Mississippi Valley Conservation

RIDEAU VALLEY CONSERVATION AUTHORITY

AGENDA

Mississippi-Rideau Source Protection Committee (MRSPC)

January 7, 2010
1:00 pm
Rideau Valley Conservation Authority, Monterey Boardroom
3889 Rideau Valley Drive, Manotick

		Pg.	
1.0	**Welcome and Introductions** a. Agenda Review b. Notice of Proxies c. Adoption of the Agenda (D) d. Declarations of Interest e. Approval of Minutes – December 3, 2009 (D) * draft minutes attached as a separate document f. Status of Action Items – Staff Report Attached (D) …..……..……	1	*Chair Stavinga*
	g. Correspondence – None		
2.0	**Assessment Report Development** – Staff Report Attached (D) …..…..……..	4	*Brian Stratton*
	a. *Preliminary Draft* Surface Water Technical Studies (intake protection zone delineation and assessment of vulnerability)……	17	
	i. Britannia (City of Ottawa intake) ii. Lemieux Island (City of Ottawa intake)		
3.0	**Assessment Report Due Date Extension** – Staff Report Attached (D)…..…..	50	*Chair Stavinga*
	a. The Committee requires an extended due date to complete their Assessment Report. Members will consider a *draft* time table and work plan which will be submitted to the Province for approval.		
4.0	**Well Aware Program** – Staff Report Attached (D) …..……..	58	*Patricia Larkin*
	a. Members will consider submitting a letter of support for the program to Minister Gerretsen		
5.0	**Community Outreach** – Staff Report Attached (D) …..…….	60	*Chair Stavinga*
	a. Members & staff report on activities since the last meeting b. Discuss upcoming events & opportunities		
6.0	**Other Business**		*Chair Stavinga*
7.0	**Member Inquiries**		*Chair Stavinga*
8.0	**Next Meeting** – February 4, 2010, 1pm Rideau Valley Conservation Authority, Monterey Boardroom 3889 Rideau Valley Drive, Manotick		*Chair Stavinga*
9.0	**Adjournment**		*Chair Stavinga*

(I) = Information (D) = Decision

Delegations wishing to speak to an item on the Agenda are asked to contact Sommer Casgrain-Robertson at 613-692-3571 ext 1147 or sommer.robertson@mrsourcewater.ca before the meeting.

1.0 f) STATUS OF ACTION ITEMS

Date: December 18, 2009
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

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

Staff & Chair Action Items:

	Issue	Action	Lead	Status
1	Site 41	Members would like an update from the Province on Site 41.	Mary Wooding	**In-progress**
2	Well Aware Program	A member would like the Committee to submit a letter of support for the program to Minister Gerretsen	Patricia Larkin	**Complete** Patricia Larkin prepared a draft letter of support for the Committee to consider at their January 7, 2010 meeting (see Agenda Item 3.0)
2	Geothermal Systems	Determine if geothermal systems should be considered a threat to drinking water sources	Sommer Casgrain-Robertson	**On-Going**
2	Ottawa River Watershed Inter-Jurisdictional Committee	Encourage MOE to take the lead role in establishing an Ottawa River watershed inter-jurisdictional committee	Mary Wooding	**In-Progress** Chair Stavinga has requested an update from MOE on their progress in engaging the Province of Quebec.
3	Vacant industry / commercial seat on the MRSPC	Fill a vacancy on the MRSPC	Sommer Casgrain-Robertson	**In-Progress** This position was posted on November 26 and applications will be accepted until February 1, 2010.

Issue		Action	Lead	Status
4	Issues of concern outside the scope of the *Clean Water Act*	Staff develop a section in the Assessment Report to document issues of concern that fall outside the scope of the *Clean Water Act*	Sommer Casgrain-Robertson	**On-Going** A section will be included in the *draft* Assessment Report.
5	Uranium	MVC and local Health Units work together to raise public awareness about naturally occurring uranium in drinking water	Sommer Casgrain-Robertson & Mary Wooding	**In-progress** Local health units developed a brochure which is now being reviewed by Health Canada. Once completed a sheet of local information will be attached. Local health units will keep the MRSPC informed of their progress.
6	Update Web Site	Update the web site	Sommer Casgrain-Robertson	**On-going** Many updates have been made to the web site and staff will continue to improve it.
7	Compensation Models	Staff to collect other compensation models (e.g. Ottawa wetland policy, Alternate Land Use Services).	Sommer Casgrain-Robertson	**In-progress**

MRSPC Member Action Items:

Issue		Action	Lead	Status
1	Members were concerned that attendance might be low at Assessment Report open houses and groups who should be involved in the process are not	Members were asked to provide Sommer with contact information for groups they feel should be involved in the process – they will be added to our mailing list.	All Members	**Ongoing**
2	OFEC Conference Calls & Training Sessions	Richard Fraser will provide the MRSPC with updates on OFEC conference calls & training sessions	Richard Fraser	**Ongoing**

3	Community Outreach opportunities	Members to notify Sommer of potential events and opportunities to engage the public about source protection	All members	**Ongoing**

2.0 Assessment Report Development

Date: December 18, 2009
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendations:

1. That the Mississippi-Rideau Source Protection Committee approve the following studies and their summaries as *Draft* for public consultation:
   - **Britannia and Lemieux Island Surface Water Studies**

January 7, 2010 – MRSPC Meeting
The MRSPC will review *preliminary draft* municipal surface water studies and study summaries for Britannia and Lemieux Island (the City of Ottawa's intakes on the Ottawa River). If approved as *draft* for public consultation, these studies and summaries will be presented to the Mississippi Valley and Rideau Valley Source Protection Authorities, relevant municipalities and the public for review and comment. Two public open houses will be held near Britannia and Lemieux Island later in the new year.

December 3, 2009 – MRSPC Meeting
The MRSPC reviewed a *preliminary draft* Water Budget Chapter for the assessment report. This chapter is now undergoing a communications review and will be included in the *preliminary draft* Assessment Report to be presented to the Committee later this spring. Once the committee approves the report as *draft* for public consultation, it will be circulated and posted for municipal and public comments. Public open houses will also be held to solicit public feedback.

November 5, 2009 – MRSPC Meeting
The MRSPC reviewed a *preliminary draft* study and study summary that provided:

- An estimated inventory of existing land use activities that pose a potential significant threat to municipal groundwater source water; and
- A list of known documented groundwater quality issues.

This study and summary was approved as draft for public consultation and will be presented to the Mississippi Valley and Rideau Valley Source Protection Authorities in November / December. It will then be circulated to municipalities for their review and comment and posted for public review and comment.

September 3, 2009 – MRSPC Meeting
The MRSPC reviewed *preliminary draft* studies and summaries that provided a Conceptual Water Budget (regional scale), Tier 1 Water Budget (subwatershed scale) and review of Climate Change knowledge. The Committee approved them as *draft* for public consultation. The summaries were presented to the Mississippi Valley and Rideau Valley Source Protection Authorities on September 16 and 24 respectively and

will be circulated to municipalities for their review and comment. Summaries will then be posted and made available for public review and comment.

July 9, 2009 – MRSPC Meeting
The MRSPC reviewed *preliminary draft* studies and summaries identifying Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas at the regional scale and approved them as *draft* for public consultation. They were presented to the Mississippi Valley and Rideau Valley Source Protection Authorities on September 16 and August 27 respectively and have been circulated to municipalities for their review and comment. Study summaries will be posted for public review and comment.

June 4, 2009 – MRSPC Meeting
The MRSPC reviewed *preliminary draft* municipal groundwater studies and summaries for Almonte, Munster, Richmond (King's Park) and Westport and approved them as *draft* for public consultation. Copies of the *preliminary draft* summaries were provided to all relevant municipalities and source protection authority members in advance of the meeting. The approved *draft* study summaries were presented to the Rideau Valley and Mississippi Valley Source Protection Authorities on June 25 and July 15 respectively. Study results were then presented to the public at three open houses in late July: Richmond/Munster (July 20), Westport (July 21), and Almonte (July 22).

May 7, 2009 – MRSPC Meeting
The MRSPC reviewed *preliminary draft* municipal surface water studies and study summaries for Carleton Place, Perth and Smiths Falls. They will continue their deliberations at a later meeting following a technical briefing in late August with MOE staff and the study consultants. Once approved as *draft* for public consultation, these studies and summaries will be presented to the Mississippi Valley and Rideau Valley Source Protection Authorities, relevant municipalities and the public for review and comment. Three public open houses will be held in Carleton Place, Perth and Smiths Falls.

April 2, 2009 – MRSPC Meeting
The MRSPC reviewed *preliminary draft* municipal groundwater studies and summaries for Carp, Kemptville and Merrickville and approved them as *draft* for public consultation. These studies and their summaries were provided to municipalities and presented to the Mississippi Valley and Rideau Valley Source Protection Authorities on April 15 and 23 respectively. Study results were then presented at public open houses in Carp (June 8), Merrickville (June 10) and Kemptville (June 11).

Background
Source Protection Committees are required to produce Assessment Reports. These reports will map local sources of drinking water, determine how vulnerable they are to contamination and overuse, and identify what land uses and activities pose a risk. Committees will then use this science to develop Source Protection Plans because they will know where source protection policies are needed and what risks those policies need to address.

The Mississippi-Rideau Source Protection Committee (MRSPC) must develop two Assessment Reports: one for the Mississippi watershed, and one for the Rideau watershed.

The Assessment Reports will contain the following components (underlining means the study has been approved as *draft* for public consultation by the MRSPC):

- Watershed Characterization
- Water Budget
- Vulnerable area delineation
    - Significant Groundwater Recharge Areas
    - Highly Vulnerable Aquifers
    - Wellhead Protection Areas for:
        - Almonte, Carp, Kemptville, Lanark (future planned system), Merrickville, Munster Hamlet, Richmond (King's Park subdivision) and Westport
    - Intake Protection Zones for:
        - Carleton Place, Ottawa (Britannia & Lemieux Island), Perth and Smiths Falls
- Prescribed Threats Summary
- Inventory of existing Issues and Significant Threats for groundwater
- Inventory of existing Issues and Significant Threats for surface water
- Climate Change Review

Due Date

Proposed Assessment Reports are due to the MOE one year after Terms of Reference are approved. Source Protection Committees submit *proposed* Assessment Reports to their Source Protection Authorities, who in turn submit them to MOE for approval.

Terms of Reference were approved for the Mississippi Valley Source Protection Area on February 5, 2009, therefore, a *proposed* Assessment Report for the Mississippi watershed must be submitted to MOE by **February 5, 2010.** Terms of Reference were approved for the Rideau Valley Source Protection Area on March 16, 2009, therefore, a *proposed* Assessment Report for the Rideau watershed must be submitted to MOE by **March 16, 2010**.

Staff hope to combine the two Assessment Reports into one document for the purposes of public consultation because:

- Much of the information is regional and would be repeated in both versions;
- Many municipalities are shared between the Mississippi and Rideau watersheds and it would be onerous for them to review and comment on two stand alone documents;
- It is more convenient for the public and cost effective if both Assessment Reports undergo public consultation at the same time.

This means both Assessment Reports have to be completed by the earliest of the two deadlines which is February 5, 2010.

Extension Required

The following work plan and timeline illustrates that a due date of February 5, 2010 is unachieved. The timeline below recommends submitting a *proposed* Assessment Report to MOE by mid 2010.

There are a couple of reasons why this extension is required. One, the Assessment Report Technical Rules were not finalized by MOE until November 20, 2008. This meant that some studies underway since 2006, were on hold during that time waiting for final rules. Consultants and staff had to revise or add additional components to finalize some studies to conform with the final requirements. The second reason is a couple of studies in the Mississippi-Rideau region have been delayed because Committee members, staff and consultants required face-to-face meetings with MOE to clarify sections of the final Technical Rules.

This extension is also required to ensure effective public consultation can be undertaken. Years of work have gone into developing sound science on which sound source protection plan policies can be built. To foster public support and buy-in we cannot rush the final stages of developing Assessment Reports. Municipalities, interested groups and the public need adequate time to review the information and voice their comments and concerns.

The need to request an extension is further discussed under Agenda Item 3.0.

Amendment Required
The *proposed* Assessment Report that will be completed and submitted in mid 2010, will not contain information about the future municipal drinking water system planned for Lanark Village. This information will be identified as a data gap and included in a revised Assesment Report. Since it is a self contained study, and pertains to a municipal system that does not currently supply people with drinking water, it seemed appropriate to submit it as an amendment to the Assessment Report later in 2011.

Detailed Work Plan and Timeline
The following work plan and timeline breaks the process of developing Assessment Reports into three phases.

Phase 1:
- Completion of background technical studies
- SPC, SPA, municipal and public review of draft findings
- Development of *preliminary draft* Assessment Report chapters
- SPC review of *preliminary draft* chapters

Phase 2:
- Consolidation of chapters into a *preliminary draft* Assessment Report
- SPC review, amendment and approval as “draft for public consultation”
- SPA, municipal and public consultation on the *draft* Assessment Report

Phase 3:
- SPC review of public comments received on *draft* Assessment Report
- Development of *proposed* Assessment Report
- Public consultation on the *proposed* Assessment Report
- Submission of the *proposed* Assessment Report to MOE for approval

Phase 1 Technical Studies

Staff and consultants have been developing background technical studies for a couple of years now. These studies began based on draft technical guidance from MOE and are now being finalized to meet the approved Technical Rules. These studies contain the scientific information the MRSPC needs to complete Assessment Reports.

In spring 2008, a *preliminary draft* Watershed Characterization Report and *preliminary draft* Conceptual Water Budget (based on MOE's draft guidance) were presented to the MRSPC. These studies are currently being updated to meet the final approved Technical Rules and will be brought back to the MRSPC as outlined below.

Once technical studies are completed, and in many cases peer reviewed:

- Staff will develop a summary outlining the study's purpose, methodology and findings (some studies will be grouped into one summary).
- The summary will be presented to the MRSPC for review and possible amendment (the technical study will be provided on CD).
- The summary will be presented to the Source Protection Authorities, then circulated to municipalities, and then the public for review.
  - Summaries will be posted on the web site for comment
  - 11 public open houses will be held.
  - Each open house will focus on the local municipal drinking water system (wellhead protection area or intake protection zone) and provide an overview of regional information from the Watershed Characterization Report, Water Budget Reports and Highly Vulnerable Aquifer and Significant Groundwater Recharge Area studies as available.
  - Full technical studies will be available to anyone on CD
- Everyone will be encouraged to provide feedback and traditional and local knowledge at this early stage so it can be considered when the *preliminary draft* Assessment Reports are being developed.

Staff will develop a *preliminary draft* Assessment Report in collaboration with our neighbouring source protection regions to be consistent where possible.
Individual *preliminary draft* chapters will be brought to the MRSPC for review and comment as soon as they are produced. Chapters will be amended to reflect MRSPC feedback and will be compiled into a *preliminary draft* Assessment Report.

Carp, Kemptville and Merrickville

Municipal Drinking Water Systems (groundwater)

Month	Task	Timeline
March 2009	Golder complete Wellhead Protection Area Studies	**Completed** Early March
	Staff complete Threats Summary	**Completed** Early March
	Staff develop study summaries (reviewed by municipal technical staff)	**Completed** March 16
April 2009	MRSPC review *preliminary draft* study summaries & technical studies (CD). Provide to municipalities before the meeting.	**Completed** April 2

Month	Task	Timeline
May 2009	Send *draft* study summaries & technical studies (CD) to municipalities with invitation to attend open house	**Completed** May 21
	Advertise three open houses (Carp, Kemptville and Merrickville) and comment period	**Completed** May 21
	Send an open house invitation to every property in an area that could score significant threat	**Completed** May 22 - 25
	SPAs review study summaries	**Completed** April 15 & 23
	Make study summaries available at MVC & RVCA offices for public review	**Completed** May 22
June 2009	Hold Open houses for municipal staff & council (afternoon session) and public (evening session)	**Completed** June 8, 10 & 11
Fall 2009	Post study summaries on web site	winter 2009
	Collect comments on study summaries	winter 2009
	Staff review comments received on technical study findings	winter 2009
	MRSPC review summary of public comments	winter 2009
	Staff prepare *preliminary draft* AR chapter	winter 2009
Winter 2010	MRSPC review *preliminary draft* AR Chapter	winter 2010

Carleton Place, Perth and Smiths Falls
Municipal Drinking Water Systems (surface water)

Month	Task	Timeline
April 2009	J.F. Sabourin complete Intake Protection Zone Studies	**Completed** Early April
	Staff complete Threats Summary	**Completed** Early April
	Staff develop study summaries (reviewed by municipal technical staff)	**Completed** April 21
May 2009	MRSPC review *preliminary draft* study summaries & technical studies (CD). Provide to municipalities before the meeting.	**In-Progress** Reviewed May 7 - will continue deliberations at January 2010 meeting
Winter 2010	Send *draft* study summaries & technical studies (CD) to municipalities with invitation to attend open house	Winter 2010
	Advertise three open houses (Carleton Place, Perth and Smiths Falls) and comment period	Winter 2010
	Send an open house invitation to every property in an area that could score significant threat	Winter 2010
	SPAs review study summaries	Winter 2010
	Post study summaries on web site and make available at MVC & RVCA offices for public review	Winter 2010

Month	Task	Timeline
	Hold Open houses for municipal staff & council (afternoon session) and public (evening session)	Winter 2010
	Collect comments on study summaries	Winter 2010
	Staff review comments received on technical study findings and prepare *preliminary draft* AR chapters	Winter 2010
	MRSPC review summary of public comments	Winter 2010
	Staff prepare *preliminary draft* AR chapter	Winter 2010
	MRSPC review *preliminary draft* AR Chapter	Winter 2010

Almonte, Munster, Richmond (King's Park), and Westport
Municipal Drinking Water Systems (groundwater)

Month	Task	Timeline
May 2009	Malroz complete Wellhead Protection Area Study for Westport; Intera / Golder complete other three studies	**Completed** Early May
	Staff complete Threats Summary	**Completed** Early March
	Staff develop study summaries (reviewed by municipal technical staff)	**Completed** May 19
June 2009	MRSPC review *preliminary draft* study summaries & technical studies (CD). Provide to municipalities before the meeting	**Completed** June 4
July 2009	Send *draft* study summaries & technical studies (CD) to municipalities with invitation to attend open house	**Completed** July 7
	Advertise three open houses (Almonte, Richmond and Westport) and comment period	**Completed** July 10
	Send an open house invitation to every property in an area that could score a significant threat	**Completed** July 7
	SPAs review study summaries	**Completed** June 25 & July 15
	Make study summaries available at MVC & RVCA offices for public review	**Completed** July 16
	Hold public Open Houses	**Completed** July 20, 21 & 22
Winter 2009	Post study summaries on web site for public review	winter 2009
	Collect comments on study summaries	winter 2009
	Staff review comments received on technical study findings and prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review summary of public comments	winter 2009
	Staff prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review *preliminary draft* AR Chapter	winter 2010

Significant Groundwater Recharge Areas & Highly Vulnerable Aquifers

Month	Task	Timeline
June 2009	Intera / Golder complete studies	**Completed** Early June
	Staff complete Threats Summary	**Completed** Early June
	Staff develop study summaries (reviewed by municipal technical staff)	**Completed** Mid June
July 2009	MRSPC review *preliminary draft* study summaries & technical studies (CD).	**Completed** July 9
	Send *draft* study summaries & technical studies (CD) to municipalities for review	**Completed** July 29
August 2009	SPAs review study summaries	**Completed** August 27 & Sept 16
Winter 2009	Post study summaries on web site and make available at MVC & RVCA offices for public review	winter 2009
	Collect comments on study summaries	winter 2009
	Staff review comments received on technical study findings and prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review summary of public comments	winter 2009
	Staff prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review *preliminary draft* AR Chapter	winter 2010

Conceptual and Tier 1 Water Budget & Climate Change Review

Month	Task	Timeline
August 2009	Staff, Intera & Delcan complete Tier 1 Water Budget and staff revise Conceptual Water Budget. Jacqueline Oblak complete Climate Change Review	**Completed** August 14
	Staff develop summaries	**Completed** August 18
September 2009	MRSPC review technical studies (CD) and summaries	**Completed** September 3
	Send summaries & technical studies (CD) to municipalities for review and comment	winter 2009
	SPAs review summaries	**Completed** September 24
	Post summaries on web site for review and comment	winter 2009
	Collect comments on summaries	winter 2009
	Staff review comments received on technical study findings	winter 2009
November 2009	Staff prepare *preliminary draft* AR chapter	**Completed** November 16. 2009
December 2009	MRSPC review *preliminary draft* AR Chapter	December 3

Britannia & Lemieux Island (Urban Ottawa)

Municipal Drinking Water Systems (surface water)

Month	Task	Timeline
Winter 2009	Baird complete Intake Protection Zone Study	**Completed** December 21
	Staff complete Threats Summary	**Completed** Early April
	Staff develop study summary (reviewed by municipal technical staff)	**Completed** December 22
January 2010	MRSPC review study summay & technical study (CD). Provide to relevant municipalities before the meeting.	January 7, 2010
	Send study summary & technical study (CD) to relevant municipalities with invitation to attend open house	Late January 2010
February 2010	Advertise open house (urban Ottawa) & comment period	February 2010
	SPAs review study summary	January 2010
	Post study summary on web site and make available at MVC & RVCA offices for public review	February 2010
	Hold Open house	February 2010
Winter 2010	Collect comments on study summary	winter 2010
	Staff review comments received on technical study findings and prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review summary of public comments and *preliminary draft* AR chapter	winter 2010

Groundwater Issues and Significant Threats Inventory

Month	Task	Timeline
October 2009	Dillon complete Threats & Issues Inventory for groundwater	**Completed** Early October
	Staff develop study summary (reviewed by municipal technical staff)	**Completed** October 20
November 2009	MRSPC review study summaries & technical studies (CD). Provide to municipalities before the meeting.	**Completed** November 5
Winter 2009	Send study summaries & technical studies (CD) to municipalities for review	winter 2009
	SPAs review study summaries	**Completed** November 26 & December 2
	Post study summary on web site and make available at MVC & RVCA offices for public review – comments can be submitted during comment period for *draft* AR	winter 2009
	Staff prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review *preliminary draft* AR chapter	winter 2010

Watershed Characterization Report & Surface Water Issues and Significant Threats Inventory

Month	Task	Timeline
Winter 2009	Dillon complete Threats & Issues Inventory for surface water and staff complete Watershed Characterization revisions.	winter 2009
	Staff develop study summary (reviewed by municipal technical staff)	winter 2009
	MRSPC review study summaries & technical studies (CD). Provide to municipalities before the meeting.	winter 2009
	Send study summaries & technical studies (CD) to municipalities for review	winter 2009
	SPAs review study summaries	winter 2009
	Post study summary on web site and make available at MVC & RVCA offices for public review – comments can be submitted during comment period for *draft* AR	winter 2009
	Staff prepare *preliminary draft* AR chapter	winter 2009
	MRSPC review *preliminary draft* AR chapter	winter 2010

Phase 2 *Draft* Assessment Reports

Staff will compile all *draft* Assessment Report chapters into a *preliminary draft* Assessment Report. The MRSPC will review all public comments received on individual technical studies and will consider them when developing a *draft* Assessment Report for public consultation.

Month	Task	Timeline
Spring 2010	SPC review *preliminary draft* AR. Consider publishing *preliminary draft* AR for public consultation (now *draft* AR)	Spring 2010
	SPC publish *draft* AR on website and make available at MVC and RVCA offices	Spring 2010
	SPC send copy of *draft* AR to each municipal clerk for comment	Spring 2010
	SPC send copy of *draft* AR to each person known to be potentially engaging in a significant threat	Spring 2010
	SPC send copy of *draft* AR to each neighbouring SPC for comment	Spring 2010
	SPC issue notice* on website, in newspapers and at other locations advising the public of the opportunity to view and comment on the *draft* AR	Spring 2010
	SPC send copy of *draft* AR to SPAs for comment	Spring 2010
	SPC receive written comments on *draft* AR	Spring 2010
	SPC host 2 public meetings to consult on *draft* ToR (one meeting in each Source Protection Area)	Spring 2010
	Staff prepare a summary of comments received on *draft* AR and prepare recommendations about how to address them	Spring 2010

Phase 3 *Proposed* Assessment Reports

Staff will summarize all comments received on the *draft* Assessment Report during public consultation and make recommendations about how these comments could be addressed. The MRSPC will consider all comments when making final revisions to the *draft* Assessment Report.

The MRSPC will forward their *proposed* Assessment Report to the SPAs and post it for a final public consultation period. SPAs will submit the *proposed* Assessment Report to MOE for review and approval along with any public comments they receive or comments they wish to make.

Month	Task	Timeline
Spring 2010	SPC review summary of comments received on *draft* AR and staff recommendations for proposed changes Consider submitting revised *draft* AR to SPAs and posting for public consultation (now *proposed* AR)	Spring 2010
	Staff prepare *proposed* AR Staff prepare a summary of public comments received on *draft* AR and how they were addressed	Spring 2010
	SPC publish *proposed* AR on website and make available at MVC and RVCA offices	Spring 2010
	SPC send copy of *proposed* AR to each municipal clerk for comment	Spring 2010
	SPC send copy of *proposed* AR to each person known to be potentially engaging in a significant threat	Spring 2010
	SPC send copy of *proposed* AR to neighbouring SPCs for comment	Spring 2010
	SPC send copy of *proposed* AR to each person who submitted comments on *draft* AR	Spring 2010
	SPC issue notice* on website, in newspapers and at other locations advising the public of the opportunity to submit written comments on *proposed* AR to SPAs	Spring 2010
	SPC submit *proposed* AR to SPAs along with a summary of comments received on the *draft* AR and whether they were addressed in the *proposed* AR	Spring 2010
	SPAs receive written comments on *proposed* AR	Spring 2010
	Staff compile comments received	Spring 2010
	SPAs submit to the Minister of the Environment: - p*roposed* AR - summary of comments received on *draft* AR and how they were addressed; and - new comments received on *proposed* AR	Spring 2010
	Staff submit SPAs' package to the Minister	Spring 2010
	SPAs provide SPC with copy of comments received on *proposed* AR	Spring 2010
	Minister will review the package and approve *proposed* AR or require SPAs to amend them and resubmit	approval timeline unknown

Month	Task	Timeline
	Once approved the Minister will publish a notice on the Environmental Bill of Rights Registry	Soon after approval
	SPAs publish *approved* AR on web site and make available at other locations	Soon after approval

* Notice will specify deadline for public comments, how to submit comments, locations of public meetings and locations where the ARs can be viewed (electronically and in hard copy).

Assessment Reports will be prepared in accordance with:

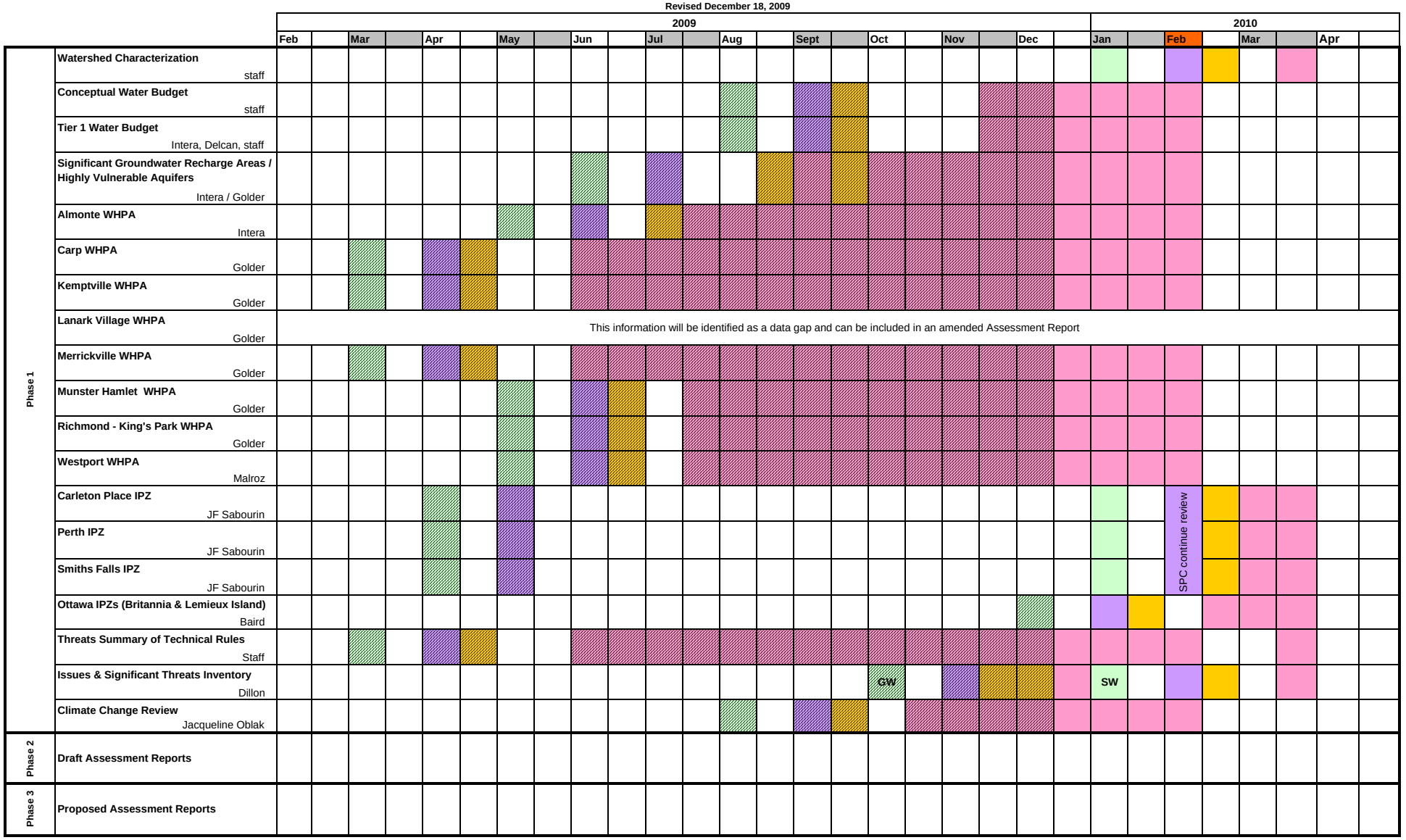
- *Clean Water Act, 2006*
- Ontario Regulation 287/07 "General" (amended by O.Reg. 386/08)
- *Technical Rules: Assessment Report* (dated December 12, 2008)

Attachments:

- Excel spreadsheet illustrating Assessment Report timeline
- *Preliminary Draft* Britannia and Lemieux Island Surface Water Studies

Assessment Report Work Plan & Timeline

Revised December 18, 2009



Feb — February 5, 2010 is our AR due date. This workplan requires an extension until **April 27, 2010**.

Denotes a completed task

GW / SW Groundwater / Surface Water

Phase 1
Technical Study complete (in accordance with final Technical Rules approved Nov 20, 2008 and amended Dec 12, 2008)
SPC review of findings
SPA review of findings
Municipal then Public review of findings

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Mississippi Valley Conservation

RIDEAU VALLEY CONSERVATION AUTHORITY

Drinking Water in the City of Ottawa
Draft Surface Water Study Findings – December 2009

Why Read This?

Property owners in the Ottawa area should review the following study results, currently under public review, to:

- See maps of where Ottawa's City water is taken from on the Ottawa River;
- Understand if this section of the river is at risk of contamination; and
- Learn how land use policies in the Ottawa area will help protect this part of the river.

The Clean Water Act

This study was done under Ontario's *Clean Water Act* which requires municipalities and the local community to work together to protect local drinking water sources from becoming contaminated or depleted. The Act is proactive, and is primarily focused on reducing risks to municipal drinking water sources (lakes, rivers and underground aquifers that supply "city water" to residents). Where drinking water sources face significant risks, mandatory action could be required.

2007 – Source Protection Committee Created

The Mississippi-Rideau Source Protection Committee is made up of 16 people representing a wide variety of local interests and sectors. This Committee is overseeing the development of science-based Source Protection Plans for the Mississippi River and Rideau River watersheds.

2009 – Complete Scientific Studies

Technical studies are mapping local sources of drinking water, determining if they are vulnerable to contamination or overuse, and identifying potential risks. This science will show us where source protection policies are needed, and what risks they need to address.

2012 – Develop Policies to Protect Source Water

Source Protection Plans will contain a combination of voluntary and mandatory land use policies to protect drinking water sources. Under the Act, policies must moderate significant risks and prevent others from becoming significant.

Your Role

Broad public consultation will occur at each stage to ensure all local interests, concerns and knowledge are considered – please participate! The process of developing Source Protection Plans has been designed so that municipalities, conservation authorities, farmers, property owners, industry, businesses, community groups, environmental interests, public health officials, First Nations and the public work together to create effective, locally-workable, source protection policies.

Facts about the Ottawa Municipal Drinking Water System:

- It is operated by the City of Ottawa.
- It supplies approximately 814,000 people in the City of Ottawa with drinking water.
- Its water quality is consistently in compliance with the Ontario Drinking Water Standards.
- It is made up of 2 intakes, Lemieux Island and Britannia, that draw water from the Ottawa River.
- The Lemieux Island water purification plant was constructed in 1932.
- The Britannia water purification plant was constructed in 1961.
- Both plants have undergone significant renovation and improvements since their initial construction. Both water treatment plants have added facilities to collect, thicken and pump waste/residual from the water treatment process to the wastewater treatment facility. At Lemieux Island, construction is currently underway to expand the water treatment facility and increase the treatment capacity from 290 mega litres per day to 420 mega litres per day.

The Ottawa River – Ottawa's Source of Drinking Water

The City of Ottawa draws its drinking water from the Ottawa River, which is a major watershed that drains a 90,000 km^2 area upstream of the city. The river, which originates in central Quebec, is approximately 1,271 kilometers in length and discharges into the St. Lawrence River at Montreal. Over most of its length, the river forms the inter-provincial boundary between Ontario and Quebec. In Ottawa, two water purification plants service the City's population; Map 1 shows the location of these two treatment facilities on the Ottawa River. Both plants are situated along a section of the river that extends from the Chaudière Dam upstream to Lac Deschênes. This segment of the river is unique and hydraulically complex due to the presence of several sets of rapids, a number of islands, and the Chaudière Dam. These physical features make this section of the river non-navigable for most watercraft, although canoes and kayaks are often seen in this reach. Large cribs made of wood and rock are remnants of the logging industry and were used to anchor large log booms. These permanent mooring stations are scattered throughout this part of the river, some sitting only inches below the water surface making navigation vary hazardous, even for small boats.

Water from the Ottawa River is treated at either the Lemieux Island or Britannia water purification plants before it is piped to homes and businesses in the City of Ottawa. Source water is screened to remove larger debris, and then mixed with a coagulant which binds with suspended particles within the water. The coagulant forms into sticky particles (called 'floc'), which attract and trap suspended particles before settling at the bottom of large settling tanks. The clear water from the top of the tank is then filtered through layers of anthracite, sand, and gravel. The filtered water is then disinfected, sodium hydroxide is added to adjust for pH (as well as to help reduce pipe corrosion), and fluoride is added before the water is ready for consumption.

Ottawa Surface Water Study

In December 2009 a draft surface water study was completed to identify where extra measures should be taken to protect the Ottawa River upstream of Ottawa's intake.

Step 1 – Delineate Intake Protection Zones

Experts assessed the flow conditions on the Ottawa River upstream of the Britannia and Lemieux Island intakes. Areas called Intake Protection Zones were then mapped upstream of the intakes. These zones represent regions that are vulnerable to varying degrees of contamination.

Step 2 – Assess Vulnerability

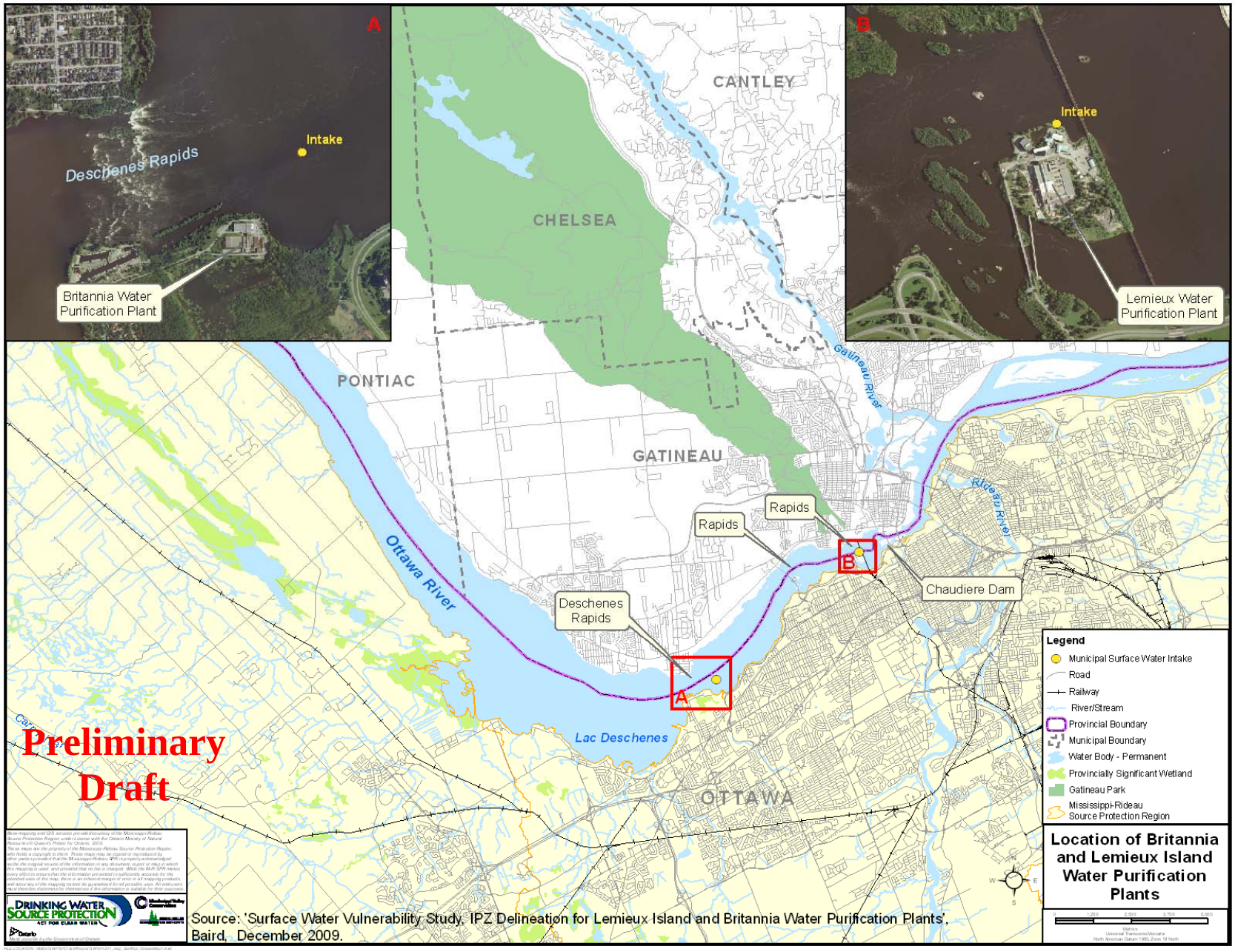
Next, experts assessed how vulnerable the Ottawa River and its tributaries are to contamination within the Intake Protection Zones. This assessment is based on several factors, including the physical characteristics and setting of the intake, the historic incidence of water quality issues, the slope of the land surface, the type of land cover in the Intake Protection Zone, and the built environment around the intakes.

Step 3 – Identify Threats and Issues

The province created a list of land uses and activities that could pose a low, moderate or significant risk in areas where the Ottawa River is vulnerable to contamination within the Mississippi-Rideau Source Protection Region. Experts inventory how many significant risks currently exist and identify any existing documented water quality problems. In accordance with the provincial requirements, water quantity threats were not evaluated in this study.

Note: The following study findings provide information about the water supplying Ottawa's municipal intakes. These findings may not apply to water supplying private intakes in the area. Individuals on private intakes should contact staff for more information.

Map 1. Ottawa River Water Intakes overview



Ottawa Surface Water Study Findings

The Experts

For the Ottawa surface water study, steps 1 and 2 were completed for the City of Ottawa by water resource engineers and Geographic Information System (GIS) specialists at Baird & Associates (Baird) in the period from 2007 to 2009. Step 3 is currently being completed by Dillon Consulting Ltd. (Dillon). Steps 1 and 2 of the study were subject to peer review (independent third party review) and conform to the Assessment Report Technical Rules (dated November 16, 2009) issued under the *Clean Water Act*. The Technical Rules can be found at http://www.ene.gov.on.ca/en/water/cleanwater/cwa-technical-rules.php.

Step 1 – Delineate Intake Protection Zones

Methodology

An Intake Protection Zone (IPZ) is made up of three separate zones: IPZ-1, IPZ-2, and IPZ-3. Each zone represents varying degrees of vulnerability. These areas are adjacent to one another, but do not overlap. Baird undertook six steps to delineate the Intake Protection Zones for each of Ottawa's surface water intakes:

1. Collection and assembly of data and information:

   Baird collected relevant data and information from Federal, Provincial, Municipal, and other sources, relating to Ottawa's local hydrology and climate. This includes the generic regulation limit lines for the study area, as maintained by the Rideau Valley and Mississippi Valley Conservation Authorities. Baird also looked at the characteristics of the surface water intake and surrounding land use. In the summer of 2007, Baird conducted a hydrographic survey to map the riverbed topography from the Deschenes Rapids to the Chaudiere Dam. Current measurements were also carried out to develop a better understanding of the river flow conditions around the intakes.

2. Delineation of IPZ-1:

   Intake Protection Zone 1 is a zone around the raw water intake where it is assumed that if a spill were to occur, no dilution or attenuation would take place before the contaminant reached the intake. In the Technical Rules, the dimensions of IPZ-1 are prescribed as a semi-circle with a radius of 200m extending upriver and a rectangle with a length of 400 metres centered at the intake and extending 10m downriver of the intake. However, the Technical Rules also state that the dimensions of IPZ-1 may be modified to suite "local hydrodynamic conditions". For both the Britannia and Lemieux Island intakes, IPZ-1 was modified to be defined as a complete circle of radius 200 metres, rather than a semi-circle. This was done to allow for the potential influence of winds on surface currents in the vicinity of the intakes. As per the Technical Rules, a

setback of 120m was applied to the Lemieux Island IPZ-1 where the zone abutted land.

3. Development of a computer model:

   The second intake protection zone, IPZ-2, is based in part on the distance upstream from the intake that represents how long a particle takes to travel a minimum of two hours. To calculate this, experts use a computer model to determine how fast water flows towards the intake.

   Specifically, the datasets collected are used to develop a general understanding of the local surface water system. Then, an appropriate surface water computer model is chosen to suit the conditions being modelled. A numerical model is a set of mathematical equations, usually held within a computer program, which is used to represent how surface water behaves in the physical environment (or 'hydraulic setting').

   For both the Britannia and Lemieux Island intakes, Baird used the *MIKE21* model to first refine the river's bathymetry (the picture of the terrain of the river bed), and then their own in-house model, *MISED*, to delineate the in water portion of IPZ-2. MISED is a three-dimensional numerical model that has the ability to handle the accelerated current speeds that occur in rapids. The MISED model was validated against measured current data collected by Baird in August 2007, and then utilized to determine the current patterns in the river and around the intakes.

4. Delineation of the In-River Portion of IPZ-2:

   The model described in step (3) was subsequently used to determine the upper limits of IPZ-2 within the Ottawa River based on a specified "time of travel" within the river (i.e. the duration required for surface water to travel to the intake). Under the provincial Technical Rules, the required time of travel must be equal to or less than the time that is sufficient to allow operators to shut down the water treatment plant in the event of a spill, or 2 hours, whichever is greater. Since the Britannia and Lemieux Island plants both take less than 5 minutes to shut down, the time of travel was set to the minimum 2 hour limit.

5. Delineation of the On-Land Portion of IPZ-2:

   To complete the delineation, the outer boundaries of the zone (along the edges of the river) need to be set. According to the Technical Rules, the outer boundary of IPZ-2 is a setback of 120 metres from the high water mark, or the generic regulation limits line (as developed and maintained by the RVCA and MVC), whichever is greater.

   Also included in IPZ-2 are any storm sewer areas that discharge into the river within the 2 hour time limit. For both Britannia and Lemieux Island, the inland portion of IPZ-2 is governed by storm sewer systems. The distances inland were calculated using established hydraulic formulations based on flows through the sewer pipe network. For nearby tributaries, the distance upstream was also calculated using an established hydrological formula.

   So, to complete IPZ-2, the in-river portion of IPZ-2 (step 4) was combined with the 120 metre setback and/or regulation limit lines from the RVCA and MVC, along with any nearby storm sewer areas.

6. Delineation of IPZ-3:

   For intakes located on inland rivers other than the Ottawa, the standard approach is to buffer all rivers, streams, and lakes upstream of the intake by 120 metres, or the generic regulation limit line. As per the Technical Rules, however, this approach does not apply to intakes on the Ottawa River. Instead, the Province has prescribed an event-based approach (EBA) that considers the dispersion of a contaminant spill within the watershed. The EBA results in the delineation of an IPZ-3 that includes areas beyond IPZ-1 and IPZ-2 that could contribute contaminants to the intake in the case of an extreme weather event.

   The first step in the EBA is to delineate an IPZ-3 based on considerations of extreme flow event conditions, and an understanding of how contaminants may be transported to the intake. The EBA then allows activities to be identified as a significant drinking water threat if it can be shown through modeling that a release of a specific contaminant from an activity would result in an issue at the intake. Potential contaminant spill threats were identified. Due to the large dilution potential of the Ottawa River, it was considered that only catastrophic large-volume chemical release would have a potential impact at the intakes. Thus, the "worst case" scenarios would result from spills on transportation corridors, such as rail and road crossings on the key waterways. Approximately sixty-five road crossings and ten rail crossings were identified.

   Using different spill scenarios, the concentrations at the Britannia and Lemieux Island drinking water intakes were estimated. The calculations started with potential spill sites at the Ottawa River then proceeded up each major tributary until the point at which no significant impact on drinking water was found.

7. Assessment of Transport Pathways:

   A ‘transport pathway’ is a flow route that provides a direct way for contaminants to enter surface water. These may be constructed features, like drainage ditches, tile drains and roadways, or natural streams and creeks, which drain directly into the source water. Since these structures can drain water from a larger area than surface water courses alone, the Intake Protection Zones were expanded to include them.

   So, the final step in the delineation process is to expand IPZ-2 and IPZ-3 zones if transport pathways are present. Using available information, Baird completed this work for Ottawa’s IPZ-2 zones; this is discussed under step (4).

Québec and the Ottawa IPZ-2 Delineation

Although the source protection region does not extend across the provincial border, sufficient information was obtained from Ville de Gatineau that permitted a preliminary assessment of the delineation of IPZ-2 into Quebec. The preliminary IPZ-2 shown for Quebec is for information purposes only. There will be no further technical assessment undertaken as part of source protection planning in the Ville de Gatineau.

Chalk River and the Ottawa IPZ-3 Delineation

The Chalk River Nuclear Laboratory is situated on the Ottawa River approximately 180 km upriver of the City of Ottawa. In December of 1988, a spill occurred at the facility that eventually reached the Ottawa intakes approximately 16 days later with peak concentrations observed at the Britannia WPP 23 days later. Although no drinking water standards were exceeded, any future changes to provincial standards could have implications on the safety of Ottawa's drinking water. The Technical Rules state that IPZ-3 is to terminate at the edge of the Source Protection Region; a secondary IPZ-3 was extended beyond the Source Protection Region to Chalk River for information purposes. At this time, there will be no further technical assessment undertaken as part of source protection planning outside of the Source Protection Region.

Results – Ottawa Intake Protection Zones

Map 2 shows the components used in the delineation of Ottawa's Britannia IPZ-1 and IPZ-2. The map displays the generic regulation limit line, the default delineations based on the Technical Rules, and the modifications made to accommodate transport pathways.

Map 3 presents the draft delineation of the Britannia IPZ-1 and IPZ-2 zones. The IPZ-1 and IPZ-2 zones cover approximately 0.13 km^2 and 29 km^2.

Map 4 shows the draft delineation of the Britannia IPZ-1 and IPZ-2 zones including the Quebec side of the Ottawa River.

Map 5 gives the extent of IPZ-3 within the Source Protection Region for the Britannia intake. The total area of this zone is approximately 381 km^2.

Map 6 shows the extent of IPZ-3 if the Chalk River nuclear facility were to be considered. The total area of this zone is 634 km^2.

Map 7 shows the components used in the delineation of Ottawa's Lemieux Island IPZ-1 and IPZ-2. The map displays the generic regulation limit line, the default delineations based on the Technical Rules, and the modifications made to accommodate transport pathways.

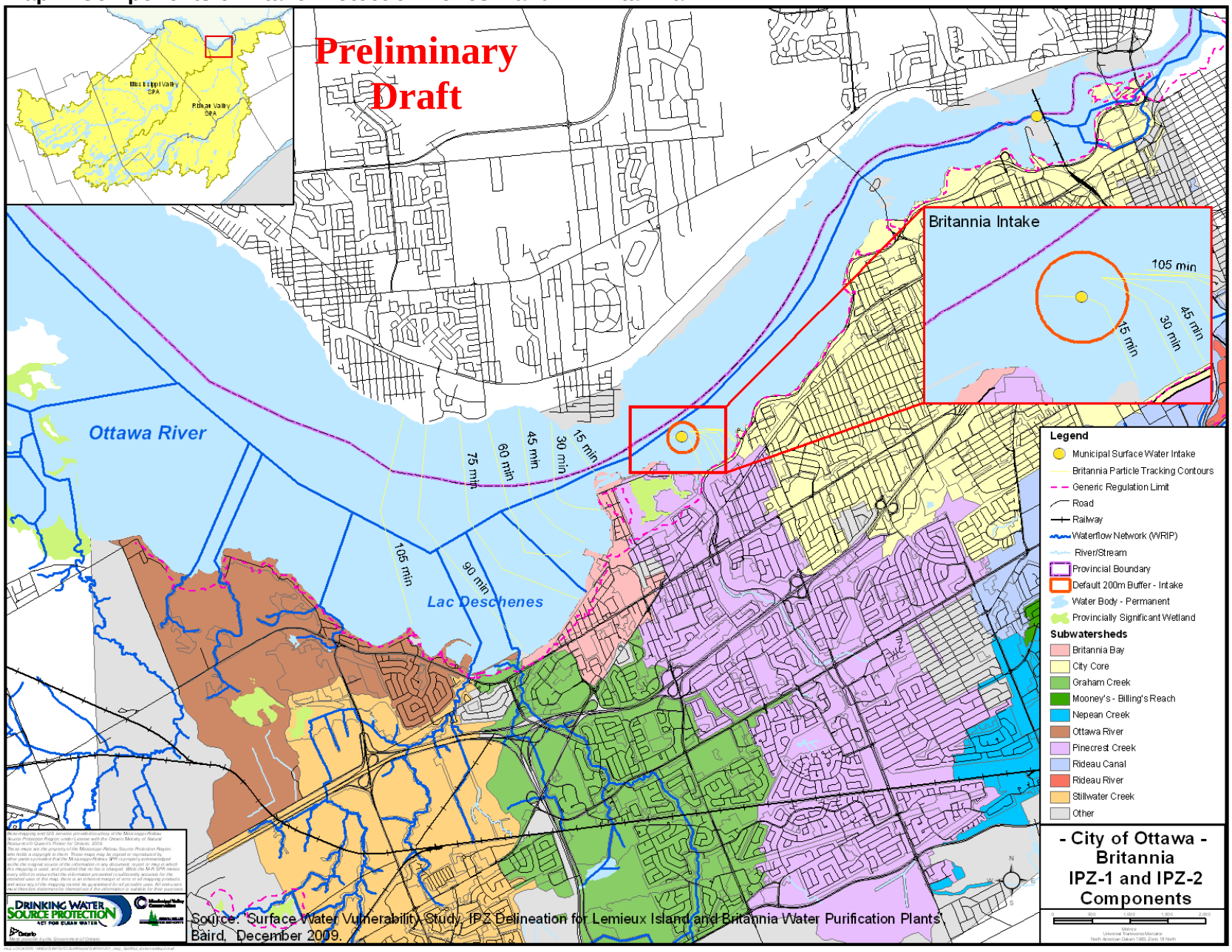
Map 8 presents the draft delineation of the Lemieux Island IPZ-1 and IPZ-2 zones. The IPZ-1 and IPZ-2 zones cover approximately 0.12 km^2 and 12.3 km^2.

Map 9 shows the draft delineation of the Lemieux Island IPZ-1 and IPZ-2 zones including the Quebec side of the Ottawa River.

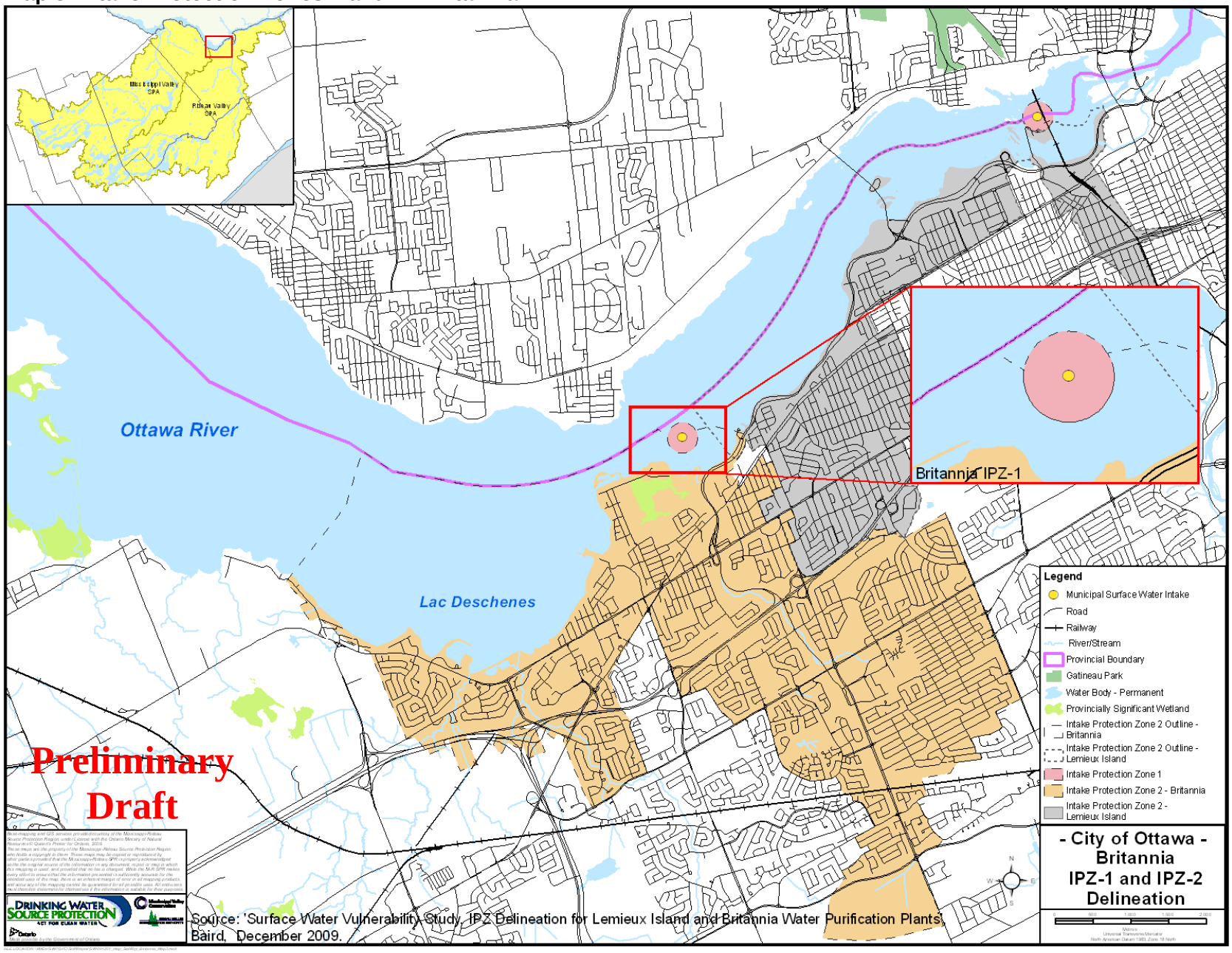
Map 10 gives the extent of IPZ-3 within the Source Protection Region for the Lemieux island intake. The total area of this zone is approximately 426 km^2.

Map 11 shows the extent of IPZ-3 if the Chalk River nuclear facility were to be considered. The total area of this zone is 679 km^2.

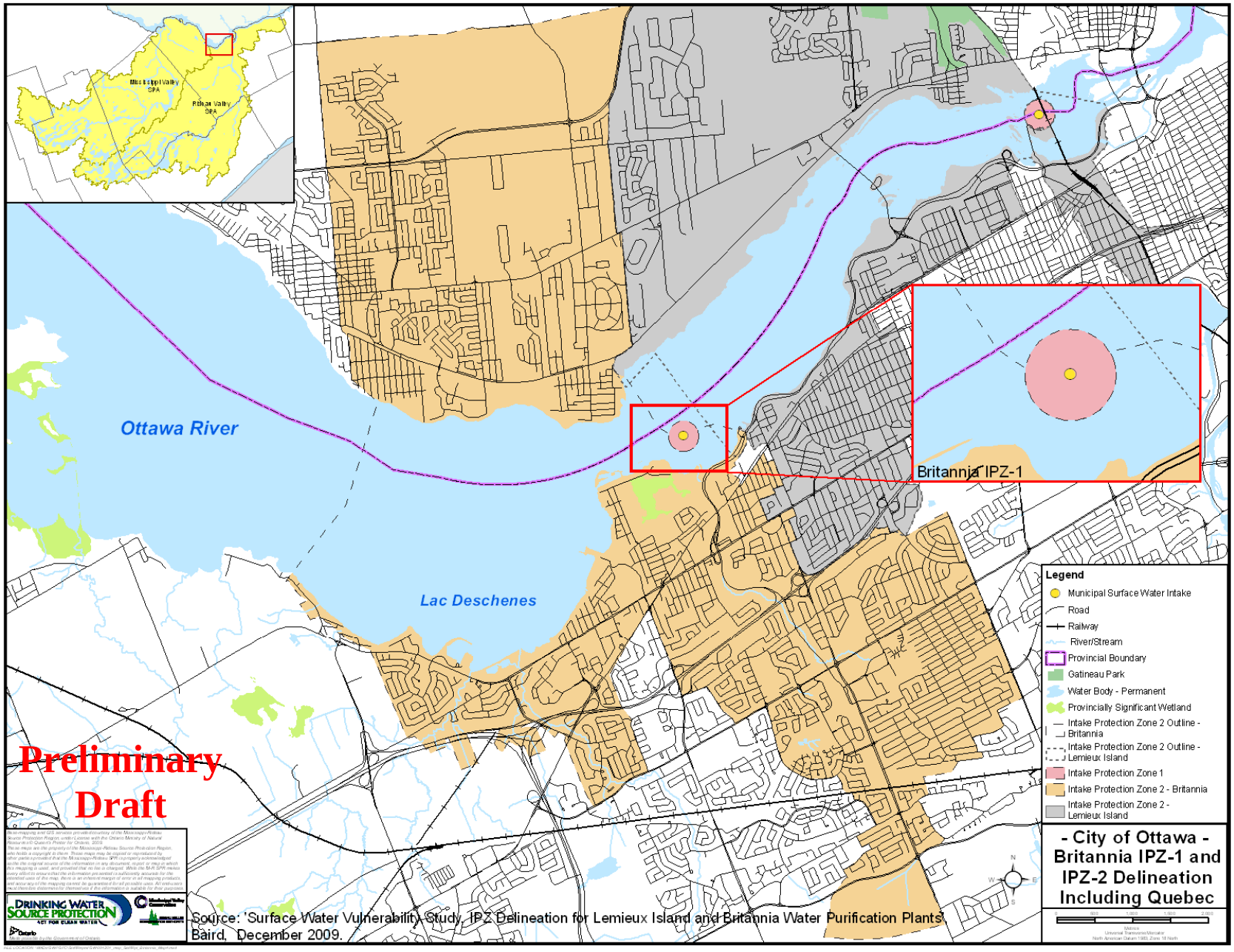
Map 2. Components of Intake Protection Zones 1 and 2 - Britannia



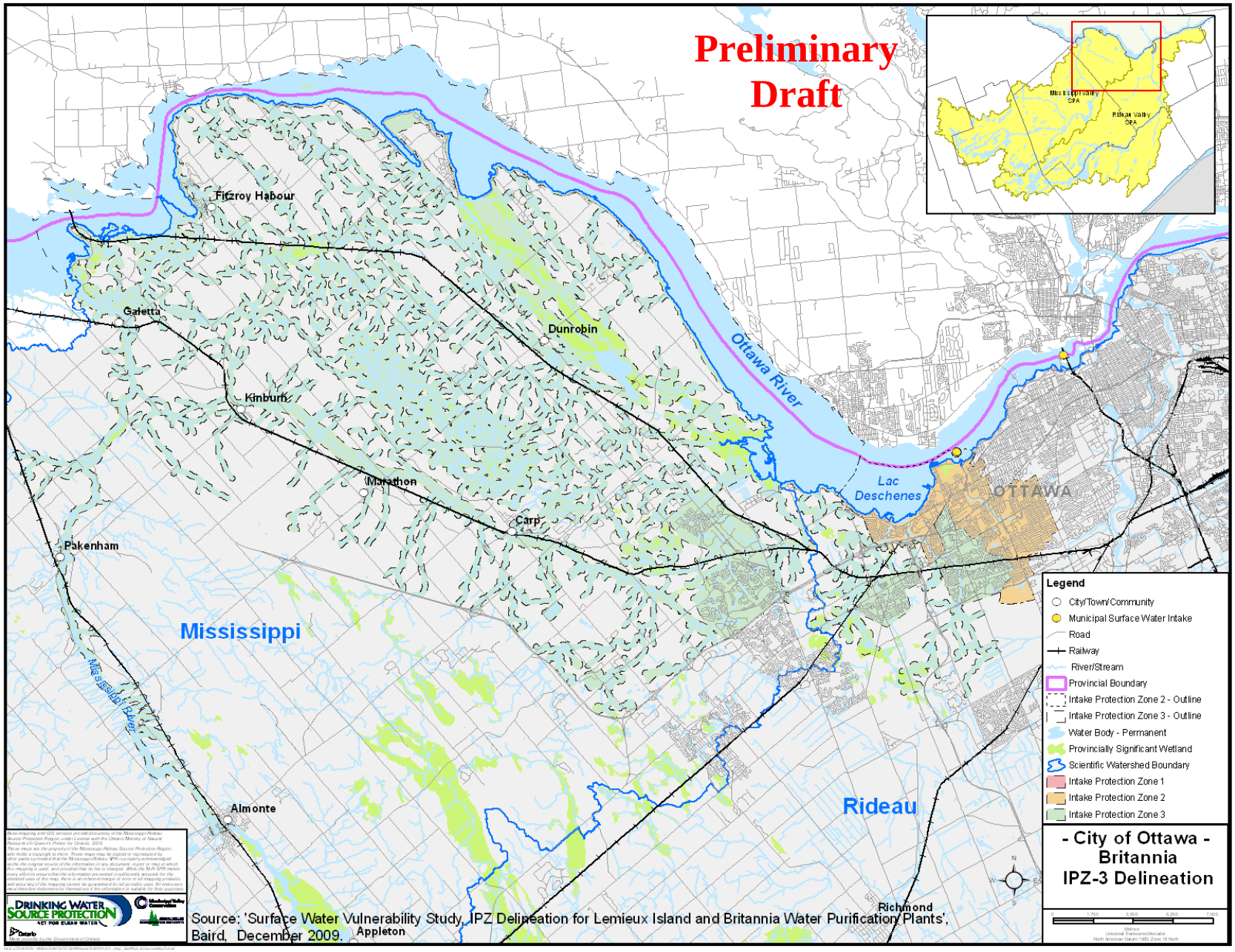
Map 3. Intake Protection Zones 1 and 2 - Britannia



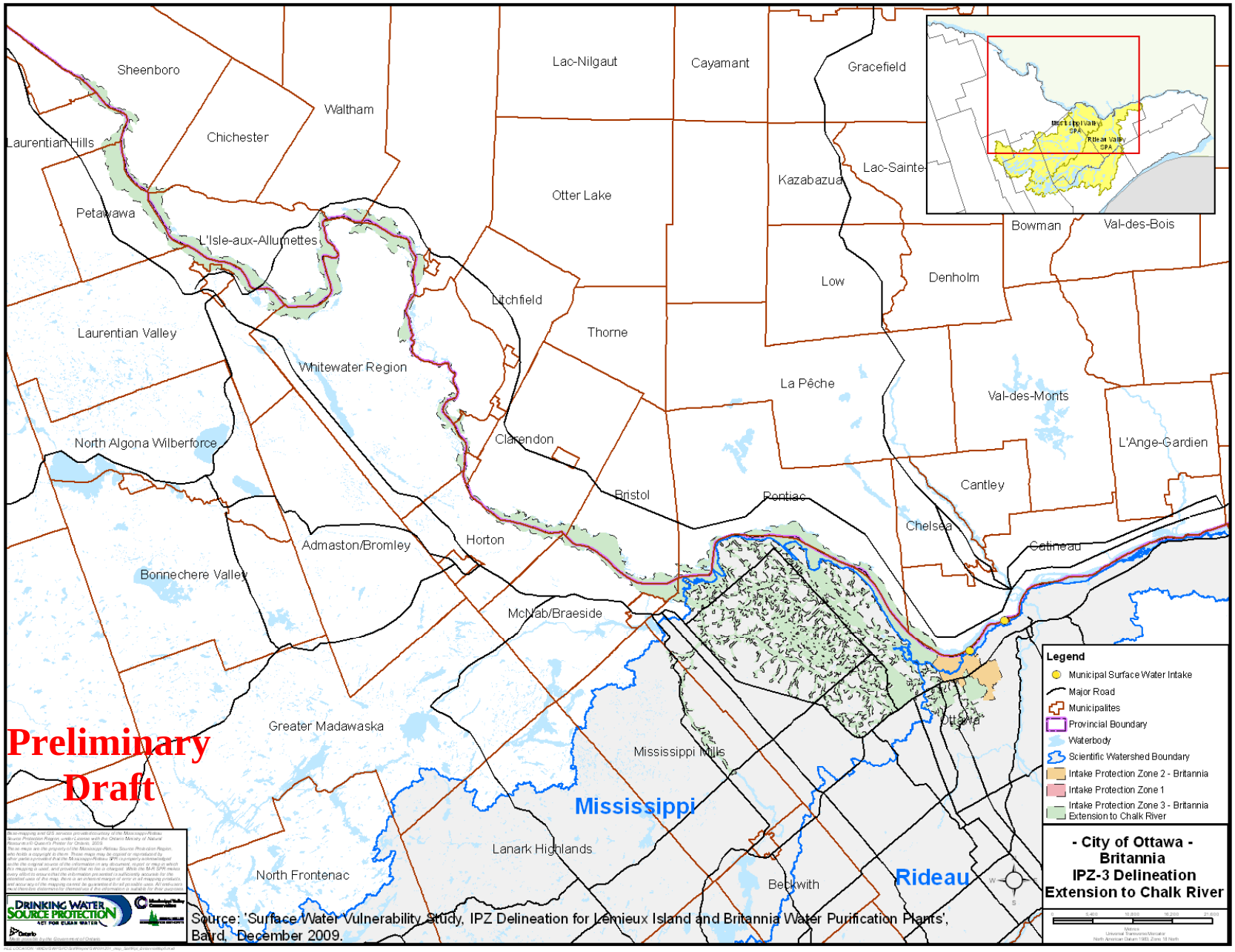
Map 4. Intake Protection Zones 1 and 2 – Britannia including Quebec



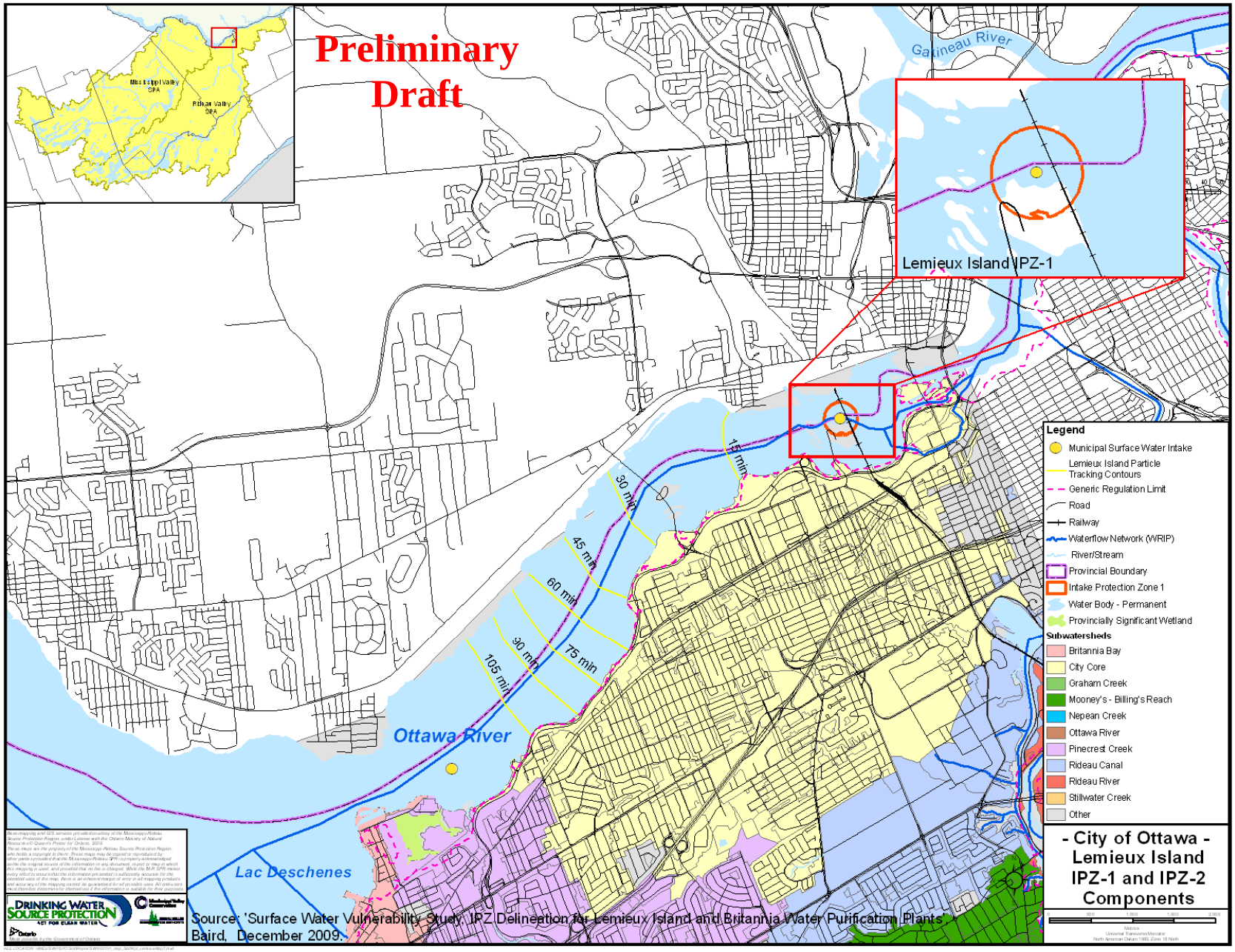
Map 5. Intake Protection Zone 3 - Britannia



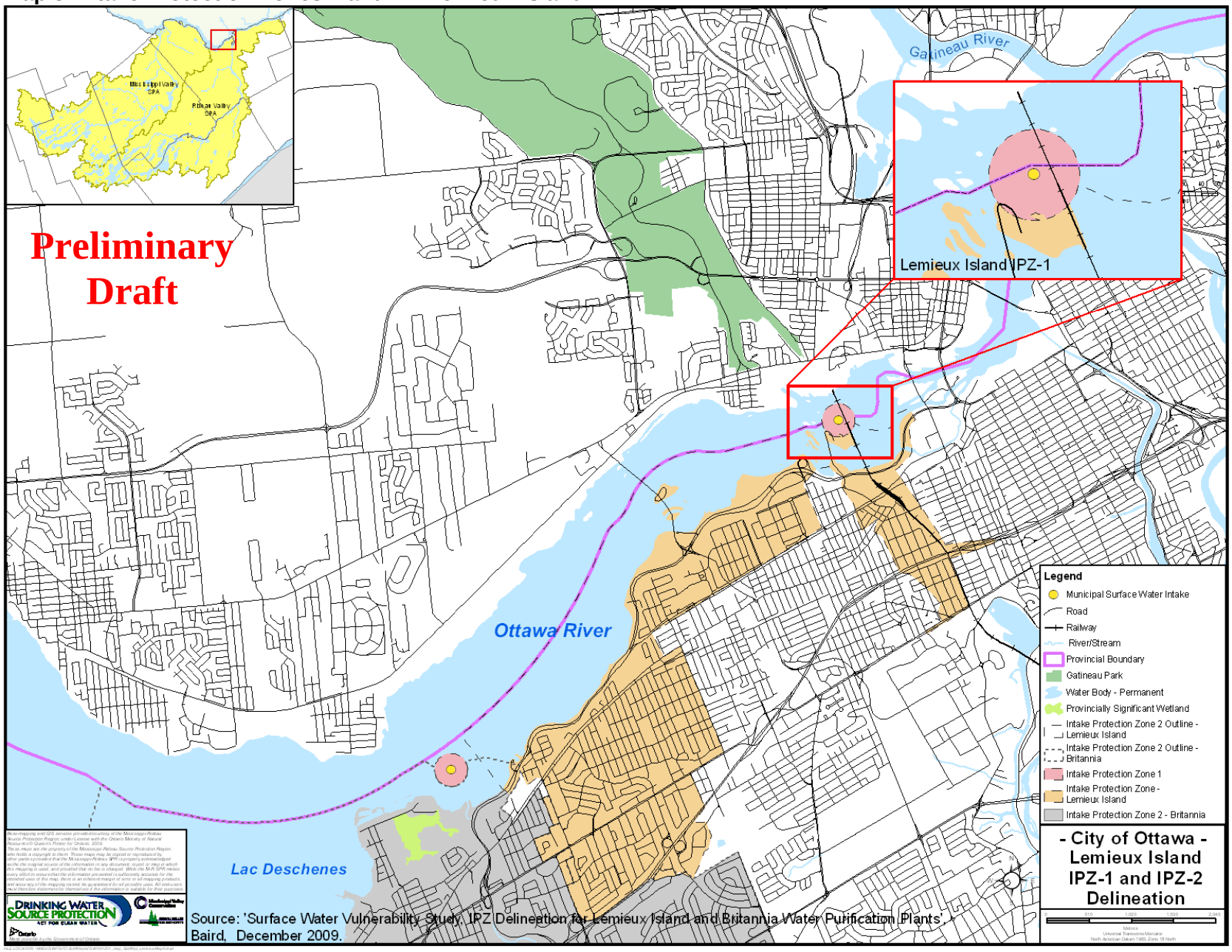
Map 6. Intake Protection Zone 3 – Britannia extended to Chalk River



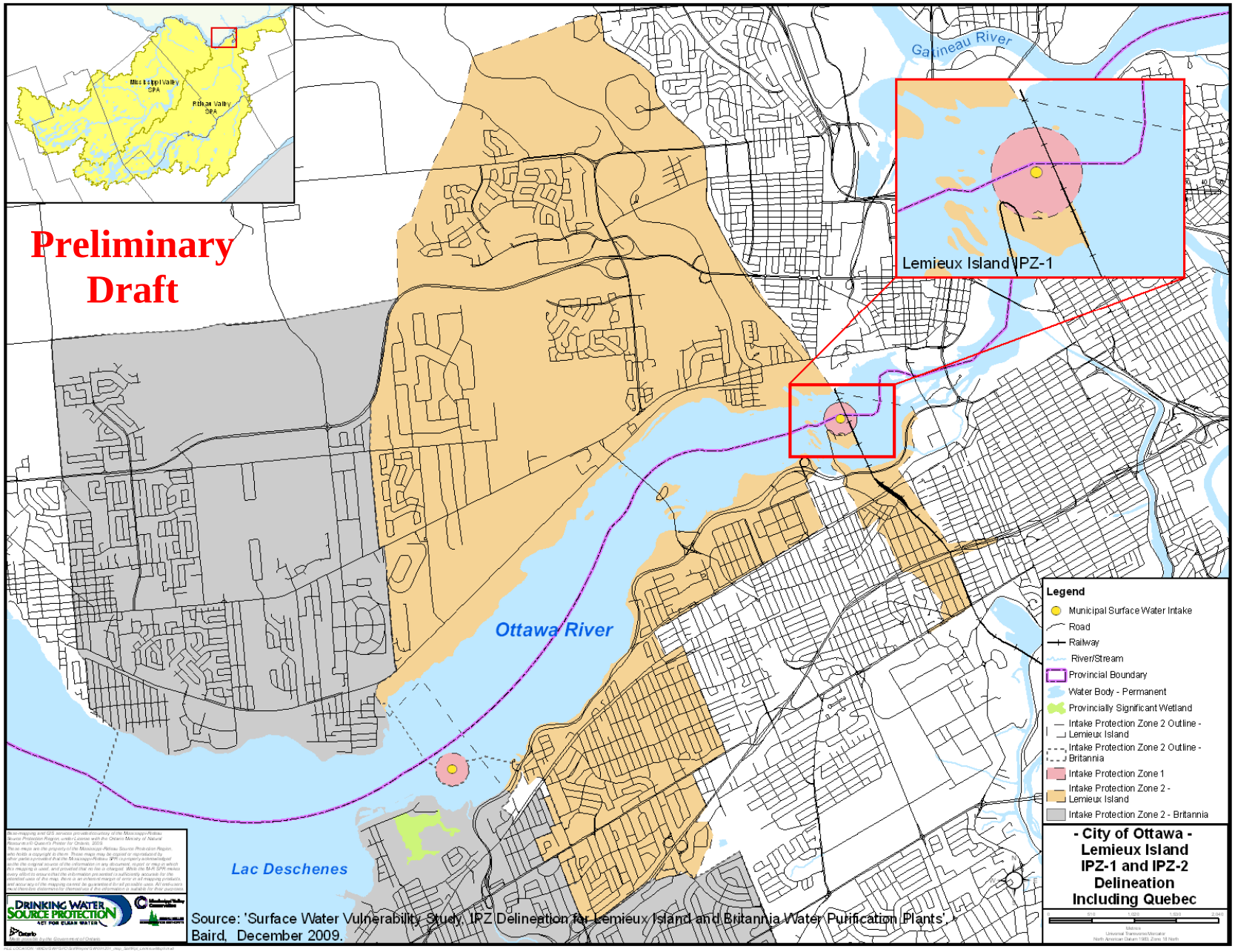
Map 7. Components of Intake Protection Zones 1 and 2 – Lemieux Island



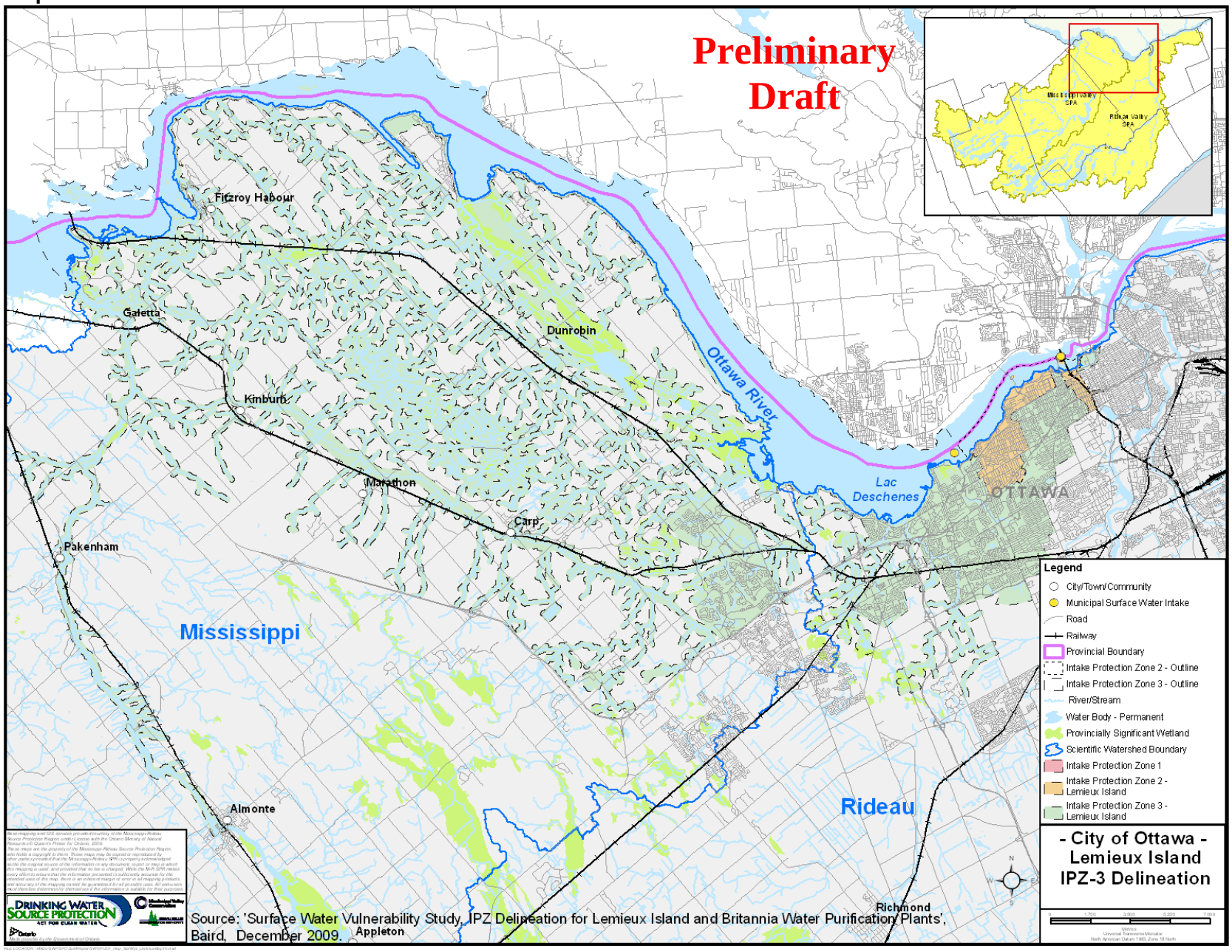
Map 8. Intake Protection Zones 1 and 2 – Lemieux Island



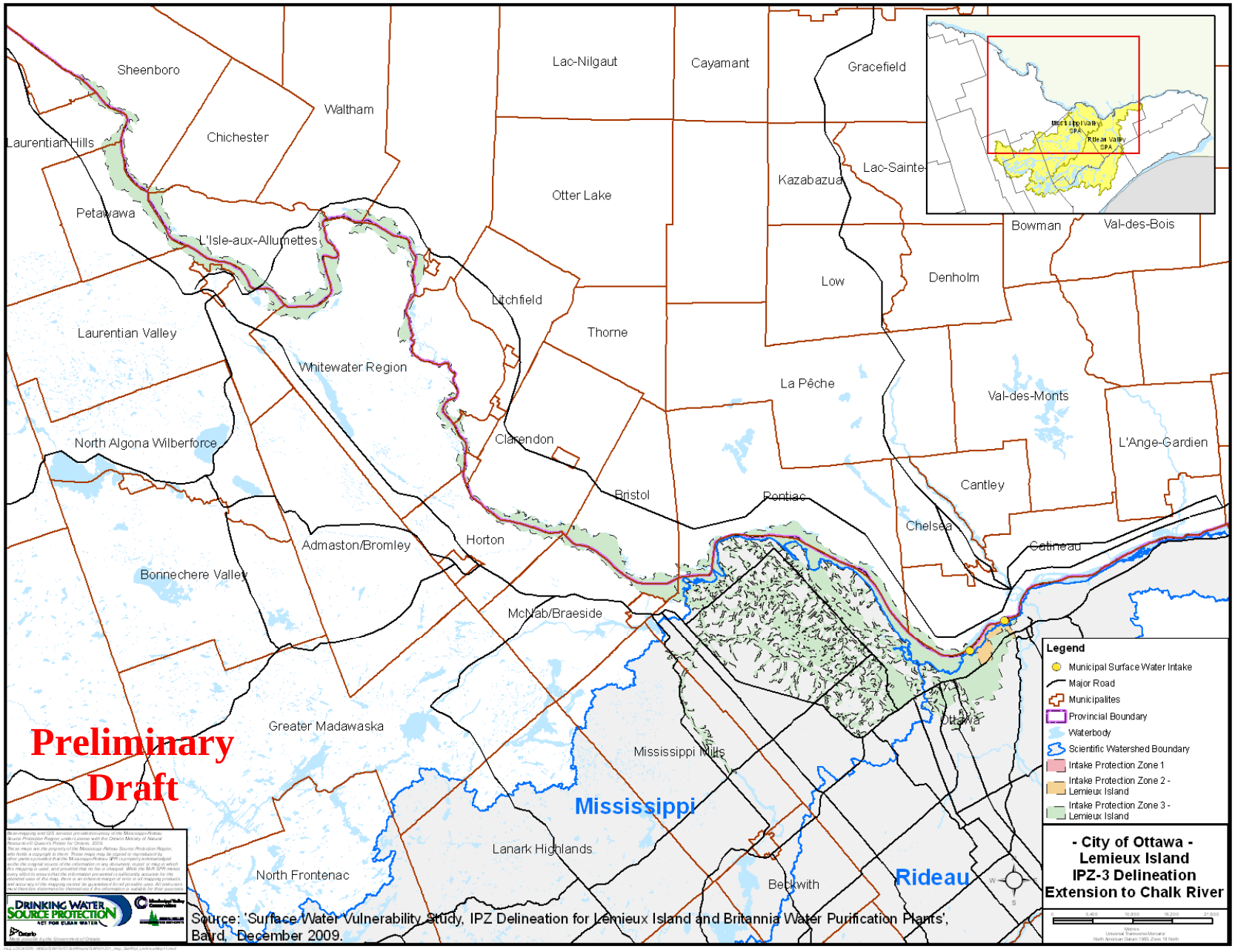
Map 9. Intake Protection Zones 1 and 2 – Lemieux Island including Quebec



Map 10. Intake Protection Zone – Lemieux Island



Map 11. Intake Protection Zone 3 – Lemieux Island extended to Chalk River



Step 2 – Assess Vulnerability

Once the intake protection zones are delineated, the next step is to assess how susceptible the surface water in these zones is to contamination. An assessment of the surface water vulnerability within the intake protection zones is done in order to identify areas where extra care is needed to protect the water supply.

The provincial Technical Rules set out a process for assessing the vulnerability for each intake protection zone. The final score is based on the following equation:

$$V = B \times C$$

Where:

B is the area vulnerability factor

C is the source vulnerability factor

V is the vulnerability score

These components and how they are assigned are described below.

Methodology

1. Assigning the Area Vulnerability Factor:

   The first step in the evaluation of surface water vulnerability is to assign an 'area vulnerability factor', or **B**, for each intake protection zone. B must be a whole number (no decimal points), and can range from 1 to 10, with 10 being most vulnerable. Table 1, below, shows the range of vulnerability scores possible for each intake protection zone.

   - **IPZ-1**: This zone is closest to the intake and encompasses the area of water and land to which the intake is most vulnerable. It is assumed that if contaminants were released within IPZ-1 they would not be diluted or filtered before reaching the intake, therefore, the area vulnerability factor for IPZ-1 is always **10**.
   - **IPZ-2**: Under the provincial Technical Rules, the area vulnerability factor for IPZ-2 can be 7, 8, or 9. One score must be assigned to the whole zone and the following factors must be taken into consideration:
     1) *Percentage of area of IPZ-2 that is land.* This factor reflects the potential for a spill to occur that may impact the intake.
     2) *The land cover, soil type, permeability of the land and the slope of the land.*
     3) *The hydrological and hydrogeological conditions.* This factor reflects the extent of the transport pathways and sewer systems that may exist in the zone.

The area factor (B) for IPZ-2 at the Britannia and Lemieux Island Water Purification Plants were established based on a weighted combination of the criteria presented above. The following outlines the specific information that was used in the analysis to quantify each criteria:

- *Percentage of Area Composed of Land*
- *Type of Land Use*
- *% Imperviousness of the Land*
- *Extent of Transport Pathways*

The relationships and scoring categories that were developed for each criteria that was considered in the analysis required some assumptions to be made in order to quantify a range in the vulnerability experienced locally in the study region. Tables 1 and 2 below summarizes the derivation of the IPZ-2 area vulnerability factor (B) for Britannia and Lemieux Island WPP.

Table 1 Summary of Scoring for the IPZ-2 Area Vulnerability Factor at Britannia WPP

Parameter	Value	B_{area}	B_{land}	B_{imp}	B_{TP}
Percentage Land Area (B_{Area})	73	8.6			
Type of Land Use (B_{land})	Developed		9.0		
% Imperviousness (B_{imp})	34%			7.9	
Percentage of Land Area Drained by Storm Sewer (B_{TP})	>50%				9.0
Assumed Weighting Factor		1/3	1/6	1/6	1/3
Weighted Factor	**8.66**				
Selected Area Factor	**9**				

Table 2 Summary of Scoring for the IPZ-2 Area Vulnerability Factor at Lemieux Island WPP

Parameter	Value	B_{area}	B_{land}	B_{imp}	B_{TP}
Percentage Land Area (B_{Area})	55	8.1			
Type of Land Use (B_{land})	Developed		9.0		
% Imperviousness (B_{imp})	42%			8.1	
Percentage of Land Area Drained by Storm Sewer (B_{TP})	>50%				9.0
Assumed Weighting Factor		1/3	1/6	1/6	1/3
Weighted Factor	**8.55**				
Selected Area Factor	**9**				

Each criteria were scored and an weighted average approach was used in the calculation. The area factor (B) was calculated to be 9 for both the Britannia and Lemieux Island WPP. Given that the on-land portion of IPZ-2 is located with an urban residential area drained by an extensive storm sewer network, it is not surprising that the highest vulnerability would be assigned to IPZ-2.

- **IPZ-3**: The area vulnerability factor for IPZ-3 is defined based on proximity to the intake as well as the same three factors considered for IPZ-2. Unlike IPZ-2, the area vulnerability factor for IPZ-3 may differ by location. According to the provincial Technical Rules, no factor can be higher than the one assigned to IPZ-2.

2. Assigning the Source Vulnerability Factor:

   The second step is to assess the 'source vulnerability factor', or **C**. This is an assessment of the location of the surface water intake and how vulnerable it is to the impact of contaminants. For a Type C intake (an intake on an inland river such as the Ottawa), **C** must be either **0.9** or **1.0**. The selected value was based on:

   - the depth of the intake below the water surface (the deeper the intake, the lower the vulnerability);
   - the distance of the intake from land (the further away from shore, the lower the vulnerability);
   - the number of recorded drinking water quality issues at the intake, if any;

Each of these criteria were weighted equally. Similar to the area factor (B), the relationships and categories used to bracket the range in vulnerability were based on typical conditions that may exist locally. Tables 3 and 4 below

summarizes the derivation of the source vulnerability factor (C) for Britannia and Lemieux Island WPP.

Table 3 Summary of Scoring for the Source Vulnerability Factor at Britannia WPP

Parameter	Value	C_{depth}	C_{Dist}	C_{DWI}
Depth of Intake (m)	7	0.96		
Distance from the River Bank (m)	300		0.97	
Drinking Water Issues	none			0.9
Assumed Weighting Factor		0.333	0.333	0.333
Weighted Factor	**0.943**			
Selected Source Factor	**0.9**			

Table 4 Summary of Scoring for the Source Vulnerability Factor at Lemieux WPP

Parameter	Value	C_{depth}	C_{Dist}	C_{DWI}
Depth of Intake (m)	6	0.97		
Distance from the River Bank (m)	450		0.96	
Drinking Water Issues	none			0.9
Assumed Weighting Factor		0.333	0.333	0.333
Weighted Factor	**0.943**			
Selected Source Factor	**0.9**			

The source factor (C) was calculated to be 0.9 for both the Britannia and Lemieux Island WPP. It is noted that both intakes are located away from the river bank in water depths greater than 6 metres and that historically, the water quality at both intakes has been very good.

Table 5, below, displays the range of B and C values that are allowed, and then the values as assigned for the Ottawa's Lemieux Island and Britannia intake protection zones.

3. Calculating IPZ Vulnerability Scores:

Once the source and area vulnerability factors have been finalized, the final step is to complete the calculation of the final vulnerability scores, according to the prescribed equation. Table 5 summarizes the vulnerability score (V) for both the Britannia and Lemieux Island WPP.

Table 5. IPZ Vulnerability Scores and Modifiers – Type C

				Source Vulnerability Factor (C)	**Vulnerability Score (V)** *Expressed to one decimal point or as whole number depending on the value of C*		
Zone:	**IPZ-1**	**IPZ-2**	**IPZ-3**		**IPZ-1**	**IPZ-2**	**IPZ-3**
Possible Values:	*10*	*7 to 9*	*1 to 9*	*0.9 or 1*	*9 or 10*	*6.3 to 9*	*0.9 to 9*
Lemieux Island Scores:	**10**	**9**	**1 to 8**	**0.9**	**9**	**8.1**	**Variable**
Britannia Scores	**10**	**9**	**1 to 8**	**0.9**	**9**	**8.1**	**Variable**

Results – Ottawa Vulnerability Scores

Map 12 shows the final vulnerability scoring for Ottawa's Britannia intake IPZ-1 and IPZ-2.

Map 13 gives the final vulnerability scoring for Ottawa's Britannia Intake IPZ-3.

Map 14 shows the final vulnerability scoring for Ottawa's Lemieux Island intake IPZ-1 and IPZ-2.

Map 15 presents the final vulnerability scoring for Ottawa's Lemieux Island Intake IPZ-3.

Note that vulnerability scoring was not carried out for the Quebec side of the river.

Step 3 – Identify Threats and Issues for Water Quality

Once experts determine where a drinking water supply is vulnerable to contamination, they need to identify what land use activities could pose a contamination risk in those areas (threats). Experts also need to identify any existing water quality problems (issues) and link them back to the land use(s) causing the contamination.

(1) **Threats** are existing conditions (i.e., contaminated sediment, soil or groundwater) or existing or future land use activities that could contaminate a drinking water supply;

(2) **Issues** are documented cases of water quality contamination approaching or exceeding acceptable provincial levels. While some issues are naturally occurring, many are caused by an existing or historic land use activity.

For the Ottawa River intakes, there are three possible approaches for identifying drinking water threats:

3a) Threats Approach

In this approach, the Assessment Report Technical Rules identify the three ways that a water quality threat can be identified:

I. Through an activity prescribed by the Clean Water Act;

II. Through an activity identified by the Source Protection Committee; and

III. Through a condition resulting from past activities.

I. Activities Prescribed by the Clean Water Act

Before threats could be identified, the province had to decide what activities pose a threat, and to what extent. Section 1.1 of Ontario Regulation 287/07 (made under the Clean Water Act) lists 21 broad land use activities as '*prescribed drinking water threats*'. These 21 activities are listed in Table 2 below, and they cover both chemical contaminants and pathogenic bacteria.

The province then broke each of the 21 broad activities into various scenarios called *circumstances* (e.g. activity A involving the storage of chemical X in an above ground storage tank greater than 50,000 litres). There are 500 pages of specific circumstances in the provincial Technical Rules and they are divided into two tables – chemical threats and pathogenic threats. The tables of drinking water threats can be found at:

http://www.ene.gov.on.ca/en/water/cleanwater/cwa-technical-rules.php

These tables identify if a circumstance is a 'significant', 'moderate', or 'low' risk in each vulnerability score (2, 4, 6, 8 and 10). For example, a circumstance may be

a *significant* risk in an area with a vulnerability score of 10, and a *moderate* risk in an area with a vulnerability score of 8.

Note: There are two prescribed drinking water threats (numbers 19 and 20) that pertain to water *quantity* threats. These will be evaluated as part of a water budget study currently underway.

Methodology

1. List low, moderate, and significant risks:

   Using the threats tables, the first step is to list all land use activities (circumstances) that pose a low, moderate, and significant risk to the surface water supplying Ottawa's municipal intake (based on the vulnerability scores in the IPZ). This is simply a summary of the provincial drinking water threats tables, it does not reflect what activities are actually taking place in the IPZ (see step 2).

   Under the province's threats tables, a land use activity can only be a *significant risk* if it is in an area that has a vulnerability score of **8, 9** or **10**. Table 2 shows, for each vulnerability score, which of the 21 prescribed drinking water threats have circumstances that pose a significant risk. The table shows that the majority of threats must occur in areas with a vulnerability score of **9 or 10** to be classed as significant, and only two can be significant in areas with a vulnerability score of **8**.

   Attached to this document is a complete list of the threats circumstances that can be classed as significant in an IPZ. This table is a *subset* of the full provincial drinking water threats tables.

2. Inventory existing significant risks:

   Under the Technical Rules, Dillon must use the list of potential significant risks and count how many of those land uses are taking place on the ground.

   Dillon is using air photos, commercial databases, and roadside observations, to develop an inventory of locations that may have significant risks within the Lemieux Island and Britannia IPZs.

3. Confirm inventory of significant risks:

   It is impossible to know the details of a particular land use activity without seeking additional information from the property owner. This information would include details about specific practices and contaminants in use. This detailed information is required to confirm if a land use activity is a significant risk or not.

   Dillon will not be approaching property owners for additional information in the Mississippi-Rideau region. The inventory of existing significant risks will be compiled based on the information available about local land use activities. Property owners wishing to confirm whether or not they are a significant risk

are encouraged to contact staff who will work with them to collect the necessary information to make such a determination.

II. Activity identified by the Source Protection Committee

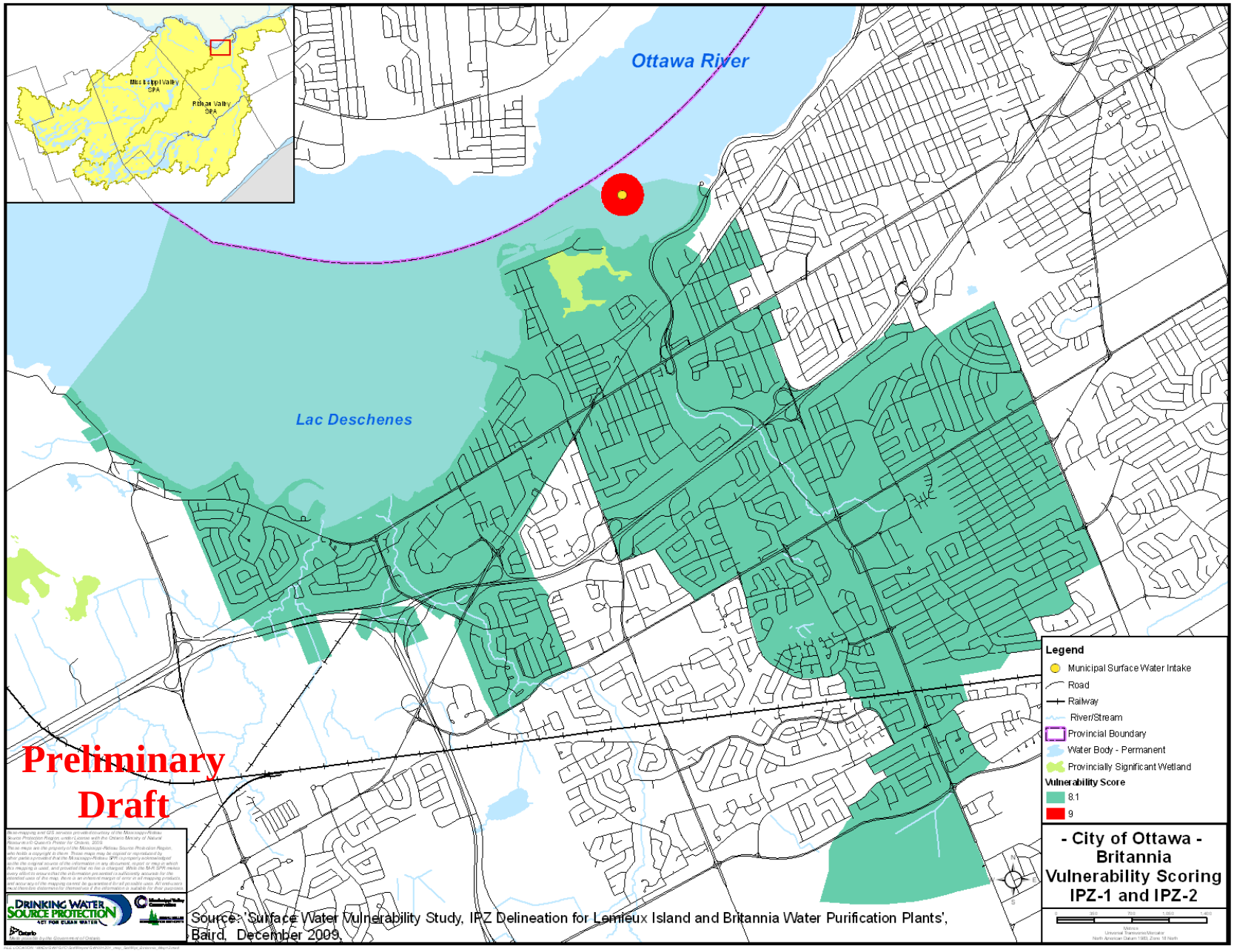
A drinking water threat can be identified by the Source Protection Committee if the activity is not included in the provincial list of 21 prescribed drinking water threats. This can only occur if a hazard assessment confirms that the activity is a threat, and this assessment is approved by the MOE.

III. Through a condition resulting from past activities.

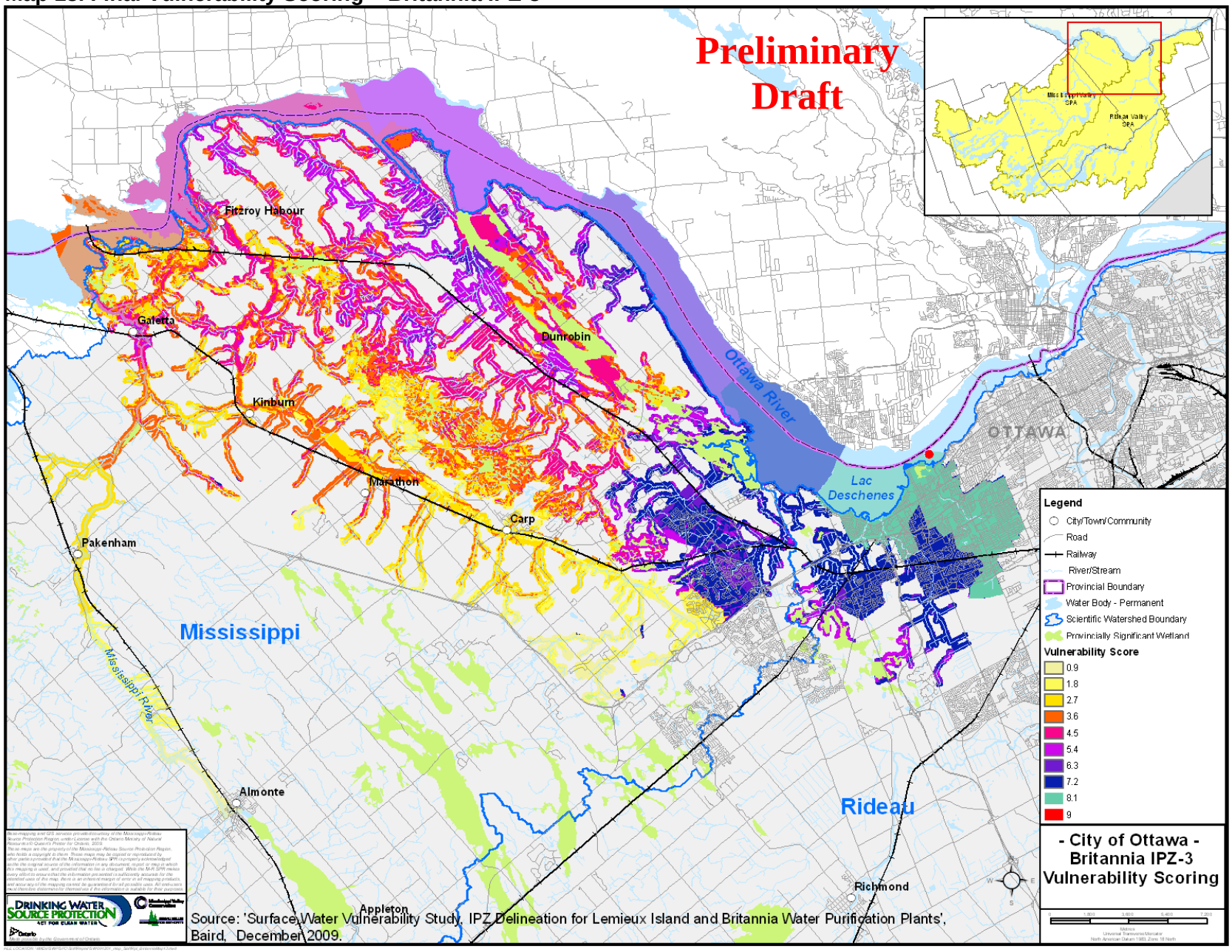
Threats can also be identified if conditions relating to a past activity (i.e. a contaminated site) have resulted in:

- the presence of contamination in sediment;
- the presence of non-aqueous phase liquid (i.e., gasoline) in groundwater;
- the presence of a single mass of 100 litres of dense non-aqueous phase liquids in surface water.

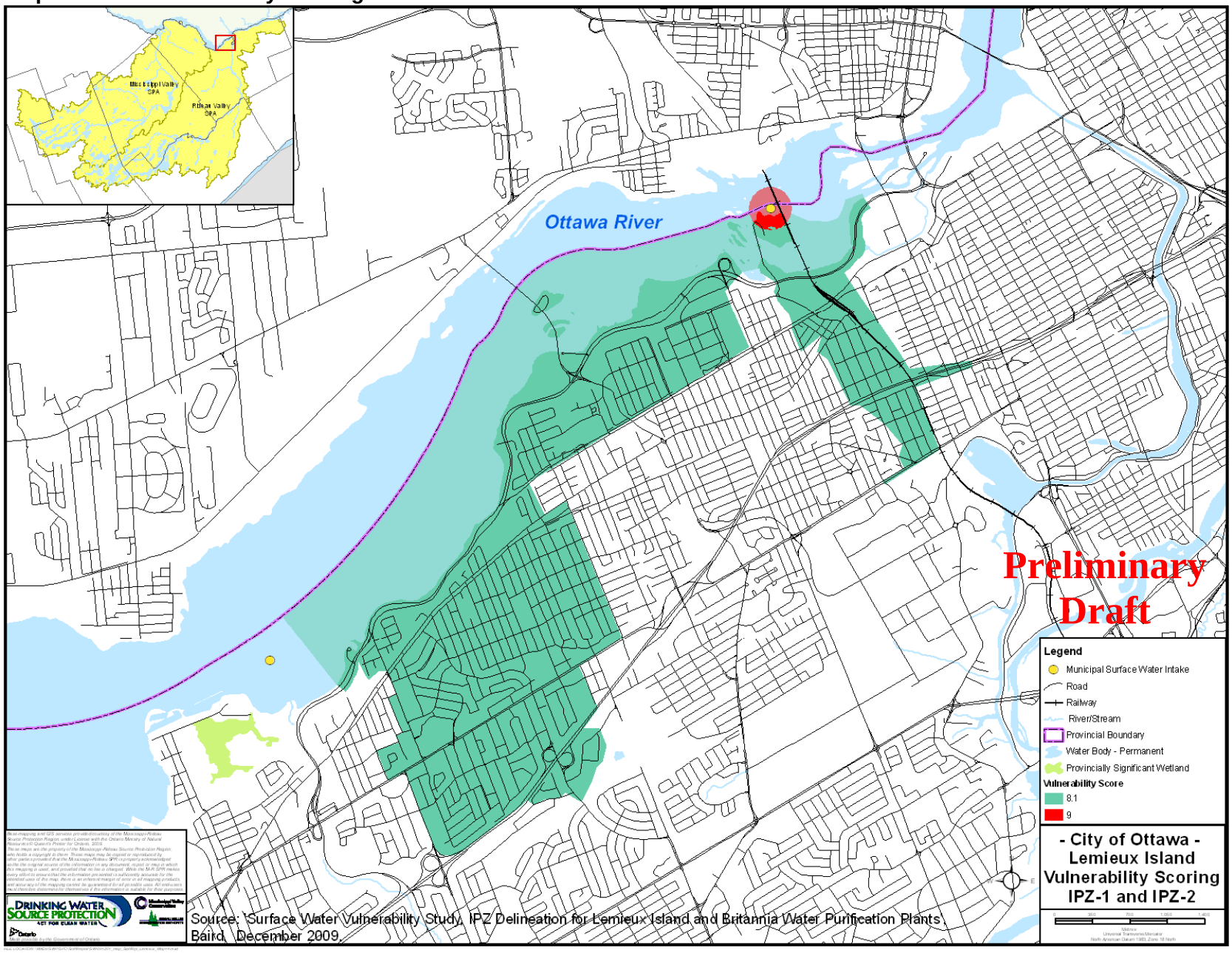
Map 12. Final Vulnerability Scoring – Britannia IPZ-1 and IPZ-2



Map 13. Final Vulnerability Scoring – Britannia IPZ-3



Map 14. Final Vulnerability Scoring – Lemieux Island IPZ-1 and IPZ-2



Map 15. Final Vulnerability Scoring – Lemieux Island IPZ-3

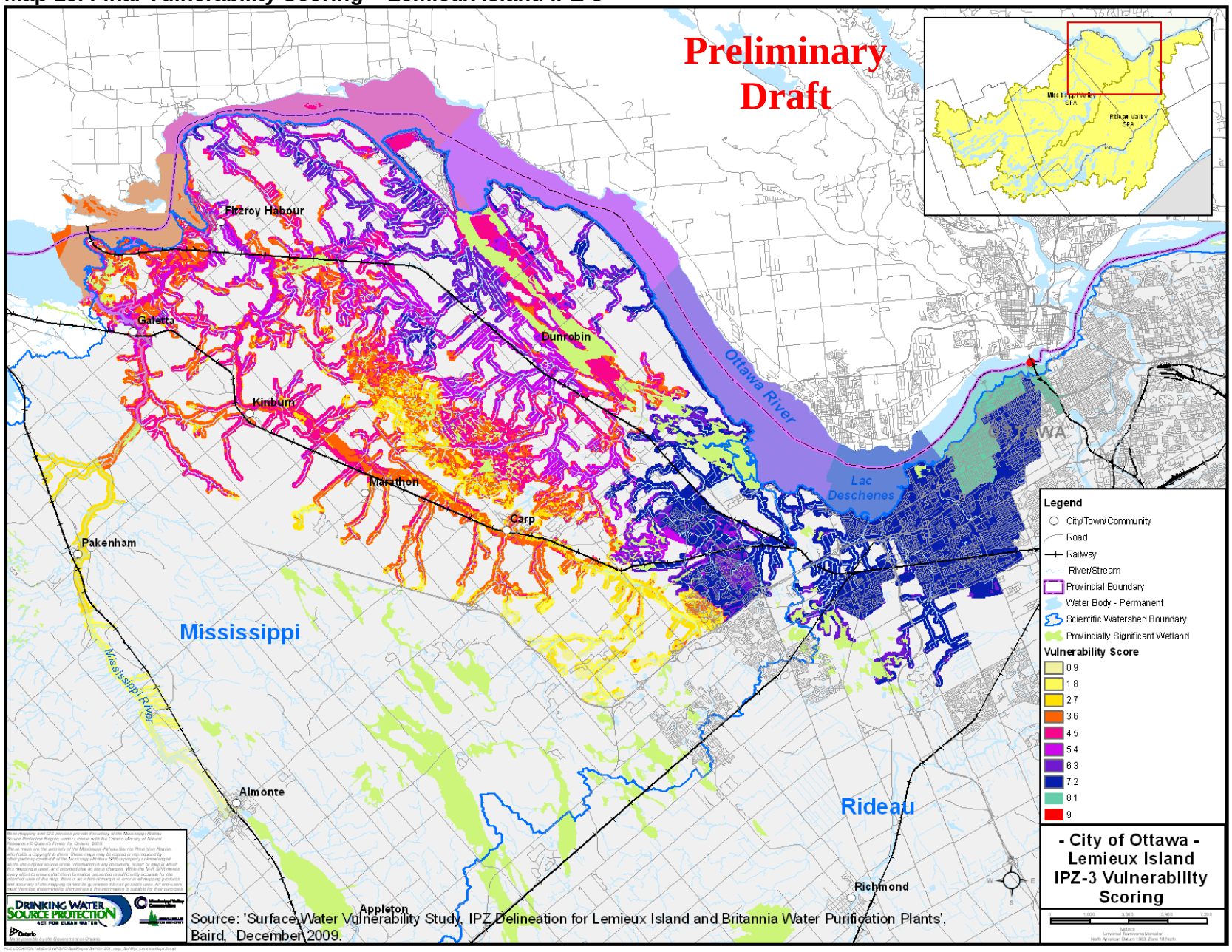


Table 2: Provincial Threat Categories with Circumstances That Could Pose a Significant Risk in an IPZ

		Intake Protection Zone (IPZ) Vulnerability Scoring							
	Contaminant released:	Chemical				Pathogen			
	Prescribed drinking water threat category	10	9	8+	1-7	10	9	8+	1-7
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*.	✓	✓			✓	✓	✓	
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	✓	✓	✓		✓	✓	✓	
3	The application of agricultural source material to land.	✓	✓			✓	✓	✓	
4	The storage of agricultural source material.	✓	✓			✓	✓	✓	
5	The management of agricultural source material.								
6	The application of non-agricultural source material to land.	✓	✓			✓	✓	✓	
7	The handling and storage of non-agricultural source material.	✓	✓			✓	✓	✓	
8	The application of commercial fertilizer to land.	✓	✓						
9	The handling and storage of commercial fertilizer.	✓							
10	The application of pesticide to land.	✓	✓	✓					
11	The handling and storage of pesticide.	✓	✓						
12	The application of road salt.	✓	✓						
13	The handling and storage of road salt.	✓	✓						
14	The storage of snow.	✓	✓						
15	The handling and storage of fuel.	✓							
16	The handling and storage of a dense non-aqueous phase liquid (DNAPLS)*.	✓							
17	The handling and storage of an organic solvent.	✓							
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	✓	✓						
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.**								
20	An activity that reduces the recharge of an aquifer.**								
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard.	✓	✓			✓	✓	✓	

*DNAPLs are chemicals that are heavy and sink in water (e.g. trichloroethylene)

**Water quantity threats will be evaluated as a part of the Water Budget studies

3b) Issues Approach

A drinking water issue is a documented problem with the quality of drinking water. This can be a chemical or pathogenic bacteria problem documented in the source of a surface water system that exceeds Ontario's established drinking water standards, or shows the potential to exceed these standards in the future.

Under the Technical Rules, for municipal drinking water systems issues can refer to chemical, nuclear, or bacterial contaminants. For non-municipal intakes, issues are limited to chemical or nuclear contaminants. The specific parameters can be found in Schedules 1, 2, or 3 of the Ontario Drinking Water Quality Standards, and in Table 4 of the Technical Support Document for the Ontario Drinking Water Quality Standards, Objectives and Guidelines. The Ontario Drinking Water Quality Standards can be found here: http://www.search.e-laws.gov.on.ca/en/isysquery/4911a9de-3fbb-4359-ad9f-4bb28526e99e/5/frame/?search=browseStatutes&context.

The Technical Support Document for the Ontario Drinking water Standards can be found here: http://www.ontario.ca/drinkingwater/stel01_046947.pdf

The identification of known issues is a way to include historic or cumulative activities in the source protection planning process. For example, an old industrial site could be leaching a contaminant into the aquifer, resulting in poor water quality.

If a contaminant or pathogen has been identified in the source water of a well, the following information is required:

- the area or location that is causing the contaminant or pathogen, and
- the land use activities, conditions (including naturally occurring conditions), or past activities at that location that are associated with the contaminant or pathogen.

If the above information cannot be readily determined, a plan must be developed to collect it for inclusion in a future Assessment Report.

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

3c) Event Based Approach

As discussed above in Step 1 for the delineation of IPZ-3, the Province has prescribed an event-based approach that considers the dispersion of a contaminant spill within the watershed. The event-based approach allows activities to be identified as a significant drinking water threat if it can be shown through modeling that a release of a specific contaminant from an activity would result in an issue at the intake.

For More Information Contact:

Sommer Casgrain-Robertson
Co-Project Manager
Mississippi-Rideau Source Protection Region
Tel.: 613-692-3571 or 1-800-267-3504 ext 1147
Email: sommer.robertson@mrsourcewater.ca
www.mrsourcewater.ca

3.0 Assessment Report Due Date Extension

Date: December 18, 2009
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

1. That the Mississippi-Rideau Source Protection Committee approve the following Assessment Report extension request and submit it to the Ministry of the Environment for approval.

Background
Proposed Assessment Reports are due to the Ontario Ministry of the Envionment (MOE) one year after Terms of Reference are approved. Source Protection Committees submit *proposed* Assessment Reports to their Source Protection Authorities, who in turn submit them to MOE for approval.

Terms of Reference were approved for the Mississippi Valley Source Protection Area on February 5, 2009, therefore, a *proposed* Assessment Report for the Mississippi watershed must be submitted to MOE by February 5, 2010**.** Terms of Reference were approved for the Rideau Valley Source Protection Area on March 16, 2009, therefore, a *proposed* Assessment Report for the Rideau watershed must be submitted to MOE by March 16, 2010.

Due Date Extention Required
As a result of delayed Technical Rules and technical studies the Mississippi-Rideau Source Protection Committee knew they would be unable to complete proposed Assessment Reports by their due dates.

In April 2009, the Committee asked the MOE for a due date extension. The MOE asked the Committee to report back in the fall when more information would be available about the status of their technical studies and a more definite work plan could be provided.

In response to MOE's request, staff and Chair Stavinga prepared and submitted the attached **DRAFT** work plan and timeline to the MOE. As noted in the letter, this work plan and timeline is draft and subject to Committee review and approval. The recommended timeline would see *proposed* Assessment Reports submitted to MOE on September 21, 2010.

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Mississippi Valley Conservation

RIDEAU VALLEY CONSERVATION AUTHORITY

December 11, 2009

VIA EMAIL & REGULAR MAIL

Ian Smith, Director
Source Protection Programs Branch
Drinking Water Management Division
2 St Clair Ave West, 8th Floor
Toronto, Ontario, M4V 1L5

RE: Assessment Report Due Date – Extension Request
Mississippi-Rideau Source Protection Region

Dear Mr. Smith,

Further to our earlier correspondence, this letter is a formal request asking the Ministry of the Environment (MOE) to extend the Assessment Report due dates for the Mississippi Valley Source Protection Area and the Rideau Valley Source Protection Area to September 21, 2010 (current due dates are February 5, 2010 and March 16, 2010 respectively).

Please be advised that this letter has been prepared with assistance from staff and will be subject to the approval by our Source Protection Committee and Source Protection Authority Boards. An approved version of this submission will be forwarded to you following their meetings in January 2010.

Background
A formal assessment report extension request was submitted to the MOE on April 9, 2009 from the Mississippi and Rideau Source Protection Authorities. The MOE provided a response letter, dated June 24, 2009. In the response letter, it was requested that the Authorities report back to the MOE in writing in the late Fall or at a time when more information is known about the status of the technical work and a revised workplan for the development of the assessment report has been determined. We thank you for your letter and the additional opportunity to re-assess our request for an extension.

Overall Approach to Development of the Assessment Report
As presented in the April 9, 2009 letter, the process of developing Mississippi-Rideau Assessment Report has been organized into three phases

Phase 1:
- Completion of background technical studies
- SPC, SPA, municipal and public review of draft findings
- Development of *preliminary draft* Assessment Report chapters
- SPC review of *preliminary draft* chapters

Phase 2:
- Consolidation of chapters into a *preliminary draft* Assessment Report

Box 599, 3889 Rideau Valley Drive Telephone 613-692-3571 Fax 613-692-0831
Manotick, ON K4M 1A5 1-800-267-3504

- SPC review, amendment and approval as “draft for public consultation”
- SPA, municipal and public consultation on the *draft* Assessment Report

Phase 3:

- SPC review of public comments received on *draft* Assessment Report
- Development of *proposed* Assessment Report
- Public consultation on the *proposed* Assessment Report
- Submission of the *proposed* Assessment Report to MOE for approval

Since our original request for an extension, there have been changes to our anticipated completion dates for the various tasks outlined in our Terms of Reference. Significant effort continues to be directed towards Phase 1 by the Mississippi-Rideau Source Protection Committee (MRSPC), Mississippi-Rideau Source Protection Region staff and the selected consultants. We remain committed to completing the technical work to a high standard and in compliance with the technical rules (amendments finalized last month). The status of the technical work and schedule for public consultation is provided below. These anticipated timelines are the most aggressive that we could develop without compromising legislative requirements or effective consultation.

Status/Schedule of Technical Work - Phase 1

The status of the technical work is summarized in Table 1 below. With some exceptions (noted in Table 1), the bulk of the technical work has been completed for the following technical assessment report components; watershed characterization study, water budget studies, wellhead protection areas studies, highly vulnerable aquifers study, significant groundwater recharge areas, and groundwater threats and issues.

The components that need additional time to complete include; intake protection zones (IPZ) studies and surface water threats and issues studies. It is projected that the IPZ studies will be completed in February 2010 and the surface water threats and issues studies will be completed by March 2010.

Once each technical assessment report component is complete, the information is presented to the MRSPC as a *preliminary draft* Assessment Report chapter. The attached proposed assessment report development schedule indicates the proposed dates for presenting *preliminary draft* Assessment Report chapter to the MRSPC.

The attached proposed schedule for completion of assessment report is based on development of individual chapters and assumes that there will no further significant delays. If delays are encountered, it will result in a delay in the overall completion of the draft Assessment Report.

Table 1 – Status of Technical Work, December 2009

Components of Assessment Report	**Status of Technical Studies**	**Status of *Preliminary Draft* Assessment Report Chapters**
Watershed Characterization (WC)	All WC work is complete except for **managed lands** and **livestock density** information. Dillon Consulting is currently working on this deliverable. All groundwater related managed lands/livestock density work to be complete by end of **December 2009**. All surface water related managed lands/livestock density work to be completed after IPZ studies are	The WC chapter will be completed in January 2010 (except of surface water related managed lands/livestock density information) and will be presented to the SPC in **February 2010**.

	complete (see below).	
Water Budget (WB)	All WB studies are **complete**.	The WB chapter was presented to the SPC in **December 2009**.
Wellhead Protection Areas (WHPA)	All seven WHPA studies are **complete.** The Lanark WHPA Study (a future drinking water system) will not be included in the Assessment Report because no funding has been provided for the construction of the drinking water system. The Lanark WHPA study will be shown as a **data gap** in the Assessment Report.	The groundwater chapter will include WHPA, HVA, SGRA and threats/issues results. The groundwater chapter will be completed in February 2010 and will be presented to the SPC in **March 2010**.
Highly Vulnerable Aquifers (HVA)	All HVA studies are **complete**.	See status of groundwater chapter above.
Significant Groundwater Recharge Areas (SGRA)	All SGRA studies are **complete**.	See status of groundwater chapter above.
Groundwater Threats and Issues	The groundwater threats/issues work is **complete**, except for revisions to include prescribed threats circumstances that require managed lands, livestock density and imperviousness surface information. The managed lands/livestock density/imperviousness surface information should be available by early January 2010. Thus, the groundwater threats/issues work will be completed by late **January 2010**.	See status of groundwater chapter above.
Surface Water Threats and Issues	The surface water threats/issues is **in-progress**. It cannot be completed until all the IPZ studies are complete. It is expected that the surface water threats/issues will be completed in **February 2010** (Ottawa intakes) and **March 2010** (inland rivers intakes).	See status of surface water chapter above.
Climate Change Review	The climate change review is **complete** and was approved for public consultation by the SPC in **September 2009**. At the completion of the technical work, the major conclusions will be reviewed to determine how they might change in relation to identified climate change impacts.	The climate change chapter will be completed in March 2010 and presented to the SPC in **April 2010**.

Intake Protection Zones (IPZ)	Three Inland Rivers IPZ studies (Carleton Place, Perth, Smiths Falls) are **still in-progress**. These studies were presented to the SPC in May 2009, however, the SPC did not approve the studies for public consultation because of concerns related to IPZ 2 vulnerability scoring. A significant amount of work has been done since, including two information/discussion meetings, to try and resolve the concerns. The City of Ottawa IPZ study is in the final stages (to be completed in **mid December 2009**) of completion and it is to be presented to the SPC in January 2010. Significant effort has been required to complete the IPZ 3 delineation based on the new event based approach. It is expected the three Inland Rivers IPZ studies will be **completed in early February 2010** and presented to the SPC in March 2010.	The surface water chapter will include IPZ and threats/issues results. The surface water chapter will be completed in April 2010 and will be presented to the SPC in **May 2010.**

The managed lands and livestock density information (a requirement of the amended technical rules) has caused significant delays in the completion of the watershed characterization work and the groundwater threats/issues work.

We continue to work diligently to resolve outstanding issues with respect to ensuring a technically sound approach for vulnerability scoring for intake protection zone – two (IPZ–2) for Carleton Place, Perth and Smith Falls. The satisfactory resolution of these issues is crucial as the surface water threats work for Carleton Place, Perth and Smith Falls is closely linked to the vulnerability scores. Consequently, the threats work at these locations cannot be completed until the vulnerability scores are approved by the MRSPC.

In addition, for the City of Ottawa IPZ study, a significant amount of extra effort has been required to complete the IPZ 3 delineation based on the new event based approach (EBA). We are sincerely appreciative of extensive involvement of MOE technical staff with this work by commenting on both the work plan for the EBA IPZ 3 delineation and results.

As indicated above, the final chapter of the assessment report to be completed, the surface water chapter, will be presented to the MRSPC in May 2010. Staff will then need time to make changes identified by the MRSPC to this chapter and consolidate all chapters into the *draft* Assessment Report. The *draft* Assessment Report will be presented to the MRSPC in June 2010.

Schedule for Public Consultation for Assessment Report – Phase 2 and 3

(1) *Draft* Assessment Report – Phase 2

When completed, all preliminary draft Assessment Report chapters will be compiled into a *preliminary draft* Assessment Report. When the *preliminary draft* Assessment Report is approved by the MRSPC, it will become the *draft* Assessment Report for public consultation. The proposed tasks and timelines for Phase 2 are provided below.

Task	Timeline
SPC review *preliminary draft* AR. Consider publishing *preliminary draft* AR for public consultation (now *draft* AR)	June 3, 2010
SPC publish *draft* AR on website and make available at MVC and RVCA offices	June 15, 2010
SPC send copy of *draft* AR to each municipal clerk for comment	June 15, 2010
SPC send copy of *draft* AR to each neighbouring SPC for comment	June 15, 2010
SPC issue notice* on website, in newspapers and at other locations advising the public of the opportunity to view and comment on the *draft* AR	June 15, 2010
SPC send copy of *draft* AR to SPAs for comment	June 15, 2010
SPC receive written comments on *draft* AR	Between June 15 and July 20, 2010
SPC host 2 public meetings to consult on *draft* ToR (one meeting in each Source Protection Area)	Between June 15 and July 20, 2010
Staff prepare a summary of comments received on *draft* AR and prepare recommendations about how to address them	July 20 and August 5, 2010

(2) *Proposed* Assessment Report – Phase 3

Staff will summarize all comments received on the *draft* Assessment Report during public consultation and make recommendations about how these comments could be addressed. The MRSPC will consider all comments when making final revisions to the *draft* Assessment Report.

The MRSPC will forward their *proposed* Assessment Report to the SPAs and post it for a final public consultation period. SPAs will submit the *proposed* Assessment Report to MOE for review and approval along with any public comments they receive or comments they wish to make. The proposed tasks and timelines for Phase 3 are provided below.

Task	Timeline
SPC review summary of comments received on *draft* AR and staff recommendations for proposed changes Consider submitting revised *draft* AR to SPAs and posting for public consultation (now *proposed* AR)	August 12, 2010
Staff prepare *proposed* AR Staff prepare a summary of public comments received on *draft* AR and how they were addressed	August 12, 2010
SPC publish *proposed* AR on website and make available at MVC and RVCA offices	August 20, 2010
SPC send copy of *proposed* AR to each municipal clerk for comment	August 20, 2010
SPC send copy of *proposed* AR to neighbouring SPCs for comment	August 20, 2010
SPC send copy of *proposed* AR to each person who submitted comments on *draft* AR	August 20, 2010
SPC issue notice on website, in newspapers and at other locations advising the public of the opportunity to submit written comments on *proposed* AR to SPAs	August 20, 2010
SPC submit *proposed* AR to SPAs along with a summary of comments received on the *draft* AR and whether they were addressed in the *proposed* AR	August 20, 2010
SPAs receive written comments on *proposed* AR	August 20 – September 19, 2010
Staff compile comments received	September 20, 2010

Task	Timeline
SPAs submit to the Minister of the Environment: - p*roposed* AR - summary of comments received on *draft* AR and how they were addressed; and - new comments received on *proposed* AR	September 21, 2010
Staff submit SPAs' package to the Minister	September 21, 2010
SPAs provide SPC with copy of comments received on *proposed* AR	September 21, 2010
Minister will review the package and approve *proposed* AR or require SPAs to amend them and resubmit	approval timeline unknown
Once approved the Minister will publish a notice on the Environmental Bill of Rights Registry	Soon after approval
SPAs publish *approved* AR on web site and make available at other locations	Soon after approval

If you have any questions or you wish to discuss this request, please contact me at janet.stavinga@mrsourcewater.ca. I look forward to continuing to work with MOE to complete our Assessment Report which will be an important milestone in the drinking water source protection process.

Sincerely,

Janet Stavinga

Janet Stavinga, Chair, Mississippi-Rideau Source Protection Committee

Attachments:

Proposed Schedule for the Completion of the Mississippi-Rideau Assessment Report

C.c.

Mark Burnham, Chair, Mississippi Valley Source Protection Authority
Alan Arbuckle, Chair, Rideau Valley Source Protection Authority
Paul Lehman, General Manager, Mississippi Valley Conservation
Dell Hallett, General Manager, Rideau Valley Conservation Authority
Mary Wooding, MOE Liaison

Proposed Schedule for Completion of Mississippi-Rideau Assessment Report

	DRAFT Assessment Report Chapters	Dec-09					Jan-10				Feb-10				Mar-10					Apr-10				May-10				1-Jun					1-Jul					1-Aug					1-Sep					1-Oct				
		1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
PHASE 1	**Chapter 1 - Introduction**														Ch1																																					
	Chapter 2 - Watershed Characterization		TS(2a)								Ch2				TS(2b)																																					
	Chapter 3 - Water Budget	Ch3																																																	
	Chapter 4 - Threats Approach														Ch4																																					
	Chapter 5 - Groundwater									TS(5a)					Ch5																																					
	IPZ Study **Chapter 6 - Surface Water** *Threats Study*			TS(6a)			TS(6a)				TS(6b)				TS(6b)									Ch6																												
												TS(6c)								TS(6d)																																			
	Chapter 7 - Climate Change																			Ch7																																
	Chapter 8 - Topics for Additional Research																			Ch8																																
	Chapter 9 - Key Findings and Considerations for SPP																							Ch9																												
	Preliminary Draft AR																											D.AR																									
PHASE 2	**Consultation on Draft Assessement Report**																												35 days public consultation											P.AR												
PHASE 3	**Consulation on Proposed Assessment Report**																																						30 days public consultation				Submit								

Ch *Preliminary Draft* Assessment Report Chapters presented to SPC

P.AR *Proposed* Assessment Report

Submit Submitt Proposed Assessement Report to MOE

Week of SPC meeting

TS(2a)	2nd wk of Dec.	Estimated Completion Date for Groundwater Managed Lands and Livestock Density
TS(2b)	1st wk of Mar.	Estimated Completion Date for Surface water Managed Lands and Livestock Density
TS(5a)	4th wk of Jan.	Estimated Completion Date for Final Groundwater Threats
TS(6a)	3rd wk of Dec.	Estimated Completion Date for Baird Ottawa River IPZ Study
TS(6a)	1st wk of Jan.	Estimated date to bring Baird Ottawa River IPZ Study to SPC for Approval
TS(6b)	2nd wk of Feb.	Estimated Completion Date for JFSA Inland River IPZ Study
TS(6b)	1st wk of Mar.	Estimated date to bring JFSA Inland River IPZ Study to SPC for Approval
TS(6c)	2nd wk of Feb.	Estimated Completion Date for Surface water Threats Study - Ottawa River Intakes
TS(6d)	3rd wk of Mar.	Estimated Completion Date for Surface water Threats Study - Inland River Intakes

4.0 Well Aware Program

Date: December 18, 2009
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

1. That the Mississippi-Rideau Source Protection Committee approve the attached letter of support for the Well Aware program and submit it to Minister Gerretsen.

Background
Patricia Larkin, a member of the Mississippi-Rideau Source Protection Committee, prepared the attached letter of support for the Well Aware Program. She has requested that the Committee consider endorsing this letter and submit it to John Gerretsen, Minister of the Environment.

DRAFT for MRSPC Consideration

Dear Minister Gerretsen,

Thank you for your time in regards to the Well Aware program. We are writing today in support of continued MOE funding for Well Aware past March, 2010.

The topic of private well owners within the Mississippi Rideau Source Protection Region has been discussed repeatedly during our monthly meetings. We understand clearly that these residents, and the protection of their water supply, are not inherently included in our work under the Clean Water Act.

However, the Well Aware program has been reaching out to these individuals, and hundreds of thousands of other residential well owners in Ontario, by educating them on how to protect their wells and our common groundwater supplies. At this juncture, it is in all our best interest to continue to support rural Ontarians on private systems with this effective program. Well Aware is a great value in helping to protect all Ontario groundwater resources.

We urge you and your government to give the Well Aware program your ongoing and expanded support. The program staff, resources and key messages have proven very effective in assisting well owners in protecting our common drinking water source.

Thank you.

Yours sincerely,

Mississippi Rideau Source Protection Committee

cc.

5.0 Community Outreach

Date: December 18, 2009
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

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

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

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

1. *Eastern Ontario Provincial Ministry Staff-to-Staff Day*
    - December 4, Kingston (Brian, Sommer and Chair Stavinga participated)

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

1. *Quarterly Chairs Meeting and Project Manager's Meeting*
    - January 25 & 26, Toronto (Sommer and Chair Stavinga attending)