to see the progression of scoring in | <ol style="list-style-type: none"> 1. Legislative Requirement 2. Legislative Requirement 3. Legislative Requirement 4. Legislative Requirement 5. Recommendation |

SPPB General Comments and Observations
Cataraqui Draft AR

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| | <p>the IPZ for that intake.</p> <p>6. IPZ-2: In general the IPZ-2 delineation section needs more details on how IPZ-2s were delineated for all intakes and why some areas in the water body, i.e. areas of water between IPZ-2 offshore line and shoreline, for James W. King (Map 6-10), Kingston (Map 6-17), Fairfield (Map 6-31) were not included. The report should clarify if this is a result of model limitations or assumptions, or whether the model clearly shows these areas are not included? Provide information on the uncertainty level given any limitations noted?</p> <p>7. The delineation of IPZ-2s was done using 10 yrs wind event but the AR does not provide information on the wind speed(s) and wind direction(s) used for this delineation. The AR refers to a reference where the IPZ-2 delineation is described in details. These reference documents were not provided with the document nor were they posted at the CSPA website. If information needed to meet the requirements of the rules is in a reference document, the document must be made available.</p> <p>8. For Sydenham intake: No information was provided on the flow conditions considered and used for delineating IPZ-2.</p> <p>9. For the Sanhurst intake IPZ-2: the onshore IPZ-2 at the west side of the intake, where the setback of 120m is delineated, seems to be an agriculture area. Have transport pathways in this area such as tile drainage or ditches been considered? Rule 70 allows an IPZ-2 to be extended to capture such transport pathways.</p> <p>10. Sec. 6.2.1 says "<i>all time of travel was done using Manning's equation</i>". Manning equation calculates the flow velocity and not the time of travel. Knowing the velocity of flow and the residual time of travel, distance-related to time of travel can be then calculated. There is no reference regarding how the Manning equation was applied, i.e. what flow conditions for sewer-system within IPZ-2 were used for determining the distance on the sewer system.</p> <p>11. The AR says transport pathways are included within the Time of Travel chosen for IPZ-2. There are insufficient details in the AR for each IPZ-2 of each intake on what methods were used to include these pathways. Has professional judgement been considered for transport pathways? And how?</p> <p>12. Page 110 – reference to map 5-58 should be 6-58 – Great Lakes Intake Protection Zone 3.</p> <p>13. Page 145 and 150 – states that the IPZ3 delineations are acceptable and reasonable at this time. This implies they won't be reasonable at another date and is a presumption that should not be stated in the AR. Limitations with respect to data can be discussed in a more appropriate manner.</p> <p>14. The AR shows that IPZ-3 is being delineated using a modelling approach and says "...concentration that harm the raw water at the plant...". The word "harm" is not appropriate.. The technical rules refer to a deterioration to the quality of water for use as a source of drinking water.</p> <p>15. Vulnerability scoring for Sydenham intake: the AR lacks information on the method applied for determining the area vulnerability factor and source vulnerability factor, and therefore, the vulnerability score. The AR should have the information required as per Rule 92 and Rule 95. The AR does not show the Vfa and Vfs scores for each IPZ and only shows the final VS.</p> | <p>6. Legislative Requirement</p> <p>7. Legislative Requirement</p> <p>8. Legislative Requirement</p> <p>9. Recommendation</p> <p>10. Legislative Requirement</p> <p>11. Recommendation</p> <p>12. Recommendation</p> <p>13. Recommendation</p> <p>14. Recommendation</p> <p>15. Legislative Requirement</p> |
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SPPB General Comments and Observations
Cataraqui Draft AR

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| | <p>16. Area Vulnerability Factor for the Brockville IPZ-2: The AR does not show how the considerations in rule 92 were considered and chosen for assigning the area vulnerability factor, i.e. Was area vulnerability factor assigned based on an IPZ-2 truncated at the international boundary with US, as per Map 6-1, or within the entire IPZ-2 that extends to the US side as per Map 6-2?</p> <p>17. Sec.6.2.2: The AR states, “<i>Vfa can range from 7 to 9 for Type A and Type B intakes and from 1 to 9 for Type C and Type D intakes</i>”. This statement is not correct. Vfa for all intake types for IPZ-2 ranges from 7 to 9 while Vfa ranges from 1 to 9 for certain intake types of C and D for IPZ-3. Vfa is not applicable for Type A and B intakes for IPZ-3.</p> <p>18. Table 6-4: what does the third column “description” refer to? No text is given regarding this column and how this “description” is linked to the Vulnerability score.</p> <p>19. Source Vulnerability Factor- Appendix J: This appendix shows how Vfs were set out for each SW intake but it lacks information on the method applied in determining the Vfs.</p> <p>20. . Rules 13 and 14 require documentations on how the level of uncertainty was determined and how the factors mentioned in Rule 14 were considered for each IPZ for each Intake. The AR refers to Appendix I for more details on Uncertainty level but Appendix I talks about Transportation Corridors. There is no other Appendix that talks about determination of uncertainty level.</p> | <p>16. Legislative Requirement</p> <p>17. Legislative Requirement</p> <p>18. Recommendation</p> <p>19. Recommendation</p> <p>20. Legislative Requirement</p> |
| <p>Ground water</p> | <p>1. WHPAs for Landsdowne appear to be relatively concentric without any indication of a 'tail'. This shape should be explained relative to the hydrogeologic characteristics of the area (water table, drawdown, etc.).</p> <p>2. The Cana WHPA-E does not appear to be consistent with the Technical Rules and should be revised or the anomalies satisfactorily explained.</p> <p>3. Landsdowne wells are described as GUDI, however no WHPA-E has been delineated in the report and no work plan was provided in the absence of the WHPA-E. If the WHPA-E is not required as a result of rule 49(3), then this must be explained in the report.</p> <p>4. In determining the groundwater vulnerability, the ISI methodology was reportedly used, but at the well data points. Based on a review of borehole data, there are examples where the ISI method was not always applied correctly as wells which would clearly be semi-confined and somewhat protected (less than high aquifer vulnerability under the ISI method) still show up on the map (5-1) as highly vulnerable. The process for confined or semi-confined bedrock wells should be confirmed for the ISI analysis.</p> <p>5. ISI was initially used but without kriging, leaving gaps in the groundwater vulnerability between wells. Where well data was sparse or erroneous, the report indicates that the surficial geology was considered in assigning the groundwater vulnerability. However, when reviewing the both maps 5-1 (ISI) and 5-2 (surficial geology) there are areas identified as being highly vulnerable despite both maps showing lower vulnerability. This should be investigated, and where appropriate, corrected. With the "other method" of surficial geology employed, this is ranked as '4'.</p> <p>6. The Cana well vulnerability scoring does not appear to be consistent</p> | <p>1. Recommendation</p> <p>2. Legislative Requirement</p> <p>3. Legislative Requirement</p> <p>4. Legislative Requirement</p> <p>5. Legislative Requirement</p> |

SPPB General Comments and Observations
Cataraqui Draft AR

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| | <p>with regional ISI (groundwater vulnerability). If the local groundwater vulnerability was determined separately at the WHPA , it should be clearly documented and mapped.</p> <ol style="list-style-type: none"> 7. Lansdowne wells have been mapped as having a high groundwater vulnerability, reportedly using ISI. However, available evidence from the well logs reported suggest that these wells are relatively deep (50m) and well protected. This discrepancy should be explained or corrected. 8. It is reported that the ISI method employed locally in WHPAs only considers the thickness and type of soil overlying the bedrock. This is NOT consistent with the ISI methodology, which considers the rock in confined or semi-confined aquifers, and should be corrected where necessary. 9. Transport pathways have been considered and some have been identified in some WHPAs. Where they have been determined to alter the vulnerability of an aquifer (e.g. Miller Manor) the justification for increasing the vulnerability of the subject aquifer must be clearly documented in order to comply with Rule 41. 10. Uncertainty has been considered and documented, although without detailed justification. 11. SGRA: The report concludes that recharge occurs in all parts of the CSPA area based mainly on the geology of the area, however, it seems counter intuitive that the Frontenac Axis which is comprised of metamorphic rock and encompasses the greatest number of lakes, rivers and creeks has such a high percentage of SGRA versus the Paleozoic formations which flank it. <p>Understandably, the report concludes that significant groundwater recharge areas require further research. Some refinement of the SGRA assessment may be readily obtained from the MNM Ontario Geological Survey "OGS Earth" drift thickness available via Google Earth.</p> <ol style="list-style-type: none"> 12. WHPA: The Cana Well Supply, Lansdowne Well Supply, Miller Manor Apartments Well Supply are noted to have had a "limited GUDI assessment"; this phrase should be explained. | <ol style="list-style-type: none"> 6. Legislative Requirement 7. Legislative Requirement 8. Legislative Requirement 9. Legislative Requirement 10. Legislative Requirement 11. Recommendation 12. Recommendation |
| <p>Water Budget</p> | <ol style="list-style-type: none"> 1. Tier 3 – The work plan for the Tier 3 should include: <ul style="list-style-type: none"> • Anticipated start date and estimated completion date for the Tier 3 • Start dates and anticipated completion dates for each of the following categories: <ul style="list-style-type: none"> • Data compilation and modelling • Risk Assessment • Final Reporting. 2. Maps are required to illustrate groundwater recharges and discharge areas, and Tier 2 subwatershed stress levels. 3. SGRA maps have been included. However, there are 3 maps (one for TR 44(1), one for TR 44(2), and one with both). The SPC must select 44(1) or 44(2) and include the map in the AR report. Since these maps can be considered in developing the AR can reference the additional maps in the Technical Water Budget report instead of including them in | <ol style="list-style-type: none"> 1. Recommendation 2. Legislative Requirement 3. Legislative Requirement |

SPPB General Comments and Observations
Catarqui Draft AR

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| | <p>the AR</p> <p>4. A table and/or map must be included to locate and identify the stream flow gauging stations.</p> | <p>4. Legislative Requirement</p> |
| <p>Threats and Issues</p> | <ol style="list-style-type: none"> 1. The title for Chapter 4 would be issues evaluation and threat <u>assessment</u>. <u>The threat inventory reference is out of date.</u> 2. Page 55 references circumstance #478, but the associated text is actually associated with reference #277. 3. Section 5.1.2.3 is about HVAs. On Page 68 the report correctly states that HVA cannot have any SDWTs; however in the same section there is a reference to maps that show where activities can be significant, moderate or low. The reference to significant threat areas on a map that relates to an area where they can't exist can be confusing. This also applies to page 72, regarding SGRA. 4. Various sections state that only threats approach was used to identify threats and that the identification of threats associated with issues will be completed in the future. Issues have been identified. Therefore, it should clarified first if issues meet the tests in rule 114, and where they do, a work plan for identifying the issue contributing areas, and then threats should be included in the report. 5. Appendix H uses the term "negligible DWTs", which is not a term used in the technical rules. This is an artefact of old guidance modules and should not be used in the report. Additional text is required in the report to explain how to interpret the information in Appendix H and the applicable circumstances. 6. The AR states that the CTC source protection region has concluded that activities along the north shore could reach the Catarqui are. It then mentions tritium is of particular interest. Its inappropriate to have these two statements together as it implies the Central Lake Ontario (CLO) SPA has indicated that tritium may reach the Catarqui intakes and cause problem with drinking water. CTC has not made this conclusion or made any statements about this in their CLO report. If the Catarqui is identifying tritium as a possible issue in their source protection area, this should be discussed separately with relevant information on this included in the discussion. Based on discussions with CTC, they have no evidence that tritium causes or will cause issues with drinking water. 7. Section 4.2, first paragraph- definition of issue is incorrect and needs to be modified to reflect definition in Technical Rules. 8. Section 4.2 makes reference to Appendix "F-1" should be changed to simply read "Appendix F." 9. The sentence at the bottom of page 52 "Drinking water threats relate to the past, present, and future" seems out of place. 10. Section 4.3, page 53, 5th paragraph- "The Act requires local communities to remove significant threats from being a problem, and to prevent moderate ones from becoming significant" This sentence is incorrect and should be revised. Review the wording in the Act to determine appropriate wording. The Act requires significant threats cease to be significant. It does not say anything about moderate threats becoming significant, it says there must be policies to ensure threats don't become significant. 11. Section 4.3.3.1 on page 55, second paragraph says the province | <ol style="list-style-type: none"> 1. Suggestion. 2. Typo 3. Recommendation 4. Recommendation 5. Legislative Requirement 6. Recommendation 7. Legislative Requirement 8. typo 9. Suggestion 10. Legislative Requirement |

SPPB General Comments and Observations
Cataraqui Draft AR

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| | <p>requires the Tables of drinking Water threats be modified. This is incorrect. The regulations require the AR identify the areas where threats are significant, moderate and low, and the circumstances under which an activity is a significant, moderate, or low drinking water threat. How this is done is determined by the committee. The province has provided provincial lists of circumstances to aid with this. The Cataraqui AR provide their own tables in Appendix G of the report to support these two tasks.</p> | <p>11. Recommendation</p> |
| <p>Land Management</p> | <ol style="list-style-type: none"> 1. Table 8 of Appendix C contains the % of managed lands and livestock density per vulnerable area, The technical rules require maps showing the percentages of managed lands and livestock density within each sub area list in rule 16 (9) and (1). Map 2-20 and 2-21 only show the percentages over the full SPA Chapter 2 says that the method prescribed by MOE was used, but it was not described. The rules require that the report document methods used, not just say that the rules were followed. 2. Appendix C has a table with the impervious areas for the IPZs, HVAs and SGRAs. No % is provided for the WHPAs. Again, it's mandatory to have maps of the percentage within the sub areas as set out in technical rule 16(11). | <ol style="list-style-type: none"> 1. Legislative Requirement 2. Legislative Requirement |



May 20, 2010

Mr. Rob McRae MCIP, RPP
Project Manager, Source Water Protection
Cataraqui Region Conservation Authority
1641 Perth Road, P.O. Box 160
Glenburnie ON K0H 1S0

Dear Mr. McRae,

RE: CHAIR'S COMMENTS – DRAFT ASSESSMENT REPORT: CATARAQUI SOURCE PROTECTION AREA

I am writing to provide the Cataraqui Region Conservation Authority (CRCA) staff team with my comments on the Draft Assessment Report: Cataraqui Source Protection Area (April 2010).

Your summary of comments received on the document during the 35 day posting period will be discussed at the June meeting of the Cataraqui Source Protection Committee (SP Committee). The comments will be discussed in greater detail by the Assessment Report Subcommittee.

Per the decision at our May meeting, our target to publish the next ("proposed") version of the document for local review is July 2010. This will allow the Cataraqui Source Protection Authority to comply with the October 12, 2010 due date for submission of the proposed version (and related comments) to the Ontario Ministry of the Environment.

General Comments

1. The draft report is the culmination of five years of technical work and consultation with local communities. The CRCA staff team has put considerable effort into working with our SP Committee, neighbouring source protection regions, municipalities, and others on the Draft Assessment Report. It will provide a solid foundation for our work on an initial source protection plan. Further data collection and research will help to further improve our technical understanding over time.
2. Thus far comments have been received from Conservation Ontario (May 13th) and the Ontario Ministry of the Environment (May 13th). I ask that the staff team carefully review all comments received and request that you please advise the SP Committee as to the merit of each comment, its impact on the document and local communities, and the feasibility of making changes to the next 'proposed' version.
3. Many of the comments received to-date call for the addition of technical details to the report. The staff team and SP Committee will need to determine how more of the 'story' can be included in the document (and/or its appendices) without taking away from its accessibility to readers across our source protection area. As you may recall the SP Committee was very clear that they wanted a non-technical report that was readable for the general public. The technical data is available in the technical reports that are available to

anyone wishing to get into the methodology deeper. A balance is what we shall be going forward with for the Proposed Assessment Report.

4. I support the ongoing work by the CRCA staff team and consultants to resolve the outstanding questions of the Province about our area-wide groundwater sources, and to do so in concert with other source protection areas and regions with similar hydrogeological conditions.
5. The document should be carefully reviewed for minor errors and inconsistencies.

Specific Comments

I have the following specific comments:

1. The Assessment Report Summary should be kept consistent with any revised text in the balance of the document.
2. In Chapter 2, I recommend that text be added to acknowledge the topics of pharmaceuticals, personal care products and wind farms/green energy, ideally in a manner that is similar to other source protection areas and regions.
3. In Chapter 2, the Per cent Managed Lands and Livestock Density maps for highly vulnerable aquifers and significant recharge areas need to be scoped to the final extent of those vulnerable areas.
4. In Chapter 4, the Vulnerable Areas map should be updated to reflect the final extent of the vulnerable areas.
5. In Chapter 6, under the "Threat Inventory" subsection for each intake, the text regarding intake protection zone 3 (event-based approach) should indicate that the findings will be included in an updated version of the Assessment Report.
6. In Chapter 6, the last paragraph about "Future Activities" around the Bath intake (regarding official plan updates) should more clearly indicate that a small portion of the IPZ falls within the Town of Greater Napanee.
7. In Chapter 9, the Key Findings should be made consistent with any revised text in earlier chapters.
8. The Glossary should be reviewed to ensure that all technical terms (e.g. DNAPL, organic solvent) are appropriately defined for the reader.
9. Appendix 'G' should be updated to reflect the latest version of the Tables of Drinking Water Threats (Ontario Ministry of the Environment, November 2009);
10. The enumeration of drinking water threats in Appendix 'H' should be updated to reflect input provided by landowners and business operators to the CRCA since April 7, 2010.

Thank you for the support that you and your team provide to the Cataraqui Source Protection Committee. I look forward to working with the team to improve the document prior to its next publication. If you have any questions about my comments, please let me know.

Yours truly,

(original signed by)

John C. Williamson
Chair, Cataraqui Source Protection Committee

c.c. Robert Morrison, Chair, Cataraqui Source Protection Authority, via e-mail
Steve Knechtel, General Manager / Secretary-Treasurer, CRCA, via e-mail
Cataraqui Source Protection Committee, via e-mail

