



MAITLAND VALLEY SOURCE PROTECTION AREA

TERMS OF REFERENCE

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www.sourcewaterinfo.on.ca

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Executive Summary

The *Clean Water Act, 2006* impacts municipalities, conservation authorities, watershed residents, property owners and other stakeholders. It requires that source protection plans be locally written, approved by the Ontario Minister of the Environment and implemented by municipalities. Based on the known requirements and municipal feedback to date, this document is the Terms of Reference for the Maitland Valley Source Protection Area. This Terms of Reference includes the allocation of tasks required to:

- Develop the Assessment Report which will identify drinking water risks;
- Create the Source Protection Plan, which will address risk and be implemented locally.

In keeping with the requirements under Ontario Regulation 287/07 of the *Clean Water Act, 2006* the **Terms of Reference** outlines the work that needs to be done to complete the Assessment Report and the Source Protection Plan. The **Assessment Report** is a summary of water quality and quantity risks in the Source Protection Area; and the **Source Protection Plan** is a policy document, which is an action plan for eliminating, reducing, and managing water quantity and quality risks in the Source Protection Area.

The Source Protection Committee (SPC) circulated the draft proposed Terms of Reference to municipalities, working groups, First Nations, and conservation authorities. The legislation requires that all large municipal residential drinking water systems be included and they are currently being studied by the Source Protection Committee in cooperation with local municipalities. No other systems have been elevated into this process. This document summarizes the work to date, and outlines high level tasks required to complete the Assessment Report and the Source Protection Plan.

1.0 Background

The *Clean Water Act, 2006 (CWA)* was brought into effect with the passing of the first set of regulations on July 3, 2007. The legislation and associated regulations puts in place a framework for establishing a source protection committee (SPC) and geographic study areas called source protection regions (SPR) and source protection areas (SPA). The purpose of this legislation is to protect existing and future sources of drinking water. In order to fulfill this, a comprehensive study of many watersheds in the province will be carried out with the end goal of producing source protection plans, which will outline scientific approaches to managing water quality and quantity risks for drinking water supplies. The Act and Regulations make protecting large municipal residential sources of drinking water the main priority of source protection planning.

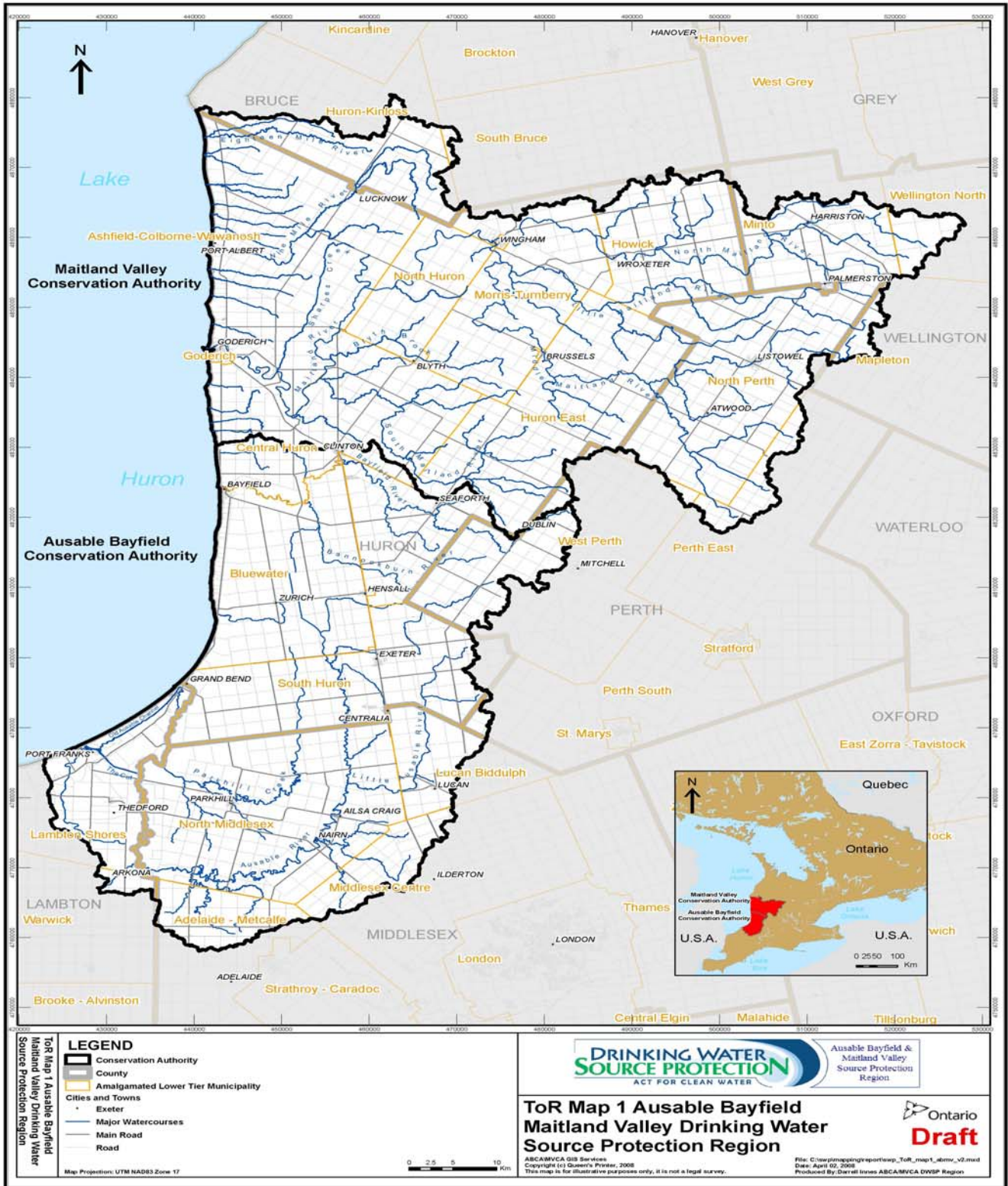
The first step for the SPC in preparing the Source Protection Plan is to develop a comprehensive work plan that will outline the technical studies required and who will perform the work. The first set of regulations passed under the CWA refers to this work plan as a Terms of Reference (ToR). Regulation 287/07 outlines the requirements for how to develop the ToR, the content and the minimum consultation requirements to include local input.

Prior to the CWA, local municipalities and conservation authorities had been promoting and implementing source water protection for decades. Through watershed studies, landowner incentive programs and regional partnerships for water resource management, a significant wealth of information and progress has been made at the local level to protect watersheds. Therefore, as the SPC develops a work plan for the Assessment Report and the Source Protection Plan, it is imperative that this new governance structure builds on the success and momentum of existing partnerships and watershed initiatives.

2.0 Introduction

The purpose of this ToR is for the development of an assessment report and a source protection plan for each Source Protection Area in the ABMV Source Protection Region (Map 1). The Ausable Bayfield Source Protection Area and the Maitland Valley Source Protection Area together comprise a region that is over 5725 km². This document represents the ToR for the Maitland Valley Source Protection Area (Map 2). The ToR begins with a focus on the SPR and the common elements that need to be studied and included in both Source Protection Plans. For example, groundwater movement within the region is not necessarily restricted to the boundaries of surface watersheds so it is important to examine regional information. Likewise, each SPA contains distinct municipal residential drinking water systems that must be studied to identify potential drinking water risks. Therefore, the ToR will draw upon the local information requirements specific to each SPA.

Map 1: Map of Source Protection Region



2.1 Roles & Responsibilities

The ABMV SPR organizational framework is shown in Figure 1. This network of partners is a combination of existing partnerships that have been working successfully on watershed management for decades and new partnerships that have been initiated to achieve the requirements of the *Clean Water Act*.

Source Protection Committee

The SPC is responsible to guide the development of the Assessment Report and the Source Protection Plan. The SPC will work in cooperation with the drinking water source protection authorities to establish work plans and set goals and priorities for drinking water source protection. The SPC will use geographically-based, local community working groups to consider technical studies, ensure input from local municipalities and provide advice on source protection plan requirements.

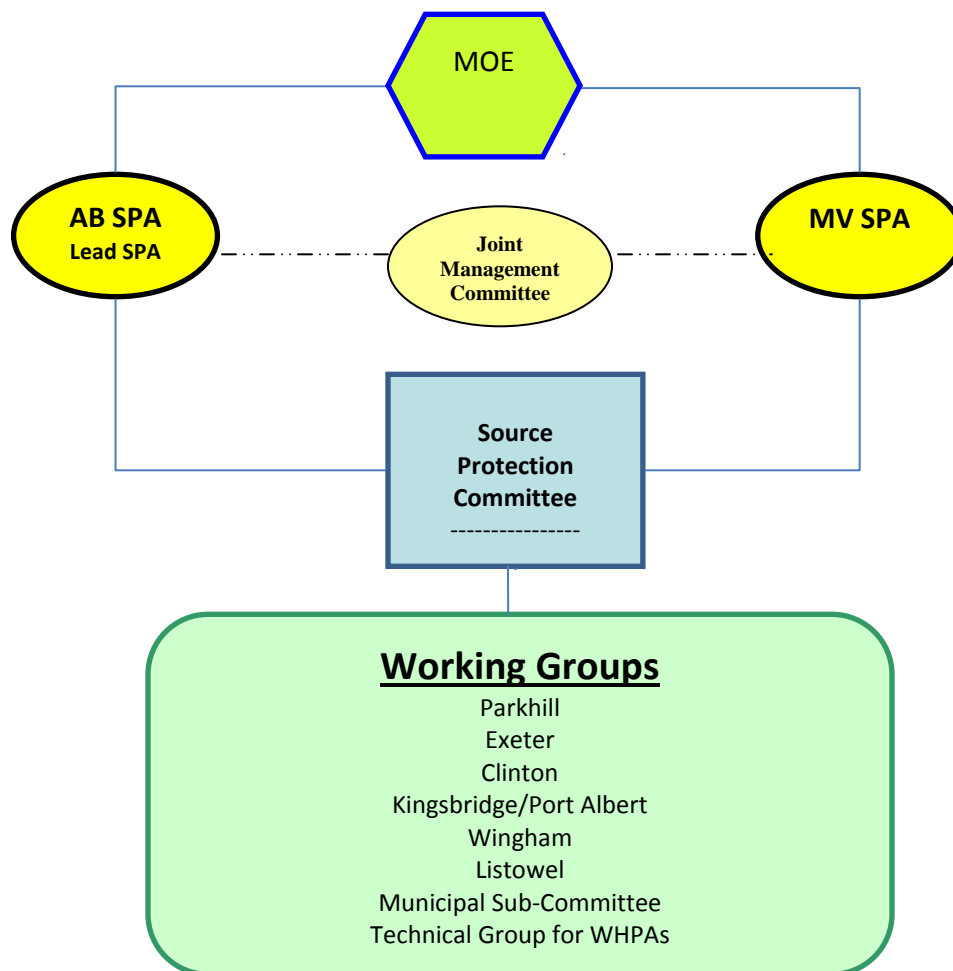
Source Protection Authorities and Joint Management Committee

The Ausable Bayfield and Maitland Valley Source Protection Authorities are responsible for managing the funding for drinking water source protection and to provide input on the SPC products like the Assessment Report and Source Protection Plan. The source protection authorities consist of the existing Boards of Directors for the Conservation Authorities which are comprised of elected and appointed members of local municipalities. The two Source Protection Authorities have agreed to use a joint management committee as a partnership mechanism to manage the key decision points of the source protection program.

Working Groups

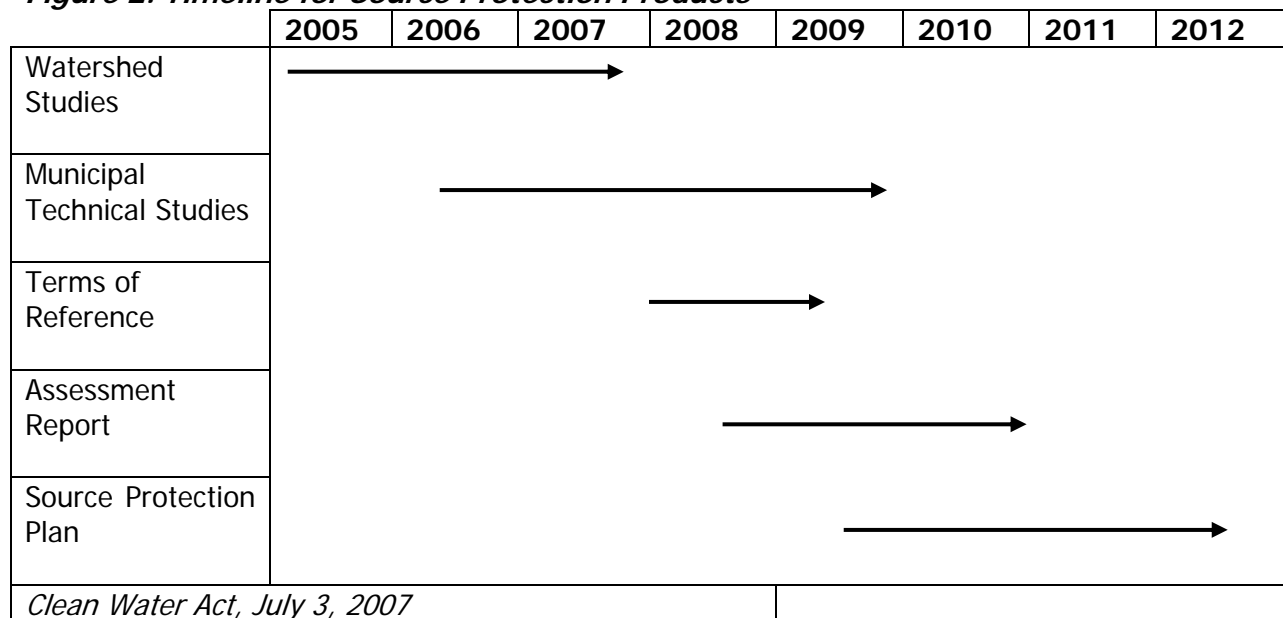
Working groups were established at the beginning of 2008 to promote a better understanding of the science behind the reports and plans by members of the public. As well, these groups comment on draft reports and deliverables and provide feedback to the SPC for incorporation into the final report. Six geographically based working groups have been created. They include: Parkhill, Exeter, Clinton, Port Albert, Wingham and Listowel. As well, there is a municipal sub-committee comprised of council members from across the SPR and a technical working group addressing the well head protection area studies. Most municipalities with large residential drinking water systems have joined one or more working groups. As well, representatives from other stakeholder groups participate in the working groups.

Figure 1. Source Protection Region Organizational Framework



2.2 Timelines

As outlined in Figure 2, the content of the ToR needs to focus on two principal products: 1) the Assessment Report and 2) the Source Protection Plan. The tasks required to complete each of these products started before the CWA was enacted. The Ontario Ministry of the Environment (MOE) and the Ontario Ministry of Natural Resources (MNR) have provided funding since 2005 to initiate watershed and technical studies that would integrate into the Assessment Report and ultimately into the Source Protection Plan.

Figure 2. Timeline for Source Protection Products

3.0 The Source Protection Region

Of the 19 SPRs in the province of Ontario, the ABMV SPR is one of three that is bounded to the west by Lake Huron (extending to the international boundary with the United States). It is bordered by the Saugeen, Grey-Sauble, and Northern Bruce Peninsula SPR to the north, and the remaining boundaries are abutted by the Lake Erie and the Thames Sydenham and Region SPRs. While there are no First Nations reservations within the ABMV SPR, there is the Stony Point claim in the Ipperwash area and other First Nations claims to the bed of Lake Huron. While multifaceted, these jurisdictional issues are not as complex as those faced by other SPRs.

Within the ABMV SPR, there are 24 lower tier and 6 upper tier municipalities. These municipalities rely on a combination of surface water and groundwater sources for drinking water, with approximately 35% of the SPR's population relying on individual wells to supply their drinking water. In addition, there are more than 100 non-municipal drinking water sources serving a variety of public and private user groups.

4.0 The Maitland Valley Source Protection Area

The Maitland Valley SPA contains watersheds that flow into Lake Huron (Map 2). The Maitland Valley SPA comprises the jurisdiction of the Maitland Valley Conservation Authority. The Maitland Valley SPA contains mostly the use of groundwater sources for drinking water, with the exception of the Town of Goderich which sources water from an intake in Lake Huron.

As Table 1 shows, there are 14 lower tier municipalities and the Counties of Bruce, Huron, Perth and Wellington that are in part or in whole included in the Maitland Valley SPA. In addition to these municipal sources, there are a number of non-municipal systems scattered throughout

the Maitland Valley SPA. At present, there has been no request to elevate (include) these drinking water sources within the Terms of Reference.

The drinking water systems that can be included in the source protection planning process are described in Section 6 and 15 of the *Clean Water Act*. This includes large municipal residential systems (both existing and planned), an existing or planned system brought into source protection by a municipal council resolution, or similarly, the Minister may add a system into the study and finally, a First Nation can request a regulation that would elevate their systems into a study. The large municipal residential systems must be included. The systems which can be elevated could be clusters, communal systems or systems that serve a community facility.

Table 1: Municipalities Located in the Maitland Valley Source Protection Area

Legal Name of Municipality
Bruce, County of
Huron, County of
Perth, County of
Wellington, County of
Huron-Kinloss, Township of
South Bruce, Municipality of
Goderich, Town of
Ashfield-Colborne-Wawanosh, Township of
Central Huron, Municipality of
Howick, Township of
Huron East, Municipality of
Morris-Turnberry
North Huron, Township of
Perth East, Township of
North Perth, Municipality of
West Perth, Municipality of
Mapleton, Township of
Minto, Town of
Wellington North, Township of

Table 2: Drinking Water Systems For the Purposes of Preparing the Assessment Report

The table below lists information about the systems that are included in this assessment report. Detailed information on each of these systems is provided in Appendix A.

Type of System (Existing or Planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	260065260	Atwood Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater
Existing	260005281	Auburn Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater
Existing	220008257	Belgrave Well Supply	Morris-Turnberry, Municipality of	Veolia Water Canada	Groundwater
Existing	220007588	Benmiller Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater
Existing	220001496	Blyth Well Supply	North Huron, Township of	North Huron, Township of	Groundwater
Existing	220001487	Brussels Well Supply	Huron East, Municipality of	American Water Services Canada	Groundwater
Existing	220008499	Century Heights Subdivision Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater
Existing	220000031	Clifford Well Supply	Minto, The Corporation of the Town of	Minto, The Corporation of the Town of	Groundwater
Existing	220001539	Clinton Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater
Existing	260007842	Dungannon Well	Ashfield-	Veolia Water	Groundwater

		Supply	Colborne-Wawanosh, Township of	Canada	
Existing	210000238	Goderich Water Treatment Plant	Goderich, Town of	Veolia Water Canada	Surface Water
Existing	220003975	Gowanstown Subdivision Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater
Existing	220000077	Harriston Well Supply	Minto, Town of	Minto, Town of	Groundwater
Existing	220007757	Huron Sands Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater
Existing	220007793	Kelly Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater
Existing	220000512	Listowel Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater
Existing	220002663	Lucknow Well Supply	Huron-Kinloss, Township of	Veolia Water Canada	Groundwater
Existing	220007837	McClinchey Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater
Existing	260034996	Molesworth Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater
Existing	220000059	Palmerston Well Supply	Minto, Town of	Minto, Town of	Groundwater
Planned	220001511	Seaforth Well Supply	Huron East, Municipality of	American Water Canada Corporation	Groundwater
Existing	220008863	Whitechurch Well Supply	Huron-Kinloss, Township of	Veolia Water Canada	Groundwater
Existing	220001502	Wingham Well Supply	North Huron, Township of	North Huron, Township of	Groundwater

Table 3: Fully or Partially Exempted Municipal Residential Drinking Water System(s)

A copy of the resolution pertaining to this system can be found in Appendix B.

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	220001511	Seaforth Well Supply	American Water Canada Corporation	Huron East, Municipality of	Groundwater

List of Drinking Water System(s) Included by Municipal Council Resolution (Not large Municipal Residential Drinking Water Systems)

None identified at this time

List of Drinking Water Systems Serving First Nation Reserves (Not large Municipal Residential Drinking Water Systems)

None identified at this time.

List of Drinking Water System(s) Included by Minister of the Environment (Not large Municipal Residential Drinking Water Systems)

None identified at this time

5.0 Work Plan

The work required under the *Clean Water Act* consists of two main products: the assessment report and the source protection plan. For the MV SPA, an assessment report and a source protection plan will be created. The details regarding the scope of work to complete the Assessment Report and Source Protection Plan can be found in the Regulations and Technical Rules.

To complete the Assessment Report and Source Protection Plan, technical work is required. Details on the tasks and status of current technical work can be found in Appendix C for the Assessment Report and Appendix D for the Source Protection Plan.

In addition to the scope of work required by the Act and Regulations, there are numerous support activities which must be addressed. For example, to undertake these technical requirements within the scope of work will require project management activities, communications strategy and delivery, data and information technology and GIS skills, technical expertise and scientific research, collaboration between all parties and financial resources. The following portion of this section addresses these activities.

5.1 Project Management & Staffing

Oversight for this project has been assigned to a project manager. The Province has used this position as a “point person” to facilitate communications, product delivery and accountability for the success of the project. This position includes management of human resources, contracts, acquisitions in keeping with policy, work planning and financial management. This function will continue throughout the balance of the project. In addition, technical expertise will be procured from both internal sources (staff assigned to source protection planning through the SPAs) and external sources (consultants). Finally, administrative support and technical writing skills are required in house to provide the support to the SPC and working groups and to knit together, in a meaningful way, the various reports and documents received in support of the Assessment Report and Source Protection Plan.

Staff positions dedicated to the source protection program includes a regional project manager, consulting hydrogeologist, water resources engineer, communication specialist, source protection technician(s), project assistant, GIS specialist(s), and database specialist. Additional short term resources will be requested as the need arises.

5.2 Communications and Data Management

Communications in the ABMV Region has been based on community engagement through open dialogue. To this end an interactive website has been developed where documents, information, meeting schedules and news are all posted for public consumption (www.sourcewaterinfo.on.ca). In addition, numerous brochures, presentations and other materials have been produced and are disbursed in as comprehensive fashion as is affordable. This team is also working toward clarifying expectations and the limitations of the *Clean Water Act* as well as gathering a deeper understanding of stakeholder concerns so that they can be reflected in the local planning process. To facilitate these contributions, working groups have been established and are undertaking a comprehensive training program on drinking water source protection.

Data and information management and the GIS function are required not only to provide information for those who prefer diagrams or maps as communications tools, but the products for the Province of Ontario are required in a prescribed digital format. Mapping tools will continue to be refined as the gaps in the science are filled and new requirements from the Province are received.

In order to ensure accurate delineation of drinking water source protection areas, a comprehensive approach to information management must be undertaken. The maps and policies produced through source protection planning must be defensible and reproducible. With the amount of data that are required to produce the legislated requirements, it is important that

neighbouring SPCs discuss information management approaches and aim to achieve similar standards. As noted above, for municipalities that lie in more than one SPR, a consistent approach to data management will be expected.

It is essential to make sure the Source Protection Authorities, municipal partners and other stakeholders, groups or organizations are also kept informed and have an opportunity to provide feedback, make corrections and positive contributions.

5.3 Assessment Report

In its simplest form, the Assessment Report will be a summary of the general watershed characteristics, a summary of the municipal technical studies showing the location of vulnerable areas as well as a list of the water quality and quantity risks around municipal drinking water systems. Watershed characteristics have been studied under the watershed characterization process and water budget activities across the entire SPR. As for specific drinking water systems, all of the large municipal drinking water systems in the ABMV SPR are currently being studied. No other systems have been elevated into this project at this time.

Table 1 and Table 2 outline the municipalities or portion of municipalities that lie within the Maitland Valley SPA and the drinking water systems serving major residential developments that currently exist within it.

Appendix C outlines the tasks required for the Assessment Report including a description of the task, the lead for the task, and the expected completion date for the task. Due to the strong relationship between the conservation authorities and local municipalities, all of the groundwater studies underway to date have been led by the ABMV staff. Municipal council resolutions were provided to confirm this lead role. In the cases of the surface water intakes at Goderich and Port Blake, the municipalities have chosen to lead these technical studies with the ABMV staff as part of the steering committees. Where a task had not already been initiated, the lead has been confirmed through the development of the ToR.

5.4 Source Protection Plan

A Source Protection Plan is a legislated requirement in the *Clean Water Act* that the SPC must develop for each SPA within the SPR. Although the CWA provides a general framework for the source protection plans, the specific details regarding content and methods will only be available once the Province of Ontario develops and enacts a regulation. The anticipated date for a final regulation on the source protection plans is 2009.

The development of the Source Protection Plan for the Maitland Valley SPA will be guided by the same resources identified in the Assessment Report scope of work. It is anticipated that the roles may shift slightly for some of the stakeholders involved. For instance, municipal planning staff may wish to become involved and steer or undertake work to provide the SPC with sample policies which reflect both strong planning principles and the input from the working groups.

Appendix D highlights the principal tasks required for the creation of the Source Protection Plan. Through the review of the ToR, feedback will be requested from local municipalities on the roles

and implementation of these tasks. Only general timelines can be set at this point in the process. The overall timelines are reflected in the multi-year schedule which provides a schematic of the start date and completion date for the major source protection tasks.

6.0 The Date the Source Protection Plan is to be submitted to the Minister for approval by the Maitland Valley Conservation Authority:

2012-Aug-20

7.0 List of Matters that Affect Other Source Protection Committees

7.1 Water Systems Which Cross SPR Boundaries

Source Protection Committees Affected	Source Protection Area	Description of Matter – Well Head Protection Areas which cross SPR boundaries
Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee	Saugeen Valley Source Protection Area	<p>A number of municipalities are shared with the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region: the Municipality of South Bruce, the Township of Huron-Kinloss, the Municipality of Morris-Turnberry, the Township of Howick, the Town of Minto and the Township of Wellington North. Early indications are that a WHPA crosses the SPR boundaries in Huron-Kinloss and Minto. In these areas, the ABMV SPC will:</p> <p>Work to coordinate approaches for WHPA technical studies</p> <p>Review the outputs from the neighbouring SPR to create a better representation of the groundwater system as it recharged outside of the MV SPA.</p> <p>During the plan development phase, work toward reasonably consistent policies for drinking water source protection.</p>
Lake Erie Source Protection Committee	Grand River Source Protection Area	<p>A number of municipalities are shared with the Lake Erie Source Protection Region: the Municipality of West Perth, the Municipality of Perth East, the Township of Mapleton and the Township of Wellington North. Early indications are that a WHPA crosses the SPR boundaries in Mapleton. In this area the ABMV SPC will:</p>

		<p>Work to coordinate approaches for WHPA technical studies</p> <p>Review the outputs from the neighbouring SPR to create a better representation of the groundwater system as it recharged outside of the MV SPA.</p> <p>During the plan development phase, work toward reasonably consistent policies for drinking water source protection.</p>
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7.2 Regional Groundwater Flow and Vulnerability Mapping

A significant and challenging aspect of the source protection program is the development of detailed computer models of how groundwater flows in the SPR. Several versions of vulnerability mapping exist from previous studies, some of which were specific to municipal boundaries. The regional groundwater vulnerability deliverable for drinking water source protection will involve the review of previous work and a more accurate and up-to-date map of highly vulnerable aquifers and significant groundwater recharge areas. As this technical exercise is conducted, it is essential that the mapping is compared and relatively compatible with the mapping in neighbouring SPRs. In some cases, the deep groundwater system in the ABMV SPR is recharged from outside the region. Therefore, understanding the techniques and outputs from neighbouring SPRs will help create a better representation of the groundwater system in our region.

7.3 Shared Municipalities

An important issue for discussion with neighbouring SPCs relates to the municipalities that lie in one or more source protection regions. Although each SPR will have distinct geographic features that will have an impact on the drinking water systems, municipalities have indicated from the beginning of the technical work that a coordinated approach to the development of WHPAs and IPZs should be undertaken. In addition, once the plan development phase begins, shared municipalities anticipate reasonably consistent policies for drinking water source protection. To that end, the SPC has directed that there be ongoing contact with municipalities, their operators and planning staff to generate a collaborative approach to studies and recommendations. In addition, the Source Protection Committee has met with and shared preliminary drafts of these Terms of Reference with the municipalities in order to include the tasks they would like to undertake in the preparation of the Assessment Report, and Source Protection Plan and to verify the systems to be included in these documents.

7.4 Great Lakes

If a source protection area contains water that flows into the Great Lakes, the Terms of Reference for the preparation of an assessment report and source protection plan for the source protection area shall be deemed to require consideration of the following documents:

the Great Lakes Water Quality Agreement, 1978, the Great Lakes Charter, 1978, and the Canada-Ontario Agreement, 2002. Since the ABMV SPR drains into the Great Lakes system, it is advisable to discuss with the Source Protection Committees for all other Source Protection Regions that drain into the Great Lakes, the implications of this requirement and the level of detail that is required to achieve the intent of the legislation.

8.0 Other Work Initiatives

8.1 First Nations

While there are no federally recognized reserve lands within the SPR, the First Nations in the area have expressed an interest in participating in source protection planning with the ABMV and have formally requested this of the Minister of Environment. The two Bands Kettle and Stony Point form one First Nation, the Kettle and Stony Point First Nation. The “reserve” for Stony Point (in transition from the former Camp Ipperwash) is within the ABMV SPR, but the reserve for Kettle Point is about one km outside the ABMV SPR in the Thames, Sydenham & Region Source Protection Region. Given the jurisdictional complexities outside of this process, they wish to work with one SPR as the lead. The Source Protection Committee has met with and shared preliminary drafts of these Terms of Reference with the First Nation.

8.2 Guiding Principle

In developing policies for the Source Protection Plan, the SPC will have regard for the financial impact on those affected. Both existing and new programs, opportunities and financial instruments will be considered. The SPC will have regard for the financial impact on those affected including normal business or standard practices and expectations for existing situations. The policies may also consider the cost of the change, any ongoing or repetitive costs, long-term impacts and any impacts on productive capacity or competitive advantage. Both existing and new programs, opportunities, financial instruments, and education and outreach policies and programs will be considered. The SPC will continue to request that the province provide adequate funding where required and fund the program beyond 2011 in order to provide financial assistance to property owners affected by new policies and risk reduction strategies that may result from approved source protection planning.

8.3 Other Drinking Water Systems

The *Clean Water Act 2006* states that all municipal drinking water systems serving major residential developments are automatically included in these Terms of Reference. While no other systems, such as communal supplies or facility supplies have been elevated into these Terms of Reference, the SPC is especially concerned for those who live in the SPR in clusters where they are not subject to any source protection barriers. To that end, the SPC will work with municipalities to identify areas where there are potential water quality problems, encourage municipalities to utilize the Ministry of Environment guidance and screening tools, generate a pilot study if deemed a suitable approach. Municipalities have the option to request an amendment to these Terms of Reference to elevate other systems.

8.4 Great Lakes

The *Clean Water Act* requires source protection committees whose areas drain into the Great Lakes to consider and incorporate Great Lakes water quality objectives into their Source Protection Plans. The Minister may direct a source protection authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. The SPC has sent a copy of the Terms of Reference to representatives from the International Joint Commission on the Great Lakes. The SPC will invite experts on the subject of Lake Huron and the agreements that pertain to it to their meetings to determine if there are any implications to the Assessment Report or Source Protection Plan. The SPC will work collaboratively to prepare any required report or policies to address Great Lakes Targets set by the Minister.

9.0 Public Engagement

A fundamental principal for source protection is consultation with stakeholders. The SPC is seeking local input in many ways, through meetings with groups, establishing working groups, presentations, brochures and pamphlets, radio and television opportunities. Beyond these efforts, the *Clean Water Act, 2006* requires formal consultation on the Terms of Reference, Assessment Report and the Source Protection Plan. Formal consultation took place starting in January 2008 with notices to municipalities, neighbouring SPR's and First Nations. A copy of this notice is included in Appendix E. Four public opportunities took place (two in each Source Protection Area) on the Draft Proposed Terms of Reference in Wingham (Wednesday, May 21, 4-6 p.m.), Parkhill (Thursday, May 22, 4-6 p.m.), Varna (Saturday, May 24, 10-12 p.m.) and Holmesville (Wednesday, May 28, 4-6 p.m.). In keeping with these requirements the following activities were undertaken to gather public input on these Terms of Reference:

- Newspaper notice indicating the dates and places of meetings to discuss the Draft Proposed Terms of Reference, and where copies of the Draft Proposed Terms of Reference could be inspected were placed in the following weekly publications and on the internet:
 1. Middlesex Banner,
 2. Exeter Times Advocate,
 3. Lakeshore Advance,
 4. Forest Standard,
 5. Huron Expositor,
 6. Clinton News Record,
 7. Parkhill Gazette,
 8. Wingham Advance Times,
 9. Listowell Banner,
 10. Minto Express,
 11. Lucknow Sentinel,
 12. Goderich Signal Star,
 13. North Huron Citizen.

- Appendix E contains a copy of the notice for these stakeholder opportunities. At these meetings copies of the Source Protection Area Draft Proposed Terms of Reference were made available, Source Protection Committee members and staff were present, comment sheets were available, maps and user friendly explanations of the Draft Proposed Terms of Reference were provided. In addition, materials which gave an overview of source protection and the process were available. Written comments were received by the Source Protection Committee and considered and acted upon at the June and July meetings in 2008.

During phase 2 of the consultation, a notice was published notifying the public of 30-day comment period (beginning on August 6 and finishing on September 5) on the Proposed Terms of Reference in the following weekly publications and on the internet:

1. Middlesex Banner,
2. Exeter Times Advocate,
3. Lakeshore Advance,
4. Forest Standard,
5. Huron Expositor,
6. Clinton News Record,
7. Parkhill Gazette,
8. Wingham Advance Times,
9. Listowell Banner,
10. Minto Express,
11. Lucknow Sentinel,
12. Goderich Signal Star,
13. North Huron Citizen.

A copy of this notice is located in Appendix E. All comments received by the public during this time were attached to the Terms of Reference and submitted to the Minister of the Environment for approval. Appendix E also contains a timeline of completion for all of the tasks completed as part of the stakeholder engagement process. The ABMV SPC is committed to generating documents that reflect local perspectives as much as local science.

Appendix A: Detailed Information on Drinking Water Systems

Detailed Information on Drinking Water Systems for the Purposes of Preparing the Assessment Report

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220008863	Whitechurch Well Supply	Huron-Kinloss, Township of	Veolia Water Canada	Groundwater	1
Number of Surface Water Intakes	Comments					
0	The Whitechurch Well System was constructed in 1961/62, and is servicing an approximate population of 92 residents. The community is currently serviced by a single well, located on Lot 3, Plan # 226, in the Township of Huron-Kinloss. It is approximately 15 cm in diameter, and was drilled to an approximate depth of 52 metres in August 1961.					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	210000238	Goderich Water Treatment Plant	Goderich, Town of	Veolia Water Canada	Surface Water	0
Number of Surface Water Intakes	Comments					
1	Services approximately 7,500 people.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
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existing)		Name			ground, both)	
Existing	220007757	Huron Sands Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260007842	Dungannon Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220007588	Benmiller Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater	1
Number of Surface Water Intakes	Comments					

0	
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Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220008499	Century Heights Subdivision Well Supply	Ashfield-Colborne-Wawanosh, Township of	Veolia Water Canada	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000031	Clifford Well Supply	Minto, The Corporation of the Town of	Minto, The Corporation of the Town of	Groundwater	3
Number of Surface Water Intakes	Comments					
0	The Clifford Well Supply consists of 3 wells, all located in the Saugeen Valley Source Protection Area. Parts of the well head protection areas for all three wells fall into the Maitland Valley Source Protection Area.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001539	Clinton Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater	3
Number of Surface Water Intakes	Comments					
0	<p>The Clinton Well Supply consists of 3 artesian wells. All three wells are located in the Ausable Bayfield Source Protection Area but parts of their well head protection areas fall within the Maitland Valley Source Protection Area. All are 300 plus feet deep. One is located in the work centre building at 17 Park Lane and the other 2 are a short walk from the work centre. Three wells pump into a 500,000 gallon underground reservoir. This water is disinfected by gas chlorination prior to entering the reservoir. Since it is an underground system a 450 kW generator supplies constant power if the hydro is out. The pump plant consists of 4 pressure pumps and 1 fire pump.</p>					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260005281	Auburn Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater	1
Number of Surface Water Intakes	Comments					
0	<p>The Auburn Well Supply is located in a small wooden structure and was established in or about 1961. The pumphouse contains the well, flow meter, chlorine analyzer and alarms, pressure tank, chlorine injection pump and sampling tap. This well supplies water through a municipal distribution system to 15 customers and the Municipal Community Hall. An EA study has been done and a revised application for upgrades has been submitted. Upgrades have begun at the old concession booth for the relocation of the well house.</p>					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220007837	McClinchey Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater	1
Number of Surface Water Intakes	Comments					
0	A small pumphouse located at 79256 Fuller Drive. The building contains the well head. The distribution system consists of some year round as well as seasonal customers. A new pumphouse was constructed next to the existing old one. This was built prior to Central Huron acquiring this system. In the latter part of 2006, the following equipment was put in the new pumphouse: flow meter, sodium silicate and chlorine injection pumps, process piping, three new pressure tanks, chlorine analyser and alarms. Contact time is in the driveway to the pumphouse.					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220007793	Kelly Well Supply	Central Huron, Municipality of	Central Huron, Municipality of	Groundwater	1
Number of Surface Water Intakes	Comments					
0	The Kelly Well Supply is located at 33823 Fullerview Circle and was established in 1983. The concrete block pumphouse contains 3 pressure tanks, flow meter, sodium silicate pump and a sodium hypochlorite pump. There is a chlorine analyzer with the associated alarms. The well head is located outside the pumphouse. The distribution system is made up of residential homes who are mostly year round customers.					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type	Number of Wells
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existing)					(surface, ground, both)	
Existing	220001487	Brussels Well Supply	Huron East, Municipality of	American Water Services Canada	Groundwater	2
Number of Surface Water Intakes	Comments					
0	Brussels Well #1 pump house located at 66 McCutcheon Street Brussels contains a 60 m deep, 250 mm dia. steel casing well with a submersible pump rated for 12.6 L/s. After chlorination by sodium hypochlorite injection this well discharges to a single cell reservoir with a capacity of 568 m3. Distribution pumps include an electric centrifugal rated at 12.6 L/s and a fire duty electric pump rated at 63 L/s at 21.3 m TDH. Brussels Well #2 pump house located at 238 Turnberry Street Brussels contains a 60 m deep, 250 mm dia. steel casing well with a vertical line shaft pump rated for 12.7 L/s. Primary disinfection is accomplished by an ultraviolet reactor, secondary disinfection by sodium hypochlorite injection. This well discharges directly to the distribution system.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220008257	Belgrave Well Supply	Morris-Turnberry, Municipality of	Veolia Water Canada	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001496	Blyth Well Supply	North Huron, Township of	North Huron, Township of	Groundwater	2
Number of	Comments					

Surface Water Intakes	
0	A groundwater supply system serving the Village of Blyth in the County of Huron rated at a maximum daily flow of 1149 m ³ /d consisting of two wells, a reservoir and a High Lift Pumphouse.

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001502	Wingham Well Supply	North Huron, Township of	North Huron, Township of	Groundwater	2
Number of Surface Water Intakes	Comments					
0	A drinking water system serving the community of Wingham in the Township of North Huron, consisting of Well # 4 which is 96.6m deep, 356 mm diameter well equipped with one submersible pump rated 61 L/s complete with an above grade vented discharge head and piping from well to the adjacent reservoir and highlift pumping station. At pumping station and below grade single cell reservoir, Well # 4 has a flowmeter, flow control and isolation valves, chemical injection points, three highlift pumps and a firm capacity continuous chlorine residual analyzer, online turbidimeter, control system to provide control of the various equipment and monitoring, recording and alarming of operational parameters, inlet discharge and interconnecting piping and valves along with associated mechanical and electrical systems. Well # 3 is 102.1 m deep, 323 mm diameter well equipped with one turbine pump, standby diesel, diesel fuel storage tank, one chemical feed pump, one sodium hypochlorite solution storage tank, iron and manganese sequestering facilities consisting of a chemical metering pump, two polyphosphate storage tanks with drip tray, piping & valves, flow meter, discharge to distribution system and associated appurtenances.					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002663	Lucknow Well Supply	Huron-Kinloss, Township of	Veolia Water Canada	Groundwater	2
Number of	Comments					

Surface Water Intakes	
0	The Lucknow Well System consists of two drilled wells that separately feed into a common distribution system, and a water tower. Well # 4 was drilled to an approximate depth of 54.8 meters in 1959, Well # 5 was drilled to an approximate depth of 58.8 meters in 1967. Together they service a population of approximately 1100 people.

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000512	Listowel Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater	3
Number of Surface Water Intakes	Comments					
0	The Listowel water system consists of 3 ground water wells automatically controlled by a Supervisory Control and Data Acquisition (SCADA) system. The pressure in the distribution system is maintained by an elevated reservoir located at 580 Main Street West with a maximum capacity of 3182 m. When the water level in the elevated reservoir drops to a predetermined set point the well pumps automatically start. Two chemical feed pumps at each well also start automatically adding predetermined quantities of Sodium Hypochlorite and Sodium Silicate to the water.					

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003975	Gowanstown Subdivision Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater	1
Number of Surface Water Intakes	Comments					
0	The Gowanstown water system consists of one ground water well housed in a concrete block building located west of Maple Lane. Two new 454 L pre-charged pressure tanks provide pressure to the distribution system					

when the well pump is not operating. When the pressure in the system drops to a predetermined level the well pump automatically starts and recharges the pressure tanks. Two chemical feed pumps also start automatically adding predetermined quantities of Sodium Hypochlorite and Sodium Silicate to the water.
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DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260065260	Atwood Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater	2
Number of Surface Water Intakes	Comments					
0	The Atwood Well Supply receives raw water from Well 1(Danbrook) located adjacent to the pumphouse and Well 2 (Smith) located at 102 Parkview Crescent. All treatment of raw water from both sources takes place at the Atwood pumphouse where Sodium Hypochlorite is added for disinfection and Sodium Silicate is added for iron sequestering. The treated water is discharged to a reservoir. Three high lift pumps deliver the treated water from the reservoir to the distribution system via five hydropneumatic pressure tanks. The hydropneumatic tanks reduce the cycling of the high lift pumps and maintain pressure within the distribution system.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000077	Harriston Well Supply	Minto, Town of	Minto, Town of	Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells

Existing	22000059	Palmerston Well Supply	Minto, Town of	Minto, Town of	Groundwater	3
Number of Surface Water Intakes	Comments					
0						

DWS Type (planned or existing)	DWS Number	DWS Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260034996	Molesworth Well Supply	North Perth, Municipality of	North Perth, Municipality of	Groundwater	1
Number of Surface Water Intakes	Comments					
0	The Molesworth Water System has 43 service connections and consists of a drilled well, a chlorination system using sodium hypochlorite, an iron sequestering system using sodium polyphosphate, a flow meter, 4 large pressure tanks, and chemical dosing pumps. When pressure drops in the distribution system to a predetermined level, the well pump automatically starts and recharges the pressure tanks. Two chemical feed pumps also start automatically adding predetermined quantities of Sodium Hypochlorite and Sodium Silicate to the water.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Planned	220001511	Seaforth Well Supply	American Water Canada Corporation	Huron East, Municipality of	Groundwater	3
Number of Surface Water Intakes	Comments					
0	The Seaforth Well Supply will be comprised of three wells (PW1, PW2, and TW1) all located in the Maitland Valley Source Protection Area.					

Detailed Information on Fully or Partially Exempted Drinking Water Systems

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001511	Seaforth Well Supply	American Water Canada Corporation	Huron East, Municipality of	Groundwater	3
Number of Surface Water Intakes	Comments			Exemption Description		
0	<p>The Seaforth Well Supply is comprised of three wells: two wells on Welsh Street in the Maitland Valley Source Protection Area and the Chalk Street well in the Ausable Bayfield Source Protection Area. The Welsh Street Well pump house located at 30 Welsh Street, Seaforth consists of 2 wells within 4 metres of each other. The main well is 86 m deep, 300 mm dia. Steel casing with a pump rated for 34.7 L/s. After chlorination by sodium hypochlorite injection this well discharges directly to the distribution system. The second well on this site is 159 mm in dia. Steel casing submersible pump rated at 12 L/s.</p>			<p>All three wells will be decommissioned within the next 5 years.</p>		

Appendix B: Municipal Resolutions

RECEIVED JAN 28 2009



MUNICIPALITY OF HURON EAST

P.O. Box 610, 72 Main Street South, Seaford, Ontario N0K 1W0
Tel: 519-527-0180 Fax: 519-527-2561

www.huroneast.com

Jack McLaughlin, Clerk-Administrator
jrmclachlan@huroneast.com

Brad Knight, Treasurer-Finance Manager
bknight@huroneast.com

January 23rd, 2009.

Ministry of the Environment,
Source Protection Approvals Branch,
2 St. Clair Avenue West, 8th Floor,
Toronto, ON M4V 1L5

Attention: Debbie Scaulon, Program Analyst
Source Protection Approvals Section

Dear Ms. Scaulon:

RE: Decommissioning – Seaford Wells

Further to our previous correspondence and conversations concerning the Seaford Well Supply and the Municipality of Huron East's intentions regarding decommissioning of certain wells associated with that system in the future.


Kindly be advised that this matter was discussed by the Municipal Council of the Corporation of the Municipality of Huron East at their regular meeting on January 20th, 2009 and the following motion was passed.

It was duly moved and seconded:

That Council of the Municipality of Huron East intends to decommission the three existing wells (one at Chalk Street, two at Welsh Street, Seaford's Ward) within the next five years; and intends to cancel any permit to take water under the *Ontario Water Resource Act* for these three wells.
Motion Carried.

Trusting this is the authorization required for the Ausable Bayfield Maitland Valley Source Protection Committee to move forward with their Terms of Reference. If we can be of any further assistance in regards to this matter, please do not hesitate to contact this office.

Yours truly,


J. R. McLaughlin,
Clerk-Administrator.

JRM:ju

✓ c.c. ABMV Source Protection Committee

Appendix C – Scope of Work: Assessment Report

Assessment Report Tasks	Description	Methodology	Lead	Confirmed	Estimated Completion Date	% Complete
Source Protection Committee Project Management and Coordination	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.	The Source Protection Committee through the Source Protection Authorities has hired core staff to undertake this role.	SPA	Y	May 2010	n/a
Communications	Local area engagement, outreach and creation of communications products that support the assessment report process.	Through the SPC, staff are producing materials to meet legislative obligations and provide education and outreach to the public and key stakeholders.	SPA	Y	May 2010	n/a
Information management	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.	Through the SPC, staff are maintaining the hardware and software to meet legislative obligations for both information sharing and protection of privacy.	SPA	Y	May 2010	n/a
Watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	This work was completed over the past three years and has been received by the SPC	SPA	Y	Completed April 2008	100
Water Budget						
Conceptual Water Budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g., proportion of urban vs. rural uses), human-made structures (e.g., dams, channel diversions, water crossings), and water takings. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	This work has been completed over the past three years and will be received by the SPC by May 2008	SPA	Y	Completed April 2008	100%
Tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.			Y		95%
Tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	Tier 2 work was required on 2 sub-watersheds near Goderich. This may result in a Tier 3 analysis of these areas.	SPC	Y	June 2009	n/a
Tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.			N	TBD	n/a
Regional Groundwater Vulnerability						
Delineate Highly Vulnerable Aquifers (HVA)	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	Additional ongoing studies include: Sinkhole investigations Seaforth radionuclide well investigations Base flow and water quality data collection Climate trends implications	SPC	Y	May 2009	0
Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.			Y	August 2009	0
Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in highly vulnerable aquifers. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.			Y	August 2009	0

Identifying issues, inventorying threats and assessing hazards in SGRAs/HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	This work will have started in 2008 and continue on. The project hydrogeologist will direct this work. Once the delineation has been completed, additional tasks relating to scoring may be outsourced.	SPC	Y	June 2009	0
Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in significant groundwater recharge areas. Delineating the location and extent of the significant recharge area in the source protection area and applying a vulnerability score. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.		SPC	Y	August 2009	0
Municipal Residential Drinking Water Systems on Groundwater						
Delineate Wellhead Protection Areas (WHPA)	Delineating the location and extent of the vulnerable area around a drinking water system in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these vulnerable areas may be required. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	These tasks (to the Tier 1 Risk Assessment level) have been outsourced to a consortium of consultants. A steering committee comprised of staff from the nine municipalities has been in place since the start of the project in 2006. While the delineation tasks have been completed for some time, it is anticipated that this work will conclude by fall 2009. The timeframe is dependant on the release of a database tool under construction at the Ontario Ministry of the Environment. A Tier 2 Risk Assessment is proposed for 2010. This would be a parcel by parcel implementation of the database tool on those properties where a significant risk score is likely. Each property would be visited to verify data and include factors which mitigate or manage the possible risk. The suggested approach would be a joint visit from conservation authority staff knowledgeable about stewardship and the Municipal Risk Management Official. This would assist a land owner in addressing Risk Management Planning and the municipality by providing current information.	SPC	Y	May 2009	100
Identifying issues, inventorying threats and assessing hazards in WHPAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in wellhead protection areas. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.		SPC	Y	June 2009	100
Assess risk in WHPAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in wellhead protection areas. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.		SPC	Y	June 2009	0
Municipal Residential Drinking Water Systems on Surface Water						
Delineate Intake Protection Zones (IPZ)	Delineating the location and extent of the vulnerable area around a drinking water system in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these vulnerable areas may be required. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	These tasks (to the Tier 1 Risk Assessment level) have been outsourced to a consortium of consultants. One group for Goderich and another for the Port Blake Intakes. A steering committee comprised of staff from the lead municipality and core SP staff has been in place since the start of the project in 2006. While the delineation tasks have been completed for some time, it is anticipated that this work will conclude by fall 2009. The timeframe is dependant on the release of a database tool under construction at the Ministry of the Environment. A Tier 2 Risk Assessment is proposed for 2010. This would be a parcel by parcel implementation of the database tool on those properties where a significant risk score is likely. Each property would be visited to verify data and include factors which mitigate or manage the possible risk. The suggested approach would be a joint visit from conservation authority staff knowledgeable about stewardship and the municipal risk management official. This would assist a land owner in addressing risk management planning and the municipality by providing current information.	Goderich London (Lake Huron Supply)	Y	May 2009	80
Identifying issues, inventorying threats and assessing hazards in IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in intake protection zones. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.		Goderich London (Lake Huron Supply)	Y	May 2009	10
Assess risk in IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.		Goderich London (Lake Huron Supply)	Y	June 2009	0
Consultation on the overall proposed assessment report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed assessment report. Details on how to complete this task are available in the Assessment Report Technical Rules and guidance.	It is proposed that the core staff will coordinate this on behalf of all parties and generate the educational and notice materials	SPC	Y	April 2010	
Development of Assessment Report		It is proposed that the core project staff will be required to integrate the ground water and surface water reports to develop the Assessment Report for the SPC to consider.	SPC	Y	May 2010	

Appendix D – Scope of Work: Source Protection Plan

Source Protection Plan Tasks	Description	Methodology	Lead	Confirmed	Expected Completion Date
Source Protection Committee Project Management and Coordination	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.	Core staff of the project are equipped to undertake these tasks and would do so as part of the overall project management	SPA	Y	Mar 2009 - Fall 2011
Communications	Local area engagement, outreach and creation of communications products that support the source protection plan process.				
Information Management	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.				
Administrative priority setting of work required to complete SPP based on risk assessments in AR	Administrative priority setting and strategic planning for the management of the work required to complete the source protection plan based on results of risk assessments documented in the assessment report. It is anticipated that the number of significant threats, the distribution and location of the threats, etc., may guide the committee in how it will specifically create the plan (e.g., which threats in which vulnerable area will be addressed first), who will be the key players in the plan development, and how they wish to prioritize the work required. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document.				
Source Protection Plan					
Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document.	It is proposed that the planning departments of the upper tier municipalities or lower tiers where applicable, create a steering committee to devise a Request for Proposals (RFP) and manage a consulting project to review source protection policies from around the area, province, country and globe. These policies would then be evaluated against local need (based on vulnerable areas, classes of land uses and activities). Draft policies for all those areas stipulated in the <i>Clean Water Act</i> would then be brought to the Source Protection Committee for their consideration.	SPC	Y	June 2012
Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document.				
Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies." Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document.				
Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document.				
Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plans.				
	Details on how to conduct the consultations on the overall proposed source protection plans will be provided in the Source Protection Plan regulation and guidance document.				

Appendix E: Notice of ToR Commencement



NOTICE

To: Warden/Mayor/Reeve and Council
Municipal and County CAOs and Clerks
Ausable Bayfield Maitland Valley Source Protection Region

From: Larry Brown, Chair, ABMV Source Protection Committee
Cathie Brown, Project Manager, ABMV Drinking Water Source Protection

Date: January 7, 2008

Re: **Notice under O. Reg 287/07 Terms of Reference for Drinking Water Source Protection in the Ausable Bayfield Maitland Valley (ABMV) Source Protection Region**

We are writing to advise your municipality about the upcoming preparation of a Terms of Reference for drinking water source protection activities in the Ausable Bayfield Maitland Valley Source Protection Region. This letter serves as a notice under Ontario Regulation 287/07.

Background

The *Ontario Clean Water Act, 2006* and some of the associated Regulations that passed in July 2007 have prompted the formation of the Ausable Bayfield Maitland Valley Source Protection Committee. The mandate of this committee is to develop Source Protection Plans to help ensure the protection of clean and plentiful municipal drinking water sources. Five of the 15 committee members are municipal representatives and one of the two community representatives is also a municipal councillor.

Over the past three years the Ausable Bayfield and Maitland Valley Conservation Authorities have, most recently as Source Protection Authorities under the Clean Water Act, worked with local municipalities and others on background information and scientific research that that will be the foundation of our local Source Protection Plans.

The next step is for the Source Protection Committee to prepare a Terms of Reference document by August 2008. This process will commence in January. Each municipality will be contacted to discuss the consideration listed below, and a municipal meeting will

Ausable Bayfield Maitland Valley Source Protection Region
c/o Ausable Bayfield Conservation Authority
71108 Morrison Line
Exeter, ON N0M 1S5

Tel 519.235.2610
Fax 519.235.1963
Toll Free 1.888.286.2610
www.sourcewaterinfo.on.ca

be held in the late winter. After consultation with municipalities, a draft Terms of Reference will be crafted. Once drafted, this document will be circulated to municipalities within our region for comments.

Purpose of the Terms of Reference

The purpose of the Terms of Reference is to document the proposed work plan to complete Assessment Report and Source Protection Plans. The allocation of work and the associated costs will be itemized within the Terms of Reference. At this time, the Drinking Water Source Protection Project focuses on municipal residential drinking water systems. We have attached to this letter a list of municipal residential drinking systems that are located within your municipality, along with a map of your municipality with the locations of municipal residential drinking water systems.

Municipal Considerations

Our discussions with each local municipality about the Terms of Reference during the upcoming months will include a request for you to please respond to the four questions listed below at your earliest convenience:

1. *Who will be the contact person within your municipality for future correspondence?*

Please provide a name, title and email address.

2. *Does your Council wish to pass a resolution that would "elevate" other drinking water systems into the scope of source protection planning?*

While the focus of this program is municipal residential drinking water systems, a municipality may elevate other systems to be included in the Source Protection Plans, which would not otherwise be included. These other systems may include:

- (1) intakes and wells that service facilities such as community centres and schools, and other public facilities which provide drinking water, and
- (2) clusters of private intakes and wells such as settlements, rural subdivisions, and shoreline communities (see O. Reg 286/07 Miscellaneous enclosed).

Further guidance regarding the elevation of these systems will be forthcoming. It is important to note that a system may be elevated through amendment to the Terms of Reference at a later date. We note further that the implications of elevating such systems are not clear at this time.

3. *Is your Council anticipating any new municipal drinking water system or major changes to existing systems?*

4. Does your municipality have a long-term water supply strategy and may we receive a copy? If not, may our staff contact you to gather information regarding:

- Total Average Day Demand
- Maximum Average Day Demand
- ICI (Industrial/Commercial/Institutional) Average Day Demand
- Projected Losses (as a percentage of Domestic and ICI)
- Maximum Day Factor

Other Source Protection Committee Considerations:

The Clean Water Act requires that in addition to municipal drinking water systems, areas of significant groundwater recharge and highly vulnerable aquifers be included. We must also consider all existing Great Lakes Agreements. At this time we are awaiting further guidance from the province on these considerations.

We look forward to working with our local municipal partners early in 2008 as we work through this process. Thank you for your ongoing assistance with drinking water source protection. If you have any questions please contact Source Protection Committee (SPC) Chair Larry Brown at 519-238-8338 or via email at spcchair@sourcewaterinfo.on.ca, or Project Manager Cathie Brown at 519-235-2610 or email at cbrown@abca.on.ca.

Sincerely

Larry Brown
Chair,
Source Protection Committee

Cathie Brown
Project Manager,
Drinking Water Source Protection

C.c. Ausable Bayfield Maitland Valley Source Protection Committee Members and Liaisons
Ausable Bayfield Maitland Valley Source Protection Authority Members
Municipal, public health, and public utility staff contacts,
Lake Erie Source Protection Region
Thames, Sydenham & Region Source Protection Region
Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region

Appendix E: Notice of Public Opportunities


Notice of Public Meeting

Regarding the Draft Proposed Terms of Reference

The Annisle Bayfield Maitland Valley Source Protection Committee would like to receive your input on their Draft Proposed Terms of Reference at a public meeting on **Wednesday, May 28, 2008**.

The Terms of Reference is a work plan to guide the creation of an Assessment Report and the Source Protection Plans; it includes municipal, Source Protection Committee, and Source Protection Authority responsibilities, timelines, costs and lists which drinking water systems will be included in the plans.

To find out if you live in the Annisle Bayfield Maitland Valley Source Protection region visit sourcewaterinfo.on.ca and click on the "Maps" tab or contact us at 519-335-3557 or toll-free at 1-888-286-2610.



**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Annisle Bayfield
Maitland Valley
Source Protection
Region

Copies of the Draft Proposed Terms of Reference are available for viewing at the following county and municipal offices:

Huron-Kitchener, Ripley
Lambton, Shores, Forest
County of Perth, Stratford
North Woodless, Parkhill
Town of Minto, Harriston
County of Huron, Goderich

The document is also available online at www.sourcewaterinfo.on.ca.

If you would like to make a presentation at the public meeting call Chris Van Esbroeck at 519-335-3557 or toll-free at 1-888-286-2610 by May 23 to schedule a time.

The public is welcome to submit written comments regarding the draft proposed ToR during a 35-day comment period which ends June 10, at 4:00 p.m. local time. Feel free to mail your comments to:

ABMV Source Protection Region, c/o Annisle Bayfield Conservation Authority,
71108 Montrose Lane, R.R. #3 Exeter, Ontario N0M 1S5

Formal Public Meeting

Location: The White Carnation Restaurant and Banquet Hall, south edge of Holmesville on Cty. Rd. #31 (R.R.#3 Clinton, Ontario, N0M 1L0)
Date: Wednesday, May 28
Time: 6:00 p.m.

Public Open Houses

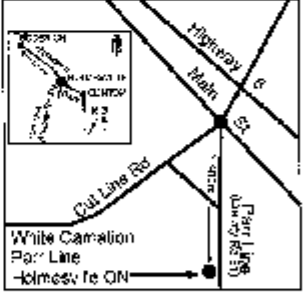
In advance of the public meeting there will be three open houses held across the region. These open houses will give local residents a chance to learn about the Source Protection Planning process.

Wingham
Location: The Hot Stove Lounge, Wingham, North Huron Westcast Community Complex
Date: Wednesday, May 21 **Time:** 4:00 p.m. to 6:00 p.m.


Parkhill
Location: Parkhill Community Centre
Date: Thursday, May 22 **Time:** 4:00 p.m. to 6:00 p.m.

Varna
Location: Stanley Complex (Varna Hall)
Date: Saturday, May 24 **Time:** 10:00 a.m. to 12:00 p.m.

Questions?
Contact: Chris Van Esbroeck at 519-335-3557 or vanesbroeck@mvaa.on.ca or phone toll-free at 1-888-286-2610



White Carnation
Park Line
Holmesville ON



Made possible through funding support from the Government of Ontario.

Appendix E: Notice of ToR Available for Public Comment

Notice

Proposed Terms of Reference approved, now available for viewing and comment

The Ausable Bayfield Maitland Valley Source Protection Committee approved on July 30, 2008, a Proposed Terms of Reference to be submitted to the Ontario Minister of the Environment. This work plan, upon provincial approval, will guide the committee's work preparing Assessment Reports and Source Protection Plans for the Source Protection Region.

The Proposed Terms of Reference is available for viewing online at sourcewaterinfo.on.ca

To view hard copies of the document please contact the Maitland Valley or Ausable Bayfield Conservation Authorities at **519-335-3557, 519-235-2610** or toll-free **1-888-286-2610**.

You have an opportunity to provide comments on the Proposed Terms of Reference to your local Source Protection Authority. Please provide your comments in writing by **4 p.m. on Friday, September 5, 2008**, to either:

Ausable Bayfield CA/SPA
71108 Morrison Line,
RR 3 Exeter, ON
N0M 1S5
Attn: Tim Cumming
tcumming@abca.on.ca
Fax: 519-235-1963

Maitland Valley CA/SPA
1093 Marietta Street,
P.O. Box 127, Wroxeter, ON
N0G 2X0
Attn: Jayne Thompson
jthompson@mvca.on.ca
Fax: 519-335-3516

Appendix E: Stakeholder Engagement Timeline of Completion

Regulatory Process	Completion Date	Done By
Municipal council resolutions have been passed agreeing upon work.	2006	SPCommittee
Notify municipal clerks on the commencement of the terms of reference	2008-Jan-07	SPCommittee
Notify band Chiefs on the commencement of the terms of reference	2008-Jan-14	SP Committee
Notice for consultation on draft proposed ToR includes information on public meeting scheduled at least 21 days after newspaper notice is published.	2008-May-07	SPCommittee
Make the draft proposed terms of reference available at other locations.	2008-May-07	SPCommittee
Post draft proposed terms of reference on Internet.	2008-May-07	SPCommittee
Provide a copy of draft to the chiefs of bands whose reserves are located in the source protection area.	2008-May-07	SPCommittee
Provide a copy of draft proposed terms of reference to the clerks of municipalities located in the source protection area.	2008-May-07	SPCommittee
Provide copy of draft proposed ToR to chairs of SPCs who have been listed in table that describes matters that affect other source protection areas.	2008-May-07	SPCommittee
Publish newspaper notice to publicly view draft proposed ToR on Internet and at other locations (as determined by the source protection committee).	2008-May-07	SPCommittee
Notice for consultation on draft proposed ToR includes requests for comments submitted within 35 days of notice published in the newspaper.	2008-May-07	SPCommittee
Make provisions to consider Great Lakes Agreements.	2008-Jun-01	SPCommittee
Give copy of draft proposed ToR to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing/implementing RAPs & LaMPs.	2008-Jun-13	SPCommittee
Provide a copy of proposed terms of reference to the source protection authority.	2008-Aug-20	SPCommittee
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.	2008-Oct-20	SPAuthority
Make the proposed terms of reference available at other locations.	2008-Sep-03	SPCommittee
Post proposed terms of reference on the Internet for 30 days.	2008-Sep-03	SPCommittee
Provide a copy of proposed terms of reference to the chiefs of bands whose reserves are located in the source protection area.	2008-Sep-03	SPCommittee
Provide a copy of proposed terms of reference to the clerks of municipalities located in the source protection area.	2008-Sep-03	SPCommittee

Receive comments from the 30 day Internet posting from the public, municipalities, bands, and other stakeholders.	2008-Oct-02	SPAuthority
Give a copy of the comments on proposed terms of reference to the source protection committee.	2008-Oct-20	SPAuthority
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.	2008-Oct-20	SPAuthority