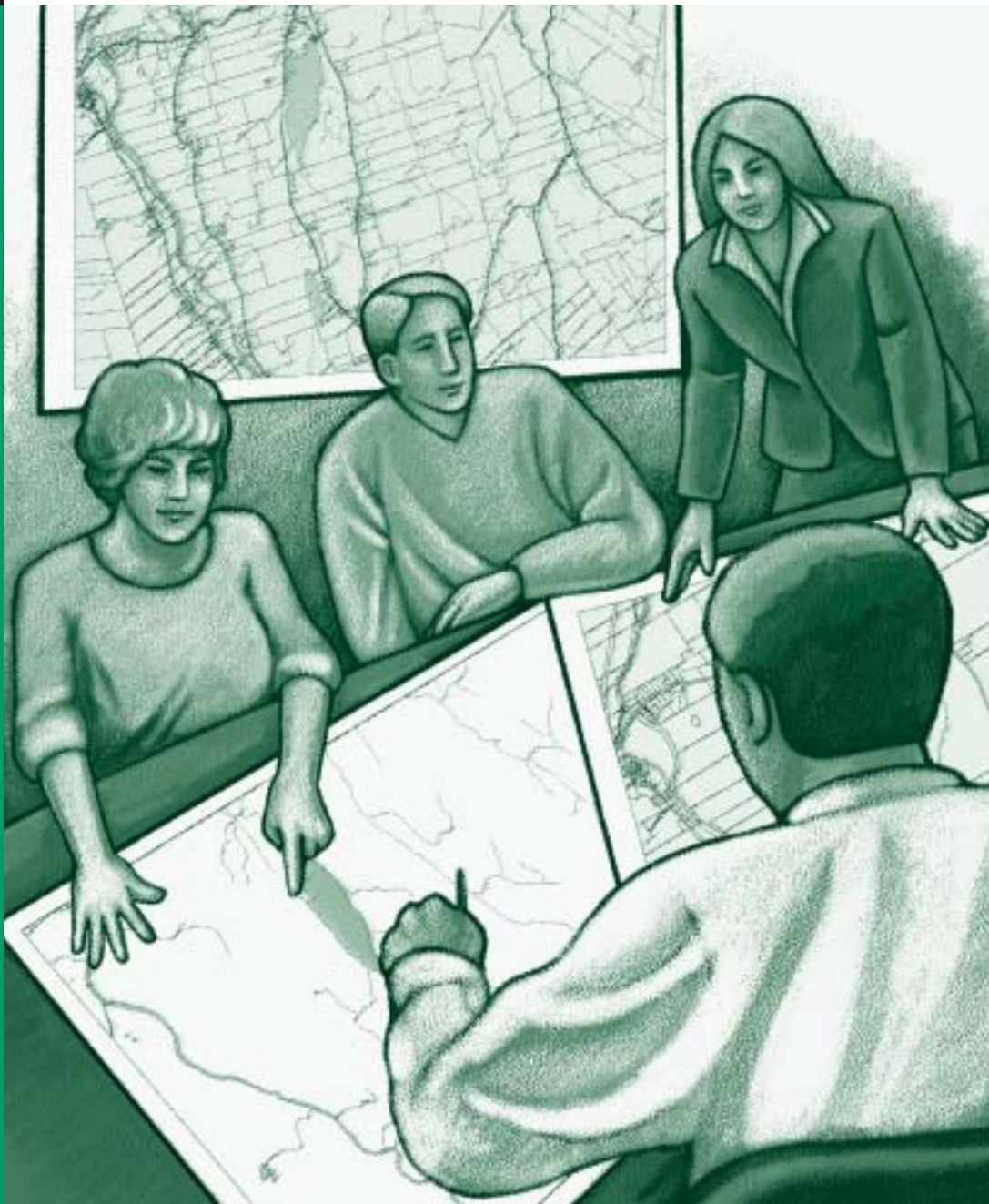




Developing a Municipal Source Water Protection Plan:  
A Guide for Water Utilities and Municipalities

# Step 1

## Form a Source Water Protection Advisory Committee



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### Designing Plans For Source Water Protection In Nova Scotia

*A Drinking Water Strategy For Nova Scotia* describes a multiple-barrier approach to clean, safe drinking water for Nova Scotians. The first line of defence in this multiple-barrier approach is to keep clean water clean. This booklet series describes how water utilities and municipalities can do that. It guides you through the process of developing a source water protection plan for your municipal water supply.

To keep clean water clean, we must protect the source water supply area. This guide describes **Step One** in the process recommended by Nova Scotia Environment and Labour (NSEL) for developing a source water protection plan: Form a Source Water Protection Advisory Committee. The committee is an effective way of getting input and advice from stakeholders. A well-formed committee will mean better relations with customers and other stakeholders.

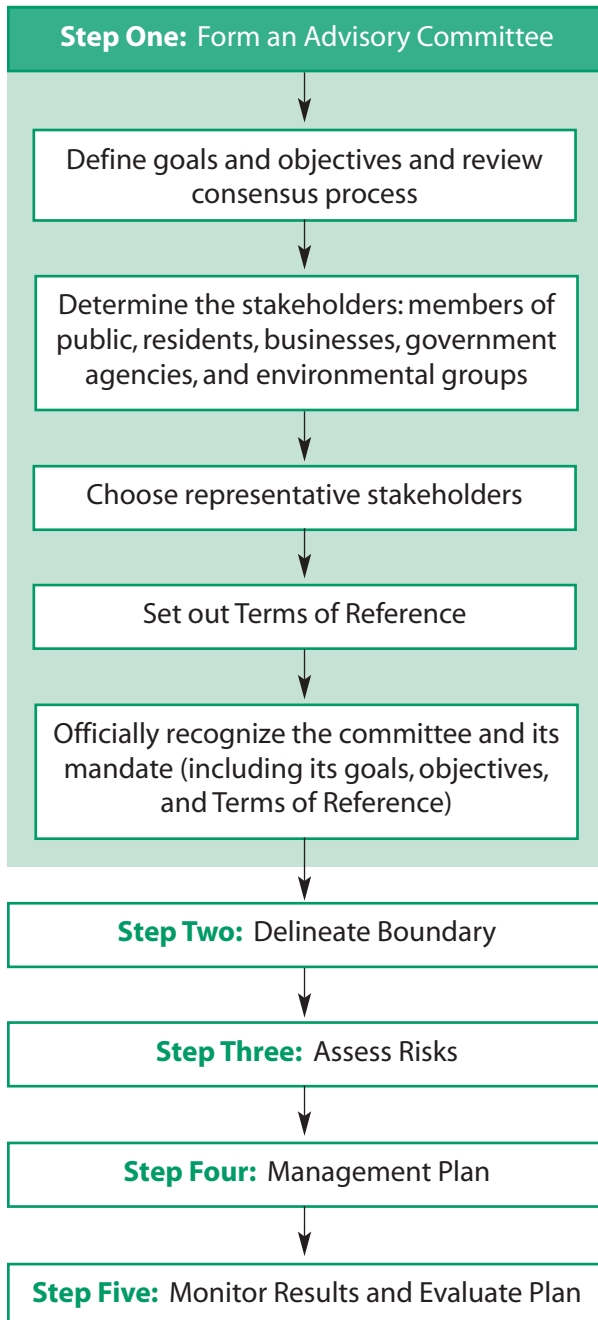
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## Step One Flow Chart

These are the five recommended steps for developing a municipal source water protection plan, and the actions that should be used to form an advisory committee:



## The Importance of Forming a Source Water Protection Advisory Committee

A strong commitment is required at the local level, because source water protection (SWP) employs a combination of management approaches that should be developed in conjunction with community stakeholders. The process should be consensus-driven and contingent on the collaboration of all stakeholders. The communities will be able to carry out mutually beneficial, locally developed and administered SWP programs that achieve the long-term goal of providing high quality drinking water through the cooperation of multiple stakeholders.

The first and most important step in developing a SWP plan is to form a fully representative Advisory Committee. The water utility or municipality should set up the advisory committee, and should champion source water protection. A strong advisory committee will facilitate greatly the development of a source water protection plan and will help to keep the plan focused on its objectives. The composition of the advisory committee should reflect the jurisdictions the supply serves.

The consensus-based approach to addressing issues that relate to water quality must be clearly understood by the advisory committee. They must also clearly understand their roles and responsibilities. Consequently, the mandate of the advisory committee must be clearly defined, including roles of the committee members, their responsibilities, whom they report to, and the length of term. Advice on the composition of the advisory committee, and clarification of the roles and responsibilities of the committee can be provided by Nova Scotia Environment and Labour (NSEL).

## Understanding the Consensus-Based Approach<sup>1</sup>

In a consensus process, representatives of all the necessary interests that have a stake in an issue work together to find a mutually acceptable solution. Successful consensus processes follow several guiding principles:

**Consensus decision-making** - Participants make decisions by agreement rather than by majority vote.

**Inclusiveness** - All necessary interests are represented or, at a minimum, approve of the discussions.

**Accountability** - Participants usually represent stakeholder groups or interests. They are accountable both to their constituents and to the process.

**Flexibility** - Participants design a process and address the issues in a manner they determine most suitable to the situation.

**Shared control** - Participants share responsibility for setting the ground rules for a process and for creating outcomes.

**Commitment to implementation** - The sponsor and all stakeholder groups commit to carrying out their agreement.

When groups are engaging in problem-solving discussions, it is important to exchange information, frame issues, generate and evaluate options, develop mutually acceptable solutions, and secure the endorsement of all constituents and authorized decision-makers. The water utility or municipality retains final decision-making authority, but in a consensus process the utility or municipality puts the product of a consensus process out for official review as the proposed decision.

Consensus in the public policy setting occurs when:

- the parties have reached a meeting of the minds sufficient to make a decision and carry it out, or
- no one who could block or obstruct the decision or its implementation will exercise that power, or
- everyone needed to support the decision and put it into effect will do so

Given the mixture of issues and values in source water protection, the resulting agreement will be met with varying levels of enthusiasm and support for different components, but on balance will be one that each party or stakeholder can accept.

<sup>1</sup> Information adapted from the Government of Maine website at <[www.maine.gov/consensus/ppcm\\_background.html](http://www.maine.gov/consensus/ppcm_background.html)> and the Canadian Council of Ministers of the Environment website at <[www.ccme.ca/about/consensus.html](http://www.ccme.ca/about/consensus.html)>.

## Forming a Source Water Protection Advisory Committee

The water supply owner, which may be the water utility or municipality, initiates the formation of the advisory committee. The first action in this step is to define goals and objectives for the committee. The goals and objectives will help determine the mandate of the committee. This is essential since it will help keep the committee focused and will allow the utility or municipality to evaluate the functioning of the committee (for potential goals and objectives, please see the example on page 4). It is then necessary to find out who will be most affected by the source water protection plan. Representatives from affected groups should be included to ensure all concerns are addressed early in the planning process. Representation on the committee will vary considerably, depending on the nature of the source water area, but should include government representatives and stakeholders (for potential committee members, please see Table 1). NSEL can provide input into the composition of the committee and advise on roles and responsibilities.

**Table 1 - Potential Committee Members**

<b>Stakeholders</b>	<b>Government</b>
- Agriculture	- Municipal Councillors
- Retailers	- Water Utility Engineers
- Environmental groups	- Municipal Planners
- Forestry	- Environment and Labour
- Industry	- Natural Resources
- Land owners	- Transportation and Public Works
- Community associations	- Agriculture and Fisheries
- Recreational interests	- Department of Fisheries and Oceans (Federal)
	- Service Nova Scotia and Municipal Relations
	- Department of Health

If the source water area is located outside of the jurisdiction that it is supplying, then both jurisdictions must be involved (e.g. a town's supply is located outside the town limits in the county's or municipality's jurisdiction). This will enable the group withdrawing the water to work cooperatively with residents and businesses in the source water supply area.

It is important to develop good working relations between committee members and to ensure the chair of the committee communicates effectively and openly with all members from the beginning of the planning process. Conflicts can be prevented when the consensus-based approach is used for decision-making. The consensus-based approach requires an understanding by all members that opinions must be respected and compromises may be required to achieve the overall goal — to provide clean, safe drinking water to Nova Scotians.

If the committee cannot come to consensus on an issue then the municipality or water utility may need to use a professional facilitator to help the process. NSEL can provide guidance on selecting an appropriate facilitator. However, well-defined Terms of Reference can improve the functioning of the committee. The utility is responsible for working with stakeholders to draft the Terms of Reference that provide “ground rules” for the advisory committee. Committee members must agree to work with the process laid out in the Terms of Reference, and council must agree to accept the recommended source water protection plan developed by the consensus-driven committee process. Also, depending on the challenges and time required to organize the committee and develop the source water protection plan, there may be a need to use additional staff or consultants.

## Example of How to Set Up a Source Water Protection Advisory Committee

The following is a list of questions that the utility or municipality should answer while setting up their advisory committee and provides examples of who to include in a source water protection advisory committee. The membership of a committee will vary from location to location and will depend on the makeup of each community.

### **A. What should the goals and objectives of the committee be?**

The municipality or utility should identify goals and objectives for their SWP Advisory Committee, for example:

**Goal:** To develop a source water protection plan and provide the municipality or utility with advice on matters concerning land-use issues, as well as water quality, levels and flows in the Source Water Protection Area.

**Objectives:** To provide advice to the municipality or utility: 1) that will attempt to satisfy the water quality and quantity concerns of all stakeholder groups; 2) about the sources of contamination in the source water supply area; 3) about the management options available; and 4) about the success of the protection plan.

### **B. Who will be most affected by the source water protection plan and could provide useful information?**

The municipality or utility should determine what stakeholders would be most affected by the SWP Plan. For example, this could include land owners surrounding the water source, subdivision residents, cottage associations and/or owners, forested-land owners, tree-harvesting companies, and farm owners.

### **C. What local, provincial, and federal agencies will provide useful information?**

This could include municipal governments, NSEL, Transportation and Public Works (TPW), Agriculture and Fisheries (DAF), Health and the federal Department of Fisheries and Oceans (DFO).

### **D. Are any environmental groups located near or within the source water protection area that may be affected?**

### **E. Who should represent groups listed in questions B-D?**

The municipality or utility should choose representatives for their committee from the stakeholders identified in questions B through D.

### **F. Define Terms of Reference for Committee**

The utility or municipality, in consultation with the advisory committee, should form Terms of Reference for the advisory committee. For example:

These Terms of Reference shall serve to constitute the Source Water Protection Advisory Committee as an advisory group to the Town of X and its Utility, the Municipality of the County of Y, and the communities in the area. It will address problems and solutions to matters concerning land-use issues, as well as water quality, levels and flows in the SWP Area.

### **Mandate**

The committee will report to the Utility, and be recognized by the Town of X, the County of Y, and the Utility. Members will be appointed by the Utility, in consultation with the Town and the County.

## General

1. The Committee will review and make recommendations on all activities affecting the SWP area as requested by the Utility, Town of X, Municipality of the County of Y, and communities in the area.
2. The Committee may from time to time request individuals or groups to make representation to the committee on matters affecting the SWP area.
3. The Committee will review and comment on water quality and quantity monitoring programs and other studies related to the SWP area. All water quality information available from member agencies shall be made available to the Committee.
4. The Committee will liaise with government agencies not represented on the Committee with regard to matters affecting the SWP area; particularly the Departments of Environment and Labour, Health, and Fisheries and Oceans.
5. The Committee will develop information and education programs about source water protection for local residents, land owners and other users of the SWP area lands.
6. The Committee will elect a chair and vice-chair.

## Membership

1. Membership will consist of:
  - at least two members of the public, preferably owners of land within the SWP area
  - a local representative from each of the agriculture and forestry sectors
  - one technical representative from each of the following organizations:
    - Town of X
    - County of Y
    - DNR & TPW
  - one member of the Town Council
  - one member of the County Council

## Operation of the Committee

1. The Chair and vice-chair of the Committee are appointed annually by the membership at the meeting closest to 1 April. Members will serve on the Committee for at least one year, after which the Utility may choose an alternate for their respective position on a yearly basis at the meeting closest to 1 April.
2. The Town of X will provide secretarial services.
3. The Committee will endeavour to conduct business by consensus, but should the Committee be unable to attain consensual agreement on an issue, then the Utility may appoint a facilitator. Should this process fail, voting may be necessary. All motions require support from at least two-thirds majority of the members present. Six members will constitute a quorum.
4. The Committee will meet as necessary, but no less than three times a year.
5. The Utility may amend the Terms of Reference, in consultation with the Town and the County, from time to time.
6. The Committee must prepare an annual report of its activities to be distributed to all bodies represented on the Committee and to other interested parties.
7. The Chair will act as the Committee spokesperson.
8. The Committee may call for the input of other land owners in the source water supply area from time to time.

## Final Products

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If a utility or municipality uses the information provided in this document, it should be able to produce the following final products:

- A source water protection advisory committee that is composed of representatives of all stakeholders in the source water protection area
- A source water protection advisory committee whose mandate is defined through its Terms of Reference and constituted by the utility and/or municipality

## For More Information

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Nova Scotia Environment and Labour  
Water and Wastewater Branch  
5151 Terminal Road  
PO Box 697  
Halifax, Nova Scotia  
B3J 2T8

Phone (902) 424-5300  
Fax (902) 424-0503  
Web address: [www.gov.ns.ca/enla/](http://www.gov.ns.ca/enla/)

Service Nova Scotia and Municipal Relations  
Municipal Services Division  
Planning & Advisory Services Section  
P.O. Box 216  
Halifax, Nova Scotia  
B3J 2M4

Phone (902) 424-3872  
Fax (902) 424-0821  
Web address: [www.gov.ns.ca/snsmr/](http://www.gov.ns.ca/snsmr/)

## Glossary

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### Source water protection area

The portion of the source water supply area that will be covered by the source water area protection plan.

### Surface water supply area

The area of the watershed that contributes all the water that is used to supply drinking water from the source. Surface water sources can include a lake, river or stream.

### Groundwater supply area

The land area that contributes water to the community well, also known as the wellhead area.

### Watershed

The area drained by or contributing to a stream, lake, or other body of water. It also can be described as the geographic area of land and water within the confines of a drainage divide. Another way to think about what a watershed boundary represents is to consider a soup bowl. If you placed a small amount of water in the bowl it would settle at the bottom of the bowl. The water at the bottom of the bowl represents a lake, and the bowl represents the lake's watershed. If you pour water onto any part of the bowl it will eventually land at the bottom of the bowl, or in the lake. However, if you pour water outside of the bowl (i.e. on the other side of the bowl's lip) it will flow somewhere else. Therefore the bowl's lip can also be thought of as the watershed boundary.

### Groundwater

Water naturally occurring beneath the surface of the earth. It is water in the ground that is stored in an aquifer from which wells, springs, and groundwater runoff are supplied.

### Aquifer

A geological formation, group of formations, or part of a formation that consists of sufficient saturated permeable materials to yield economical quantities of water to wells and springs. Any water-bearing stratum of rock, earth, or gravel that has sufficient porosity and permeability to yield ample supplies of groundwater in the form of wells or springs.





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