

## Resources and examples of source water protection

City of Calgary	<p><b>Bow is Below: Protecting Calgary's Water</b></p> <p>The City of Calgary has created an online educational resource including informational videos and descriptions of various actions that residents can take to reduce contaminants and protect water supplies. The site also includes information on Calgary's <a href="#">Stormwater management Strategy</a>, which aims to protect the City's water supply from contamination.</p> <p><a href="#">Click here</a> to see the Bow is Below website.</p>
City of Edmonton / EPCOR	<p><b>Source Water Protection Plan</b></p> <p>The City of Edmonton in partnership with EPCOR have created a comprehensive source water protection plan that provides a background in the types of source water in the region, potential risks and hazards, and the regulatory environment, as well as goals, actions, and current results of source water protection actions.</p> <p><a href="#">Click here</a> to see the City of Edmonton Source Water Protection Plan</p>
EPCOR	<p><b>Straight to the Source for Water Protection</b></p> <p>EPCOR has created a website outlining operations in both the North Saskatchewan and Bow River basins to protect source water. Examples included on the site include plans, partnerships with other organizations, and highlights of actions taken to protect water supplies.</p> <p><a href="#">Click here</a> to see the EPCOR Source Water Protection website.</p> <p><b>Source Water Protection Presentation – Integrating with Existing Watershed and Water Management Frameworks</b></p> <p><a href="#">Click here</a> to see a powerpoint presentation outlining EPCOR's methodology, approaches, and actions in source water protection.</p>
Town of Grande Cache	<p><b>Source Water Protection Plan: Victor Lake Source</b></p> <p>The Town of Grande Cache draws a significant amount of water for domestic use from Victor Lake, which is located 1.9 km southeast of the Town centre. The water is pumped in through an intake, and pumped uphill for treatment and storage in a reservoir. A Drinking Water Safety Plan drafted in 2012 identified 36 potential risks that could harm this vital water supply. In response, the Town has drafted a Source Water Protection Plan for the lake.</p> <p><a href="#">Click here</a> for more information about the Victor Lake Source Water Protection Plan.</p>

### Additional Resources:

<p>Alberta Water Council</p>	<p><b>Healthy Aquatic Ecosystems Project Team</b>  The Alberta Health Aquatic Ecosystems Project Team was formed in 2008 to define the term <i>healthy aquatic ecosystems</i> and explore potential opportunities to advance the Healthy Aquatic Ecosystems goal of the <i>Water for Life</i> strategy. The team's work was completed in 2009, and outcomes are available on the Alberta Water Council website.</p> <p><a href="#">Click here</a> to learn more.</p> <p><b>Non-Point Source Pollution</b>  The Non-Point Source Pollution project team was formed in 2010 to build on work done by the Healthy Aquatic Ecosystems Project Team in improving understanding and management of non-point source pollution.</p> <p><a href="#">Click here</a> for more information.</p>
<p>Alberta Water and Wastewater Operators Association</p>	<p><b>Integration of Drinking Water Source Protection into the Watershed Protection/Management Process</b>  The Alberta Water and Wastewater Operators Association has published water and wastewater resource materials to provide information and expertise on safe drinking water and responsibly managed waste water systems in Alberta.</p> <p><a href="#">Click here</a> to see the resource materials.</p>
<p>Battle River Watershed Alliance</p>	<p><b>Battle River Watershed Alliance – Source Water Protection</b>  The Battle River Watershed Alliance (BRWA) is one of Alberta's Watershed Planning and Advisory Councils (WPACs), responsible for developing strategies for watershed management in the Battle River Watershed covering almost 30,000 square kilometres of east-central Alberta and west-central Saskatchewan. The Battle River watershed is a sub-basin of the larger North Saskatchewan Watershed.</p> <p>The BRWA has published a powerpoint online describing the role of WPACs in source water protection, as well as actions they have taken and plans they have created to protect water supplies in their watershed.</p> <p><a href="#">Click here</a> to see the presentation.</p>
<p>Brock University – Water Economics, Policy and Governance Network</p>	<p><b>Economic Analysis of Source Water Protection</b>  The Brock University Water Economics, Policy and Governance Network (WEPGN) is a research network that supports and facilitates multidisciplinary research into the economic, geographic, political, and other dimensions of water issues. One project done under the WEPGN is a comprehensive economic analysis of source water protection, which is studying the economic benefits and costs of action or inaction.</p> <p><a href="#">Click here</a> to find out more about the WEPGN project.</p>
<p>Canadian Water Network</p>	<p><b>Secure Source Water Consortium</b>  The Canadian Water Network's Secure Source Water Consortium brings together leading Canadian research, diverse decision makers, and</p>

practitioners who have overlapping mandates and interests in protecting and securing the quality and quantity of water sources in Canada. Since the Consortium's creation in 2012, a series of major projects have been funded ranging from evaluating monitoring strategies, to managing wildfire risks to municipal waterworks systems. Information on several of these projects is included below.

[Click here](#) for more information about the Secure Source Water Consortium.

*Management of Wildfire Risk to Municipal Waterworks Systems in Alberta*  
Led by Uldis Silins from the University of Alberta, this project had the objective of evaluating the magnitude and likelihood of wildfires in critical source water regions in Alberta, and the potential impacts on downstream water utilities. The outcomes of the project can enable the assessment of risks to municipal drinking water systems and serve as a basis for evaluating existing and future management strategies.

[Click here](#) for more information.

*Governance for Watershed-based Source Water Protection in Canada: A National Assessment*

This project led by Rob de Loë from the University of Waterloo sought to improve the understanding of key knowledge gaps related to water governance, and to ultimately improve source water protection processes and outcomes in Canada.

[Click here](#) for more information.

*Source Water Protection in Surface Waters: Evaluating Novel Monitoring Strategies for the Prioritization of Threats and the Prevention of Waterborne Disease Outbreaks*

This project led by Sarah Dorner, the Canada Research Chair on Microbial Contaminant Dynamics in Source Waters, sought to develop a monitoring and modeling framework for municipal partners that integrates information on the sources, fate and transport of microbial contaminants in their source waters, to rank threats and assess vulnerability for better mitigation strategies, and to make better water infrastructure investment decisions.

[Click here](#) for more information.

*Priority Toxic Elements - Source Water Protection and Drinking Water*

Led by X.Chris Le, Professor and Canada Research Chair in Bioanalytical Technology and Environmental Health, this project sought to identify the concentrations and chemical species of toxic elements in water, and the effectiveness of treatment devices in removing them.

	<p><a href="#">Click here</a> for more information.</p>
Government of Alberta	<p><b>Source Water Protection Site</b>          Alberta Environment and Parks Development has published a website outlining the various legislation and regulations that govern source water protection in Alberta.</p> <p><a href="#">Click here</a> to see the website.</p> <p><b>Watershed Resiliency and Restoration Program (WRRP)</b>          The WRRP goals are to enhance the ability of watersheds to mitigate the effects of flooding and drought, restore degraded watershed areas to strengthen communities' ability to withstand future flooding or droughts, and to promote ongoing stewardship and preservation of watersheds.</p> <p>Eligible projects must promote the long-term ability of watersheds to mitigate effects of flood and drought events, such as riparian and/or wetland enhancements, floodplain/river improvements, conservation initiatives, and watershed resiliency education and outreach.</p> <p>Click <a href="#">here</a> for more information.</p> <p><b>Alberta Community Resilience Program (ACRP)</b>          The ACRP is a province-wide, cost-shared capital funding program that focuses on long-term community resilience. The program supports projects that develop community resilience, focusing on mitigation efforts from floods and droughts, while improving and supporting watershed health.</p> <p>Eligible initiatives include the design and construction of projects that protect critical municipal infrastructure from floods and droughts, improve the health of watersheds, and help ensure public safety.</p> <p>Click <a href="#">here</a> for more information.</p> <p><b>Alberta Innovates Water Sustainability Projects</b>          Alberta Innovates has funded a number of water sustainability projects, several of which relate to source water protection. Examples include a University of Alberta project studying methods of integrating source water management across the province, and various studies investigating the occurrence of contaminants in water supplies.</p> <p><a href="#">Click here</a> to see the Alberta Innovates project list.</p>
Government of Canada	<p><b>Comprehensive Approach to Clean Water</b>          The Government of Canada has published a website outlining the various approaches it is taking to clean up polluted waters and protect source water from coast to coast to coast. Actions include:</p>

	<ul style="list-style-type: none"> <li>• Water management plans</li> <li>• Pollution prevention efforts</li> <li>• Chemicals management to reduce toxic and harmful substances</li> <li>• Water quality monitoring</li> <li>• Infrastructure investment</li> <li>• The development of regulations</li> <li>• Water research funding</li> <li>• International cooperation for water protection</li> </ul> <p><a href="#">Click here</a> to see the Comprehensive Approach to Clean Water website.</p> <p><b>Federal Policy and Legislation</b>  The federal government in Canada has jurisdiction related to fisheries, navigation, federal lands, and international relations, each of which give the Government of Canada a role in water management including source water protection. Federal legislation includes:</p> <ul style="list-style-type: none"> <li>• The <i>Canada Water Act</i></li> <li>• The <i>International River Improvements Act</i></li> <li>• The <i>Department of the Environment Act</i></li> <li>• Various other international treaties and environmental acts.</li> </ul> <p>The Government of Canada has published an online resource that describes the various federal legislations that regulate water and source water protection in Canada.</p> <p><a href="#">Click here</a> to see the Federal Policy and Legislation website.</p>
National Collaborating Centre for Environmental Health	<p><b>Small Drinking Water Systems: Who Does What in Alberta?</b>  The National Collaborating Centre for Environmental Health has published a document outlining the various roles and responsibilities of the provincial and municipal governments in Alberta for drinking water systems. The document includes a section on source water protection that outlines stewardship roles, responsibilities for waste management, land use planning activities, and other roles and responsibilities.</p> <p><a href="#">Click here</a> to see the report.</p>
POLIS Water Project	<p><b>Tools and Approaches for Source Water Protection in Canada</b>  The POLIS Water Project has published a report detailing the complexities of source water protection, elements for consideration in source water protection strategies, and examples from all Canadian provinces and territories that showcase approaches and demonstrate the wide range of tools being used in different jurisdictions.</p> <p><a href="#">Click here</a> to see the report.</p>
University of Alberta	<p><b>Southern Rockies Watershed Project</b>  The University of Alberta Southern Rockies Watershed Project is a research initiative seeking to develop a better understanding of the connections between the climatic, hydrological, and ecological factors</p>

	<p>regulating water on the Rockies' eastern slopes, link that information with water quality resources downstream. The eastern slopes of the Rockies are a vital headwater that serves as the source of much of the water used by municipalities throughout Alberta, and research carried out by this project can be very useful to understanding the condition of Alberta's water supplies.</p> <p><a href="#">Click here</a> for more information.</p>
<p>Water Matters Society of Alberta</p>	<p><b>Source Water Protection Information</b></p> <p>The Water Matters Society of Alberta has created an informational website that explains the importance of land-use management in source water areas to protect drinking water and aquatic ecosystems. The site also contains information specific to source water protection in the eastern slopes of Alberta's Rocky Mountains, which are the source of water for many downstream needs including agricultural, municipal, and aquatic ecosystems.</p> <p><a href="#">Click here</a> to see the Water Matters site.</p>