

Using Education, Outreach, Incentives and O.Reg. 287/07 Section 26 Policy Tools to Manage Drinking Water Threats

Prepared by Conservation Ontario (May 2011)

Introduction

This document is intended to provide support materials to Source Protection Committees as they begin developing Source Protection Plan policies. Source Protection Committees have a number of policy tool options in order to address drinking water threats. Policy tools can be grouped into two different categories – those that result in legal restrictions being placed on activities, and those that generally rely on non-regulatory¹ policy tools. This document focuses on these non-regulatory tools, listed in the table below.

Non-Regulatory Policy Tools²
<ul style="list-style-type: none">• Incentives*• Education and outreach*• Section 26 paragraph 1 tools**<ul style="list-style-type: none">○ Establish stewardship programs*○ Specify and promote best management practices*○ Establish pilot programs○ Govern research○ Specify actions to implement plan or achieve its objectives
<div style="border: 1px solid black; padding: 5px;"><p>*Notes: When developing SPP policies it should be recognized that incentives, education and outreach, best management practices (BMPs) are often used in combination when implementing stewardship programs. For this reason, the outline of these non-regulatory tools includes an overarching outline of stewardship programs as well as more specific details on each complementary component (incentives, education/outreach and BMPs).</p><p>**MOE has released a source protection planning bulletin that provides additional guidance on the section 26 p. 1 tools.</p></div>

The purpose of this document is to outline for each of the non-regulatory policy tools:

- Description of the tool
- Examples of programs/practices
- Examples of policies
- Policy considerations

¹ Except for “specify actions”, which could lead to the making of a by-law or some other legal instrument.

² The legal effect of these tools varies depending on the threat risk level being addressed (ie, significant, moderate or low), and body responsible for implementing the policy. When a municipality, local board or source protection authority are identified in a plan as the implementing body for a significant threat policy, those bodies must comply with the obligations of the policy.

The Sample Policy working group also developed some example policies which outlined key policy components based on the policy tool being used. Excerpts of this document that relate to the non-regulatory tools are incorporated within this document.

SPCs are encouraged to consider existing programs being implemented by the Province, Conservation Authorities, Municipalities, and other agencies to see where there may be opportunities to link SPP policies to existing programs. There may be opportunities to create new partnerships and expand on existing programs to address the objectives of the SPP. In doing so, SPCs will be benefiting from established partnerships and landowner relationships, existing program resources (i.e. staff capacity), and watershed knowledge.

Policy Considerations

SPCs are encouraged to consider the following elements as they develop their Source Protection Plan policies. These elements will help SPCs to determine how broad or specific their policies are and help to flush out more specific policy details.

- General policy indicating a program/activity will be implemented or a specific policy outlining specific details of program requirements (e.g. which BMPs will be used).
- Existing programs that could be drawn upon and/or opportunities for partner collaboration – e.g. partner with adjacent SPA/SPRs where there is a common interest.
- Area where the policy may be implemented (based on threat being addressed):
 - Area-wide
 - Targeted to specific vulnerable areas/activities
- Target audience for policy (based on threat being addressed):
 - Area-wide
 - Specific stakeholder groups/activities
 - Multiple stakeholder groups /activities (i.e. addressing multiple threats).
- Resource requirements to implement program/activity:
 - Project funding – for project implementation
 - Staff resources– to support implementation, provide technical expertise, and track projects.
 - Supporting education/outreach – to promote program and educate landowner/stakeholder.
 - Knowledge transfer once activity is completed. For example, how will information/knowledge gained from research or pilot be used and/or communicated.

It is noted that implementation requirements vary depending on threat status and implementing body. For example, the Clean Water Act (s. 38) requires municipalities and SPAs to implement significant threat policies. A policy would be a non-legally binding commitment on municipalities, local boards, and SPAs if it addressed moderate/low threats, or if any other implementing body were identified, regardless of the risk level being addressed. See MOE's source protection planning bulletin – Overview of O.Reg. 287/07 section 26 p.1 Tools for additional details.

Policy Tool	Brief Description of Tool	Example of program/ practices from Various Jurisdictions	Examples of Policies from Various Jurisdictions	Early Concept Policy Direction ³
Stewardship programs	<p>Stewardship programs often include financial and hands on technical assistance to the community/landowners/businesses to complete a variety of environmental projects.</p> <p>Stewardship programs can include:</p> <ul style="list-style-type: none"> • Developing technical tools to monitor and assess the state of the watershed • Providing advice and technical assistance in completing on-the-ground projects • Promoting community involvement in projects • Building partnerships with all levels of government, environmental groups, businesses, residents and landowners • Creating educational resources 	<p>Rural or Clean Water Programs offered by CAs provide technical assistance and financial incentives to improve water quality and quantity at the property scale. In collaboration with CAs local municipalities across the province are offering cost-sharing grants to qualified landowners for best management practices that improve ground and surface water quality. Specific examples of CA Rural and Clean Water Programs can be found at: www.conservationontario.ca/stewardship/index.html</p> <p>The Canada - Ontario Environmental Farm Plan Program Environmental Farm Plans (EFP) are assessments voluntarily prepared by farm families to increase their environmental awareness in up to 23 different areas on their farm. Through the EFP local workshop process, farmers highlight their farm's environmental strengths, identify areas of environmental concern, and set realistic action plans with time tables to improve environmental conditions. Environmental cost-share programs are available to assist in implementing projects. Additional details on the EFP program can be found at: www.omafra.gov.on.ca/english/environment/efp/efp.htm</p>	<p>Policy 8.6 SA in the Lake Simcoe Protection Plan: The MNR and the MAFRA, in collaboration with municipalities, the LSRCA, the First Nations and Métis communities, and other stewardship partners, will develop a structured educational and incentive-based stewardship program for rural and urban (non-farm) landowners in the watershed to promote the adoption of best management practices that support implementation of the Plan.</p> <p>Policy 8.7 SA in the Lake Simcoe Protection Plan: The MAFRA, in consultation with the MNR, the LSRCA and agricultural organizations, will continue to develop and implement broad-based agri-environmental stewardship programs to promote the adoption of best management practices to support Plan priorities.</p>	<p>The conservation authority will assist and encourage water conservation and efficiency efforts in the agricultural community through stewardship programs aimed at promoting the adoption of best management practices. Specific opportunities may include....</p> <ul style="list-style-type: none"> • Through the implementation of stewardship programs, existing residents will be encouraged to • The conservation authority in collaboration with MOE, OMAFRA, municipalities and other stewardship partners, will strengthen the focus of stewardship programs to address

³ SPCs should also refer to MOE's "Complete Policy" guidance when considering policy wording, available on CO's website at http://conservation-ontario.on.ca/members/members_source_protection_committee/documents/2_CompletePolicy.pdf.

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Stewardship programs <i>(continued)</i>		<p><u>Ontario Drinking Water Stewardship Program</u></p> <p>As part of its commitment to safe drinking water and as established in the Clean Water Act, the Ministry of the Environment launched the Ontario Drinking Water Stewardship Program (ODWSP), a financial assistance program to help landowners and businesses take action to reduce threats to local municipal drinking water sources. The MOE has currently committed funding until 2012. Additional program details can be found at:</p> <p>www.ene.gov.on.ca/environment/en/subject/protection/STDPROD_080599</p>	<p><u>Regional Municipality of Waterloo – Regional Official Plan. Source water protection policies.</u></p> <p>8.C Stewardship</p> <p>8.C.1 The Region, in collaboration with the <i>Province</i>, Grand River Conservation Area, and Area Municipalities, will provide advice to land owners to promote good stewardship practices for lands and water within Source Water Protection Areas.</p>	<p>priority drinking water threats in the watershed.</p>

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Incentives⁴	<p>Intended to promote or encourage specific actions or behaviours.</p> <p>Often includes financial incentives or cost share programs but could also include community recognition programs/awards.</p> <p>NOTE: There is often opportunity for landowners/businesses to combine incentive programs so that they receive 100% project funding.</p>	<p>CA Rural or Clean Water Programs provide cost-sharing opportunities to qualified landowners to implement best management practices that help to improve water quality and quantity. See above for additional information.</p> <p>Canada-Ontario Farm Stewardship Program (COFSP) provides environmental cost-share opportunities for farmers as part of the Canada-Ontario Environmental Farm Plan. An example of the eligible BMPs, cost share and funding cap can be see at: www.ontariosoilcrop.org/docs/cofspbrochuresept_10.pdf</p> <p>Landowner/Business recognition programs – a number of agencies recognize the efforts of landowners, community groups, businesses, etc in protecting our natural resources. Recognition programs may include special awards, “thank you” events, and prizes. Examples of recognition programs include:</p> <ul style="list-style-type: none"> • Friend of the Credit Awards www.creditvalleyca.ca/conservationawards/index.html 	<p>Wellington County Official Plan – 4.9.5.11 Water Quality Protection Measures</p> <p>Council shall consider the development of programs offering financial incentives to protect and maintain groundwater and surface water.</p>	<ul style="list-style-type: none"> • Where possible, incentives will be provided to assist landowners in connecting to municipal sanitary sewer system. • In order to address the handling/storage of commercial fertilizer, municipalities in partnership with the conservation authority will explore opportunities to address this threat through existing incentive programs (including ODWSP) in particular to ensure fertilizer free buffers around wells and intakes.

⁴ Programs which promote incentives are often combined with stewardship programs.

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Education and outreach⁵	<p>Intended to increase awareness of the benefits of drinking water source protection, improve landowner acceptance of SPP policies, and encourage positive changes in behaviour.</p> <p>An education/ outreach program could include:</p> <ul style="list-style-type: none"> • Written materials (e.g. brochures, fact sheets, websites, etc.) • Community outreach (e.g. presentation to community groups/schools) • Special activities (e.g. workshops, demonstrations/tours, videos, school/community programs, etc.) • Media liaison (e.g. press releases) 	<p>CA Environmental Education Programs - The goal of Conservation Authority outdoor education programs is to complement and enhance classroom lessons, by providing students with the opportunity to participate in hands-on activities. These programs teach children about local and global environmental issues, explore the linkages between human activity and the natural environment, and instil a greater appreciation and understanding of Nature. Additional information on CA Environmental Education Programs can be found at: www.conservationontario.ca/education/index.html</p> <p>Children’s Water Festivals - These unique outdoor events teach children about the science of water and how to protect it for the future. The Festival covers five basic water themes: Water Conservation, Water Attitude, Water Technology, Water Protection and Water Science. There are currently 22 children’s water festivals organized across Ontario. Additional information can be found at www.cwec.ca</p>	<p>Town of Wolfville, NS SWP Plan 5.4.1 Fuel; Public Education - The water utility will develop an on-going program to help educate homeowners living within the Source Water Protection Area on sources of risk to water in their homes, ways to minimize impacts, accident and spill reporting procedures, and who to contact for additional information. Education should focus on a voluntary ‘Best Management’ approach, which outlines ways that residents can help to protect the aquifer.</p> <p>Wellington County Official Plan – 4.9.5.11 Water Quality Protection Measures Council in co-operating with the local municipalities shall undertake a public education program to enhance public understanding of voluntary initiation to protect the quality of groundwater and surface water, and in particular the appropriate siting and maintenance of wells and septic systems, and voluntary reductions in the use of</p>	<ul style="list-style-type: none"> • Within __ (include timeframe) __, __ identify implementing body __ shall create and deliver an education program in __ (identify applicable area –specific area or entire SPA) __ about __ (related to specific threat) __. • Components of the education program shall include ____. <p>Incentives</p>

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Education and outreach⁶ <i>(continued)</i>		Environmental Farm Plan Workshops and Information Sheets – Farmers can attend an EFP workshop in their area where they are provided with instructions and help on how to progress through the EFP risk assessment and action plan development. Specific information sheets have also been developed to provide additional information to effectively complete the action plans. Infosheets are available at: www.omafr.gov.on.ca/english/environment/efp/efp.htm	domestic cleaners, solvents, pesticides, and fertilizers. Municipal Planning Strategy of the Cape Breton Regional Municipality, Nova Scotia PUBLIC EDUCATION - The majority of people will respect the need to protect the watershed of a source of public drinking water. However, people need to know if and when they are within a watershed. The responsibility of the Regional Municipality is to notify and educate. Notification in the form of signage will be placed directly within the watersheds. Property owners could regularly receive literature (<i>e.g. along with their tax bill</i>) that they own land within a public water supply watershed and what conservation methods are recommended.	

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Best management practices⁷	Best management practices are measures taken to mitigate or prevent impacts to water quality or quantity.	<p>OMAFRA Best Management Practices Series –Water Management (2003). Agriculture Canada and the Ontario Ministry of Agriculture Food and Rural Affairs developed a series of BMP booklets which present options for protecting soil and water on the farm. The Water Management BMP booklet helps the agriculture community identify potential problem areas and how to reduce impacts and preserve water quality and supply. The booklet includes BMPs for:</p> <ul style="list-style-type: none"> • the home – including wells and septics • the barn/other farm buildings – including storage/handling of pesticides, fuel, fertilizer, manure, milk house waste, and deadstock. • the field – including nutrient and pest management • wetlands, watercourses, ponds, etc. <p>Additional details on the BMP series can be found at: www.omafra.gov.on.ca/english/environment/bmp/series.htm#4</p>	<p>Town of Wolfville, NS Source Water Protection Plan Best Management Practices – These should be used where ever possible, or developed by the water utility in conjunction with businesses and property owners, respecting practices or activities that are deemed risky, such as fuel transfer or fuel delivery.</p> <p>Wellington County Official Plan – 4.9.5.11 Water Quality Protection Measures Council and local municipalities will encourage the development and promotion of Best Management Practices (BMPs) for implementation by existing higher risk land use activities in vulnerable areas and for new industries locating in the area.</p>	<ul style="list-style-type: none"> • The MOE during its review and approval of permit to take water applications will encourage applicants to implement water conservation measures in keeping with best management standards and practices relevant to the sector (in accordance with its authority under s. 4(2) 3. Of O. Reg. 387/04 and the PTTW manual).

⁷ Programs which promote best management practices are often combined with stewardship programs.

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Best management practices⁸ <i>(continued)</i>		<p>Transportation Association of Canada Synthesis of Best Practices for Road Salt Management – provides advice to road maintainers in developing their own Salt Management Plans in order to mitigate impacts of salt on the environment. See: www.tac-atc.ca/english/resourcecentre/roadsalt.cfm</p> <p>Clean Marine Program - The Ontario Marine Operators Association and its partners have a voluntary program for environmental best management practices. This manual sets out more than 200 environmental practices that cover all aspects of marine operations from fuelling to waste oil and paper recycling. The manual is available at: www.boatingontario.ca/LinkClick.aspx?fileticket=kzF-TzRxeko%3d&tabid=116</p>		

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<p>Pilot programs</p>	<p>The SPC may want to implement an activity/project as a test or on a trial basis before it is put into broad use. This could be used to assess the feasibility of an approach to addressing a particular drinking water threat.</p>	<p>New York State Source Water Assessment Program Plan The New York State Department of Health is currently working with the Natural Resources Conservation Service of the United States Department of Agriculture on a pilot project to apply the National Agricultural Pesticide Risk Analysis model to two drinking water watersheds in western New York State. The model evaluates the likelihood of pesticide run off after application under local soil and precipitation conditions for those pesticides likely to be used in the study areas. The results of the model will be used by crop consultants in selecting pesticides for agricultural use on land within the watersheds. Such information and the general results of the assessments will be provided to the New York State Department of Environmental Conservation for consideration in development of statewide management plans for certain pesticides.</p>	<p>None found.</p>	<ul style="list-style-type: none"> • _____ will promote the development and implementation of demonstration and pilot projects focused on _____ as a means of supporting _____. • _____ pilot project will be established within one year of the date the SPP comes into effect to obtain information on lessons learned in order to address _____. <p>Lessons learned from pilot projects will inform annual reporting and future review of the SPP.</p>

Policy Tool	Brief Description of Tool	Example of program/ practices from Various Jurisdictions	Examples of Policies from Various Jurisdictions	Early Concept Policy Direction ³
<p>Research</p>	<p>Additional research may be required to determine new, innovative methods or technologies for addressing certain threats, or to better understand where targeted actions to address threats would have the most benefit to source water (eg, issues contributing area).</p>	<p><u>New York State, Department of Environmental Conservation. Water Quality Research and Special Projects.</u> Beyond the routine monitoring of all the waters of the state, the bureau also investigates, through sampling investigation and research, other issues and questions bearing on water quality. These activities may focus on a specific water body, or substance/contaminant, or source/pathway, or contaminant trends. Water quality research projects maybe short- or long-term efforts, but are typically of limited duration. Current efforts include – “Nonpoint Source/Event Monitoring in New York City Watershed.”</p> <p><u>Nova Scotia’s Drinking Water Strategy</u> A key deliverable of Nova Scotia’s provincial drinking water strategy was to “Work with municipalities and industry to research and develop municipal land use controls and best management practices (BMPs) for land uses of concern to protect water supply areas.” As a result Provincial staff developed a BMPs binder and work with municipalities to assist them with the preparation of SWP plans, including the use of BMPs where appropriate.</p>	<ul style="list-style-type: none"> • <u>City of North Bay Official Plan</u> 3.5.10 The City of North Bay is also committed to conducting research, either directly or indirectly, in areas such as alternative septic system technology that can significantly reduce waste water nutrient levels with the objective of attaining provincial approval of technologies that can be applied on a watershed basis. 	<ul style="list-style-type: none"> • The _____, in collaboration with the Conservation Authority, will conduct scientific research projects focused on..... • These research projects will build on existing research and monitoring programs in the SPA in order to address ____ threat.