



Approved Terms of Reference
for the
Assessment Report and Source Protection Plan
Sault Ste. Marie Region Source Protection Area

February 5, 2009

Under the Clean Water Act, 2006 (Ontario Regulation, 385/08)



Preface

This document is a plain language guide to the Terms of Reference. The Guide provides an overview of the planning area, the work and the process/schedule for preparing an assessment report and source protection plan for the Sault Ste. Marie Region Source Protection Area. For more details on the listed information, please review the Terms of Reference.

Table of Contents

Preface	2
Table of contents.....	3
Glossary of Terms	4
Source Protection Committee Mission Statement	6
Background	6
How does this affect me?	6
The Source Protection Committee (SPC)	7
Source Protection Authority (SPA)	7
Working Groups	7
Staff Support	8
Source Protection Program	8
Our Source Protection Area	10
Map of Sault Ste. Marie Region Source Protection Area	11
Where do we get our drinking water?	12
Sault Ste. Marie Region Source Protection Time Line	12
Terms of Reference (ToR)	12
Assessment Report	13
Source Protection Plan (SPP)	13
Education & Stewardship	13
Community Engagement and Submitting Feedback	14

Glossary of Terms

Assessment report means a technical document that is prepared by a SPC under Section 15 of the Clean Water Act, 2006 (and forthcoming regulations) to record its knowledge of a source protection area, and to rank risks to drinking water within that area. Each report is approved by the Ontario Ministry of the Environment.

Clean Water Act, 2006 means the legislation passed by the Ontario government outlining the rules and regulations for the Drinking Water Source Protection program. Its purpose "to protect existing and future sources of drinking water."

Drinking water means (a) water intended for human consumption or (b) water that is required by an Act, regulation, order, municipal by-law or other document issued under the authority of an Act, (i) to be potable, or (ii) to meet or exceed the requirements of the prescribed drinking water quality standards.

Drinking water system means a system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and that includes, (a) any thing used for the collection, production, treatment, storage, supply or distribution of water, (b) any thing related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system, and (c) a well or intake that serves as the source or entry point of raw water supply for the system.

Drinking water threat means an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water.

Highly vulnerable aquifer means an area where (a) water is conveyed through the ground and (b) pollutants on the surface could readily enter the groundwater and contaminate it.

Intake protection zone (IPZ) means the area of land and water that contributes source water to a drinking water system intake within a specified distance, period of flow time (for example, two hours), and/or watershed area.

MOE means the Ontario Ministry of the Environment

Risk means the likelihood of a drinking water threat (a) rendering a drinking water source impaired, unusable or unsustainable, or (b) compromising the effectiveness of a drinking water treatment process, resulting in the potential for adverse human health effects.

Safe Drinking Water Act, 2002 (SDWA) means the legislation passed by the Ontario government which recognizes that the people of Ontario are entitled to expect their drinking water to be safe and provides for the protection of human health and the prevention of drinking water health hazards through the control and regulation of drinking water systems and drinking water testing.

Significant groundwater recharge area (SGRA) means an area in which (a) there is a high volume of water moving from the surface into the ground and (b) groundwater serves as either source water or the water that supplies a coldwater ecosystem.

Source protection means a program of education, stewardship, planning, infrastructure, and regulation activities that together serve to help prevent the contamination or overuse of source water.

Source protection area means those lands and waters that have been defined under Ontario Regulation 284/07 as the “study area” for an assessment report and a source protection plan under the Clean Water Act, 2006.

Source protection authority (SPA) means a conservation authority or other person or body that is required to exercise powers and duties under the Clean Water Act, 2006. The Sault Ste. Marie Region Source Protection Authority is composed of the Board of Directors of the Sault Ste. Marie Region Conservation Authority.

Source protection committee (SPC) means a group of individuals who have been appointed under the Clean Water Act, 2006 by a source protection authority to coordinate source protection activities for a source protection area. The Sault Ste. Marie Region Source Protection Committee is composed of a provincially appointed Chair (Mr. Subhash Verma, P. Eng.), plus eight other members who were appointed by the Sault Ste. Marie Region Source Protection Authority. Three members represent municipalities, two members represent the aggregate and water distribution sector, and three members represent other interests such as the environmental sector and the public. The Source Protection Committee also includes four non-voting representatives from: (1) the Sault Ste. Marie Source Protection Authority, (2) Algoma Public Health (3) Ontario Ministry of the Environment (4) Batchewana First Nation.

Source protection plan (SPP) means a document that is prepared by a source protection committee under Section 22 of the Clean Water Act, 2006 (and forthcoming regulations) to direct source protection activities in a source protection area. Each plan is approved by the Ontario Ministry of the Environment.

Source protection region (SPR) means two or more source protection areas that have been grouped together under Ontario Regulation 284/07.

Source water means untreated water that is found in groundwater aquifers and surface water lakes and rivers that is used to supply a drinking water system.

Tier 1 Water Budget means the simplified, structured means to estimate water flow volumes and compared to consumptive demand.

Tier 2 Water Budget means the use of more detailed and complex tools to estimate water flow volumes and to compare them to consumptive demand.

Vulnerable area means (a) a significant groundwater recharge area, (b) a highly vulnerable aquifer, (c) a surface water intake protection zone, or (d) a wellhead protection area.

Water budget means a description and analysis of the overall movement of water within each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban versus rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings.

Watershed means the area of land that contributes water to a lake, river, or stream.

Watershed characterization means a general description of the watersheds, communities, source water, drinking water systems, patterns of water use, and drinking water problems within a given source protection area.

Wellhead protection area (WHPA) means the surface and subsurface area surrounding a well that supplies a drinking water system, through which contaminants are reasonably likely to move so as to eventually reach the well.

Source Protection Committee Mission Statement

The Mission of the Sault Ste. Marie Region Source Protection Committee, in cooperation with local and provincial authorities, is to develop and maintain a science-based regulatory framework that aims to protect the quality and quantity of drinking water sources for residents of Sault Ste. Marie and area.

Background

The *Clean Water Act, 2006* (CWA) was brought into effect in October 2006 and its first set of regulations were passed on July 3, 2007. The CWA and its five associated regulations provide a framework for establishing a Source Protection Committee (SPC) and boundaries for our study area or Sault Ste. Marie Region Source Protection Area (source protection area). Essentially, the CWA was passed to ensure safe clean drinking water across Ontario today and for future generations. By managing the watershed, we can protect our drinking water at the source, before it enters our drinking water system. In the multi-barrier approach, the barrier to ensure the safety of water, source protection, is the most important.

How does this affect me?

Everyone needs drinking water to survive. In May 2000, in Walkerton, Ontario, contaminated municipal drinking water took the lives of seven and resulted in 2300 other residents becoming ill. It is important to be aware of where your drinking water comes from, what we can do to protect our water sources and what activities or land uses can put our water resources at risk. Such decisions need to be based on facts and good science. Towards that goal, technical work such as watershed characterizations and water budgets need to be completed. Watersheds are the lands and waters that drain into a common waterway or water body like a river or a lake.

We need to prevent risks that can spoil our water resources and know how we can prevent such tragedy from happening here. Government agencies can fund and conduct technical studies but the residents living within the watershed determine the quality and sustainability of their drinking water sources. It is your responsibility to learn how you can make a difference; learn about how your daily activities impact the watershed. Protecting our



water at its source is our first line of defense against future contamination. We all have a role to play. Do you know what your role is?

The CWA may alter the way we manage our watershed in regards to the City's Official Plan and zoning by-laws near our wells, our surface water and our drinking water sources for municipal use through the development of a Source Protection Plan (SPP). By participating and submitting comments, attending open houses and keeping informed as the SPC develops a SPP you are helping to ensure clean safe drinking water for you and future generations.

The Source Protection Committee (SPC)

The SPC has local municipal, economic, First Nation, non-profit and public at large representation. The composition and size of the committee is regulated by the Province of Ontario and determined by the size of the source protection area. As per the CWA, the source protection committee member composition consists of 1 Chair, 3 municipal, 3 sectoral and 3 'other' representatives from within the source protection area. There is also a seat reserved for a First Nations member. The Small Business seat is still vacant on the SPC therefore; our current committee consists of one Chair appointed by the Minister of the Environment and eight members who were appointed by the Source Protection Authority (SPA). SPC biographies are available online at the Sault Ste. Marie Region Conservation Authority (SSMRCA) website. Please visit the following link to go directly to the biographies page: <http://www.ssmrca.ca/Section.aspx?ID=186>. The SPC will enlist the public and peer review groups to guide technical study requirements, to ensure input from local municipalities and to provide advice on SPP requirements.

Source Protection Authority (SPA)

Under the CWA the SSMRCA Board serves as the Sault Ste. Marie Region SPA. The role of the SPA is to oversee, review and recommend work done by the SPC. The SPA is responsible for financial management of the SPC and for input on SPC products such as the Assessment Report and SPP. It is the SPA's responsibility to present the Minister of the Environment the legislated deliverables produced by the SPC.

Working Groups

Working groups will be established as needed to review and comment on technical studies including project initiation, draft reports and deliverables and to provide feedback for the project lead to incorporate into the final report.

Staff Support

Staff support for the development of the assessment reports and the SPP includes staff from the SSMRCA. Staff positions dedicated to the SPP includes a project coordinator, water resources engineering technician, communication specialist, a GIS specialist, and an SPC Administrator.

Source Protection Program

As per the CWA, the SPC brings together key stakeholders in our watershed, and is responsible for preparing the main products in the process – the Terms of Reference (ToR), the Assessment Report, and the SPP between 2008 and 2012.

Guiding Principles

There are three key principles guiding source protection planning:

Planning will be watershed-based

First, watershed-based planning will take into account the linkages between local drainage patterns and surrounding land uses. A watershed describes an area where rainfall and snowmelt flow into a network of streams, which drain to a common water body or groundwater aquifer. Drainage patterns may be influenced by elevation, slope, and land cover. Watershed-based planning is a scientifically sound approach to delineating study areas pertaining to water. It is also consistent with the Provincial Policy Statement under the Planning Act that recognizes the importance of planning at the watershed scale in support of protecting, improving and restoring water resources. As a result, the province has been divided into 19 Source Protection Areas and Regions delineated by watershed divides. Within these, the focus will be directed towards vulnerable areas around surface water intakes and groundwater wellheads as well as areas of high recharge.

Decisions will be based on science

Secondly, science will be the foundation of the source water protection initiative from research and planning through to implementation. Technical studies will be conducted using sound scientific methodology and standards so that results are consistent and defensible in order to provide the best available information. Information on past and present conditions will contribute to an understanding of trends over time. Planning and decision-making will also rely on science to provide future direction. Implementation of management practices based on sound scientific information and methodology will contribute towards effective change on the landscape.

Public input in the final plan

Research, planning and implementation will be a collaborative process of municipalities, stakeholders, residents, conservation authorities, and provincial government.

Finally, the success of source protection will be a collaborative effort of municipalities, stakeholders, residents, conservation authorities, and the provincial government. This collaborative effort includes the development of local Source Water Protection Plans, as well as the undertaking of research and studies with respect to the state of water quality and quantity in the watershed. Two key documents, the Assessment Report and the SPP, are to be developed by the local SPC in cooperation with the municipalities and the local SPA.

Objectives of Source Protection Planning

The overall goal of protecting drinking water sources will be addressed through the following objectives:

- Development of locally developed, science-based assessment report to provide a physical overview of the source protection area as well as identify potential threats and issues.
- Definition of a long-term vision for water management in the source protection area. This includes drinking water as well as ecological, heritage, recreational, and commercial interests. This objective will be supported by the development of a locally developed, science-based SPP that will address current and future land use activities in the watershed.

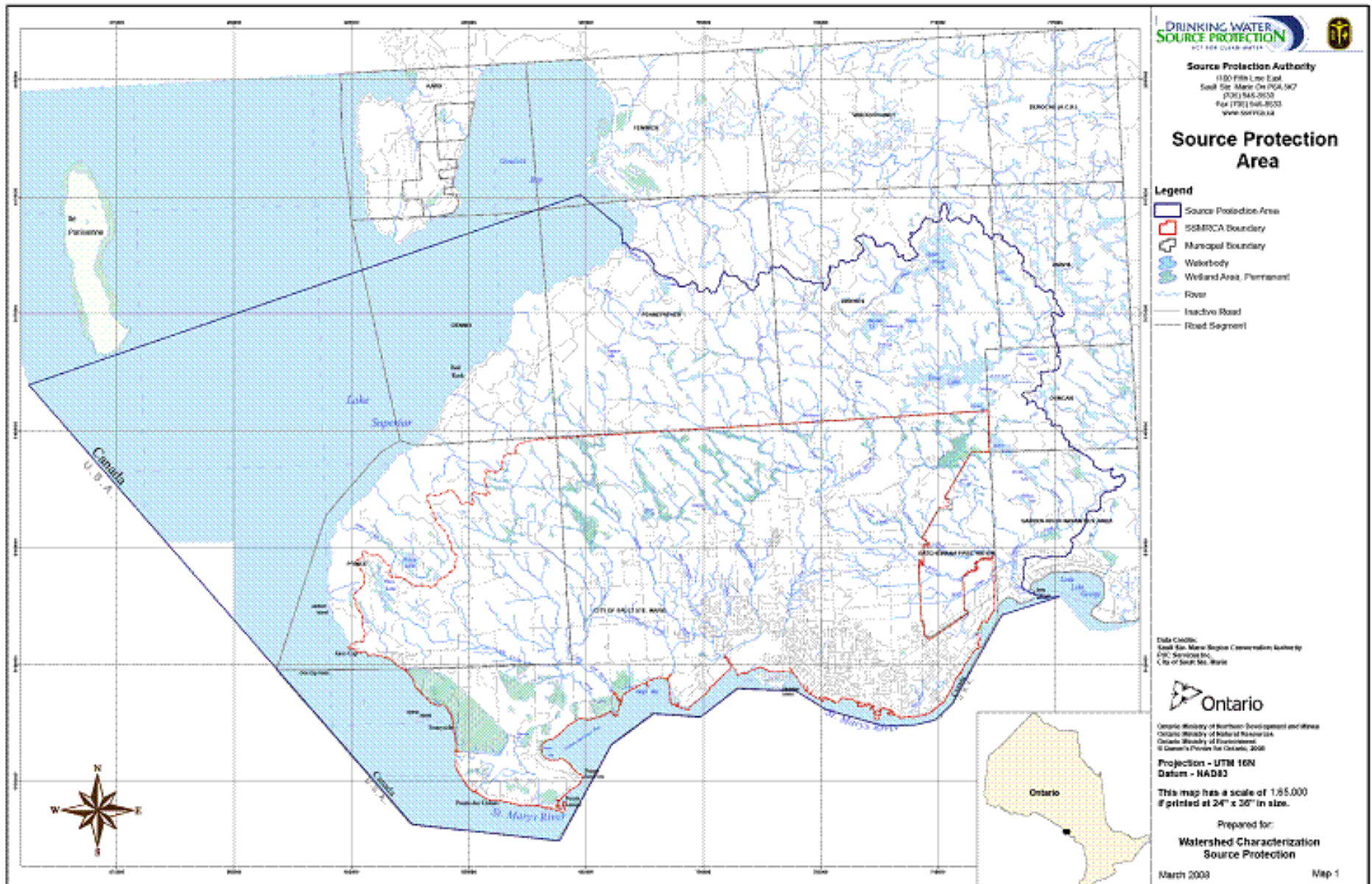
In order to achieve these objectives, the Province of Ontario released regulations to accompany the CWA. Ontario Regulation 287/07 outlines the requirements for how to develop the ToR, the content and the minimum consultation requirements to ensure local input.

Our Source Protection Area

The source protection area is one of 19 regions across Ontario working on a SPP. Our source protection area is in Algoma District along the shore of the St. Marys River and Lake Superior. The planning area includes the City of Sault Ste. Marie, the Township of Prince and portions of the townships of Dennis, Pennefather, Aweres, Jarvis, Duncan and a small area of the Garden River First Nation and the Batchewana First Nation. Lake Superior and the St. Marys River are shared resources of Canada and the United States. The source protection area planning region boundary extends out to the international border along its entire width.

All watersheds within the study area drain southward, and typically drain areas within both the Precambrian uplands and the terraced clay lowlands. A number of smaller subwatersheds are adjacent to the St. Marys River, which flow directly to the river. The Source Protection Planning Area includes the Canadian component of the St. Marys watershed and consists of a number of smaller watersheds each independently draining into both the St. Marys River and Lake Superior. There are 34 subwatersheds associated with 10 major river/creek systems.

Map of Sault Ste. Marie Region Source Protection Area



Where do we get our drinking water?

In general, terms, a Municipal Residential Drinking Water System is a water treatment facility that is either owned and or operated by the municipality to provide drinking water to residents in that community. This may be water from groundwater (wells) or surface water sources like rivers and lakes. SOURCE PROTECTION AREA has one surface water intake on Lake Superior upstream of the St. Marys River. There are six municipal wells, three in the east end and three in the west end of the City of Sault Ste. Marie. Currently, about half of our water supply comes from groundwater and the other half from Lake Superior.



Sault Ste. Marie Region Source Protection Time Line

	2005	2006	2007	2008	2009	2010	2011
Watershed Characterization							
Technical Studies							
Terms of Reference							
Assessment Report							
Source Protection Plan							

Terms of Reference (ToR)

The ToR is essentially a work plan that will guide and inform the SPC and the municipalities through the development of the Assessment Report and the SPP. The ToR will outline the technical studies required, the cost and who will perform the work.

The work described in the ToR is guided by the MOE through guidance modules, Director's rules and regulations. This provincial guidance will provide a level of standardization and consistency across the province pertaining to the technical tasks and who is required to fulfill these tasks in the development of the assessment report and the SPP.

Assessment Report

While interim guidance has been provided by the MOE, the regulation outlining the content requirements and methodology of the Assessment Report has not yet been released. The anticipated date for release of assessment report regulations is June 2008.

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 budgeting across the entire source protection area.

The ToR describes the tasks required for the assessment report including a description of the task, the lead responsibility for the task, cost estimates and timeline. Due to the existing relationship between the SSMRCA and local municipalities, all of the work completed to date has been led by the SSMRCA/ SPA. Where a task has not yet been initiated, the lead needs to be confirmed through the development of the ToR. Once the ToR has been approved by the Minister of the Environment, the local SPC has one year to complete the assessment report for the source protection area.

Source Protection Plan (SPP)

The SPP is a legislated requirement in the CWA that the SPC must develop for the source protection area. Although the CWA provides a general framework for the SPP, the specific details regarding content and methods will only be available once the province develops and enacts a regulation. The anticipated date for a final regulation on the SPP is spring 2009.

The SPP will be a document which specifies the actions required to protect and enhance drinking water sources in the source protection area. The SPC will establish criteria for policy development, priority areas based on the assessment report, along with monitoring and implementation requirements.

The ToR also highlights the principle tasks required for the creation of the SPP. Through the review of the ToR, feedback regarding the extent of municipal participation will be requested from local municipalities on the roles and implementation of these tasks. As the regulation regarding the SPP has not yet been released, cost estimates and timelines are best estimates.

Education & Stewardship

The SSMRCA, DWSP staff and SPC strive to share information with the public. Drinking water staff has been and are able to participate in forums and lectures. Hosting interactive events with a main theme of focus such as the 2007 Children's Source Water Festival at Fort Creek; this is an example of educational opportunity courtesy of the SSMRCA. The festival was enjoyed by 534 local

elementary students thanks to 124 volunteer students from Kewedin Public School, St. Marys College and White Pines and 26 adult volunteers working with SSMRCA staff. The idea is simple; educate children about the importance of our most precious resource, water. SSMRCA's Children's Source Water Festival hosted 25 interactive educational centres based on five basic water themes: Water Protection, Water Conservation, Water Attitude, Water Technology and Water Science.

The SPC will use public engagement opportunity such as open houses as educational opportunities to engage the public and speak to the issues of private wells, septic systems and other pertinent issues affecting the public's drinking water sources. It is crucial to our source protection plan that the public is well-informed on issues that may affect their drinking water. It is the SPCs obligation to utilize every available opportunity.

Community Engagement and Submitting Feedback

This is the first of the three official documents required from the SPC. It is being posted on the Internet and is made available to the public as per Ontario Regulation 287/07 under the CWA. Residents are requested to submit their official written comments by September 19, 2008 about this document. The ToR will be posted for 30 days, from August 20, 2008 until September 19, 2008. Comment sheets are available online on our website or hard copy in our office. Please send your comments by mail, fax or email to:

Loralei Premo, SPC Administrator
Sault Ste. Marie Region Conservation Authority
1100 Fifth Line East, Sault Ste. Marie, ON P6A 5K7
Fax: 705-946-8533 Email: lpremo@ssmrca.ca



Source protection is a community-based process so it is essential that the public have sufficient opportunities to review and comment on the draft version of all major work. Some local residents and stakeholders possess important historical and/or intimate knowledge about local watersheds, knowledge that can contribute credibility and accuracy to local eventual source water protection plan.

For more information, please feel free to visit our website www.ssmrca.ca or contact Loralei Premo. The SPC is your local committee working towards protecting and preserving the quality and quantity of your drinking water sources.