

Source Water Protection: Policy Advice



Battle River west of Heisler, AB

About This Document

Source water protection is all about protecting our water at the "source". For people living in the Battle River and Sounding Creek watersheds, that means protecting both the quality and quantity of the groundwater that flows beneath our feet and the surface water that flows through the rivers, streams, lakes and wetlands of this region. While engineered solutions such as water treatment are one means of ensuring good water quality in our communities, source water protection moves beyond this to address how our actions on the land impact the quality and quantity of our surface and ground water sources before they even reach our communities.

About 35% of watershed residents rely on surface water sources within the Battle River and Sounding Creek watersheds for their drinking water, while another 35% rely on groundwater sources. The remaining 30% rely on drinking water from outside our watershed, through regional water lines from the Red Deer River and North Saskatchewan River. The BRWA's source water protection efforts will be focused on the 70% of watershed residents who rely on ground and surface water sources within the Battle River and Sounding Creek watersheds.

While source water protection has a major focus on the protection of drinking water sources, we also rely on water for a number of other purposes. Through source water protection, our water sources are also protected for these purposes. And it's not just humans that benefit from the protection of our water sources. The plants, animals and wildlife of our watershed need clean and adequate supplies of water in order to survive, and rivers also require a certain amount of water in order to support healthy aquatic ecosystems. The health of ourselves, our communities, and our watershed as a whole depends on the protection of our water sources.

That is why source water protection is one component of the BRWA's watershed management planning (WMP) process. For more information about this process, see page 7. The following document outlines the BRWA's policy advice for source water protection in the Battle River and Sounding Creek watersheds in Alberta.

This advice was developed with broad input from watershed residents, stakeholders and decision-makers¹, and is supported by information compiled in the BRWA's *Understanding the Policy Context for Source Water Protection in the Battle River and Sounding Creek Watersheds* report².

Accompanying Guidelines for Implementation

This policy advice document is accompanied by corresponding implementation guidelines³. The policy advice outlined below puts forward an overarching policy direction for source water protection, while the implementation guidelines document describes options for management strategies to support the implementation of this policy direction.

Policy Statement

The objective of this policy advice is to ensure protection of the quality and quantity of ground and surface water sources within the Battle River and Sounding Creek watersheds in Alberta. The BRWA recognizes that the maintenance, improvement and protection of land and water ecosystems is essential to the protection of water sources for people.

Policy Advice Goals

This policy advice seeks to protect source waters within the Battle River and Sounding Creek watersheds through:

- the development of ground and surface source water protection plans for the region,
- monitoring and evaluation to ensure the effectiveness of these source water protection plans, and
- research to support source water protection planning efforts.

Policy Application

This policy advice applies to the Battle River and Sounding Creek watersheds within Alberta, and is intended for all residents, stakeholders and decision-makers within these watersheds. This includes all four orders of government (municipal, provincial, federal and First Nations), urban and rural residents, agricultural producers, business and industry, environmental and community organizations, academia and watershed stewardship groups. See page 8 for a map of these watersheds.

The BRWA's WMP process is non-regulatory. This means that implementation of the policy advice and implementation guidelines developed for each of the BRWA's 12 watershed management priority areas is dependent on the voluntary actions of watershed residents, stakeholders and decision-makers. The BRWA will work to support the implementation of policies and management practices that align with the goals and objectives outlined in this document.

Policy Advice

1 Source Water Protection Planning

Source water protection planning is the key mechanism through which water sources may be protected in the Battle River and Sounding Creek watersheds.

Policy Advice

Source water protection plans should be developed for the entirety of the Battle River and Sounding Creek watersheds in Alberta, with separate plans being developed for surface water and groundwater.

These plans should:

- protect the quality and quantity of ground and surface water sources
- identify appropriate management actions that should be taken to minimize or eliminate risks identified through source water risk assessments, and
- outline an implementation strategy to support management efforts.

Source water protection planning should be led by a designated lead agency and undertaken as a collaborative effort by all stakeholder groups.

2 Geographic Area of Source Water Protection Plans

An important first step in developing source water protection plans is to delineate the planning boundaries.

Policy Advice for Surface Water

The planning boundaries for source water protection plans focused on surface water should be delineated according to the drinking water intake locations for Wetaskiwin, Camrose, and Wainwright. Planning efforts should focus on the effective drainage area of the watershed.

Policy Advice for Groundwater

The planning boundaries for source water protection plans focused on groundwater should be delineated according to municipal and First Nations boundaries.

3 Source Water Risk Assessments

A source water risk assessment is a key component of a source water protection plan. First, it is important to have a good understanding of the natural features and hydrology of the watershed, the various land uses and activities taking place within the planning area, and the geographic distribution of these activities. Risks to source waters may then be identified and assessed for their potential impacts.

Policy Advice

Within each source water protection planning area, the watershed should be characterized, public water sources and systems inventoried, and a risk assessment conducted to assess all risks to source water quality and quantity.

4 Implementation of Source Water Protection Plans

Implementation of source water protection actions is the primary goal of source water protection planning efforts.

Policy Advice

Once source water protection plans are developed, the lead agency and regional Watershed Planning and Advisory Council should support stakeholders in implementing management actions identified in the plans.

5 Monitoring and Evaluation

Actions implemented as a result of source water protection plans must be monitored and evaluated in order to determine their effectiveness in achieving the desired outcomes.

Policy Advice

A monitoring and evaluation program should be developed in order to evaluate the effectiveness of all source water protection plans developed.

6 Research for Source Water Protection Planning

Additional research is required in order to strengthen source water protection planning efforts in the Battle River and Sounding Creek watersheds.

Policy Advice

Research should be undertaken in order to support the development of source water protection plans in the Battle River and Sounding Creek watersheds.

Research needs include delineating groundwater aquifer boundaries, gathering data required to characterize the planning area and conduct risk assessments, and increasing understanding of regional groundwater systems and their interactions with surface water systems.

About the Battle River Watershed Alliance

The Battle River Watershed Alliance (BRWA) was created in 2006 as a non-profit society. Shortly after its formation, the BRWA was selected by Alberta Environment, under *Water for Life: Alberta's Strategy for Sustainability*⁴, as the designated Watershed Planning and Advisory Council (WPAC) for the Battle River and Sounding Creek watersheds within Alberta. See page 8 for a map of the Alberta portions of these watersheds.

Under Alberta's *Water for Life* strategy, WPACs have a role to report on the state of the watershed, lead in watershed planning, develop best management practices, educate users of the water resource and foster stewardship activities within the watershed.

The BRWA works in partnership with communities, individual watershed residents, watershed stewardship groups, all four orders of government (municipal, provincial, federal and First Nations), industry, academia, and environmental organizations to promote the health and sustainable management of the land and water resources of the Battle River and Sounding Creek watersheds using the best science and social science available.

We exist to have a watershed that sustains all life by using sound knowledge, wisdom, and wise actions to preserve our watershed for future generations.

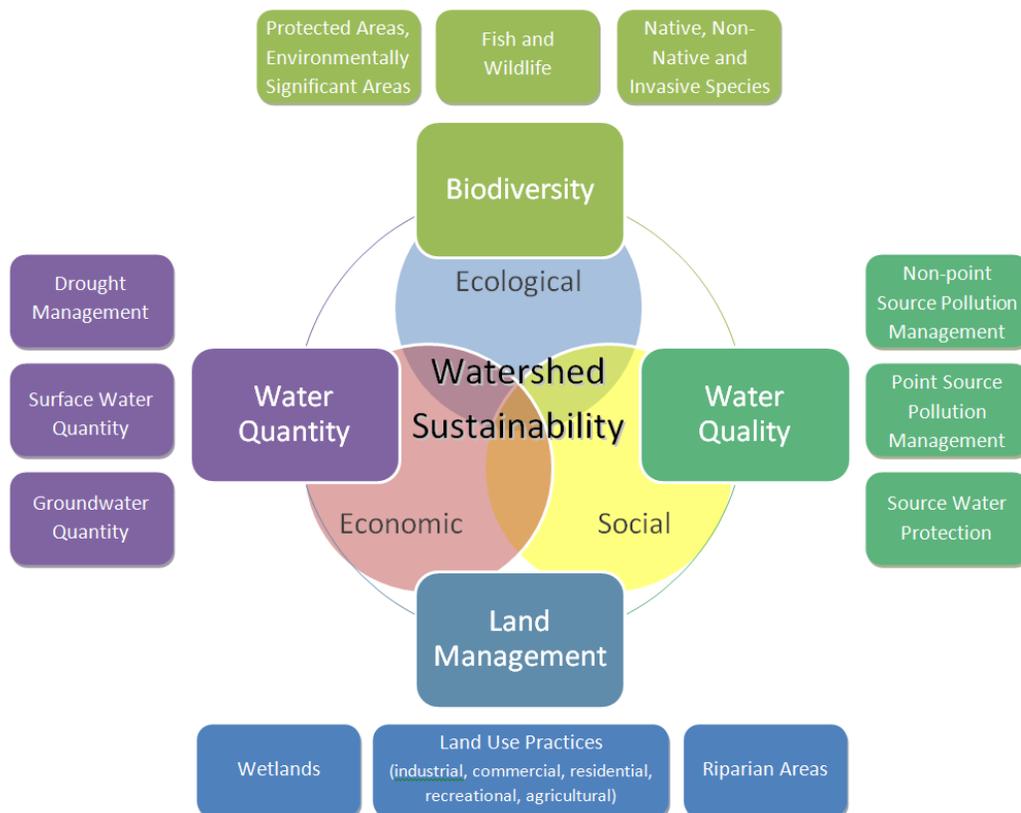
About BRWA's Watershed Management Planning Process

As the provincially designated Watershed Planning and Advisory Council (WPAC) for the Battle River and Sounding Creek watersheds within Alberta, the BRWA has a role to lead in watershed planning.

The BRWA's Watershed Management Planning Process was initiated in 2011. This planning process will ultimately result in a comprehensive Watershed Management Plan for the Battle River and Sounding Creek watersheds in Alberta, and is guided by the *Battle River Watershed Management Planning Process Phase Two Terms of Reference*⁵.

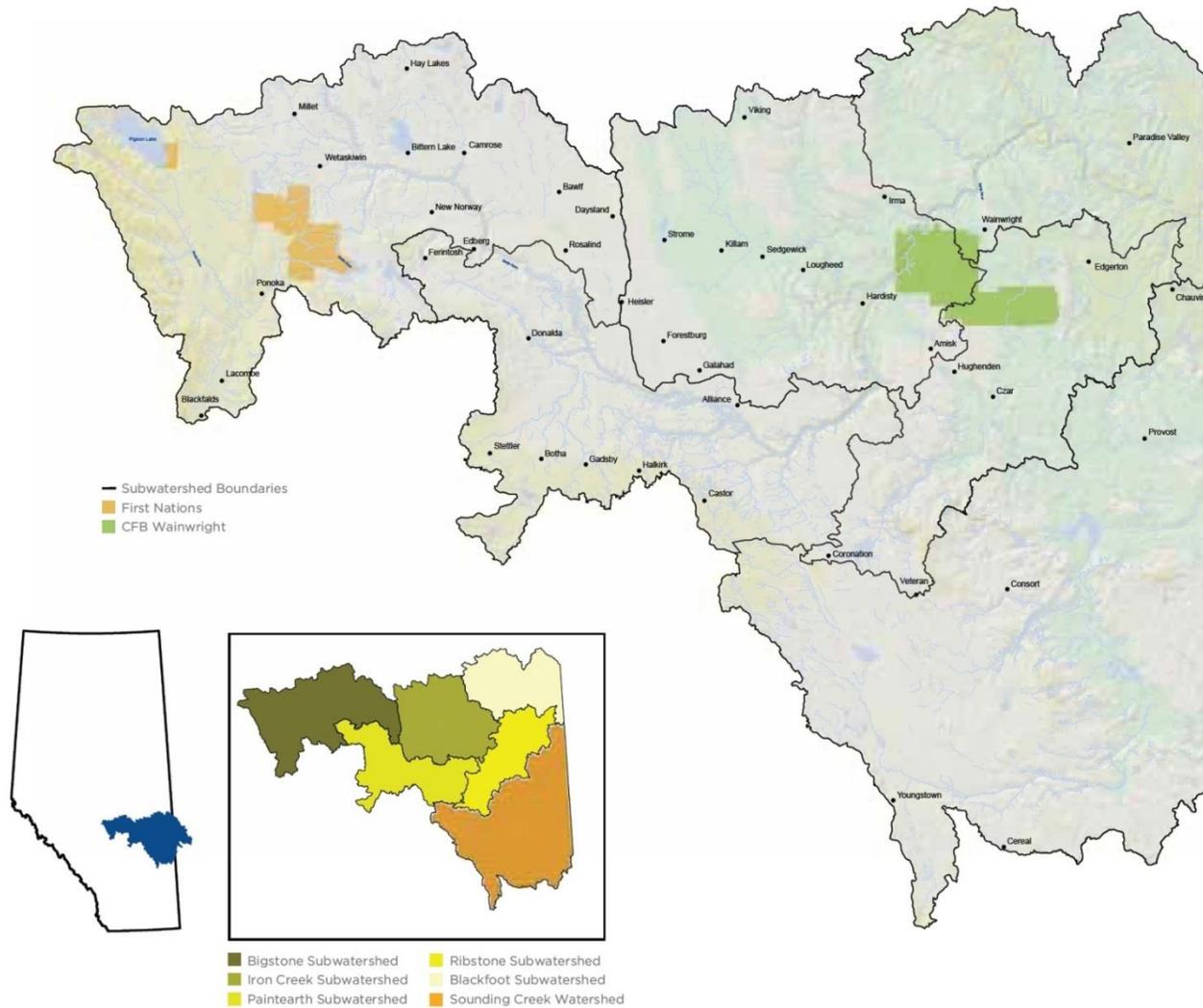
The Watershed Management Planning Process will address a number of watershed management priorities that have been identified through the BRWA's 2011 State of the Watershed Report⁶ and extensive public engagement. These priorities are outlined in the figure below.

Policy advice and implementation guidelines will be developed for each of these priority areas. These documents will comprise the Watershed Management Plan for the Battle River and Sounding Creek watersheds in Alberta.



Key components of the BRWA's Watershed Management Planning Process

Battle River and Sounding Creek Watersheds within Alberta



Endnotes

- ¹ Battle River Watershed Alliance (BRWA). 2014a. *Source Water Protection: What We Heard*. BRWA Public Engagement Report, 27 pages.
- ² Battle River Watershed Alliance (BRWA). 2014b. *Understanding the Policy Context for Source Water Protection in the Battle River and Sounding Creek Watersheds*. BRWA Watershed Planning Document, 42 pages.
- ³ Battle River Watershed Alliance (BRWA). 2014c. *Source Water Protection: Implementation Guidelines*. BRWA Watershed Planning Document, 23 pages.
- ⁴ Government of Alberta. 2003. *Water for Life: Alberta's Strategy for Sustainability*. 31 pages.
- ⁵ Battle River Watershed Alliance (BRWA). 2012. *Battle River Watershed Management Planning Process Phase Two Terms of Reference*. Battle River Watershed Alliance Watershed Planning Report, 36 pages.
- ⁶ Battle River Watershed Alliance (BRWA). 2011. *State of the Battle River and Sounding Creek Watersheds Report 2011*. Battle River Watershed Alliance, 64 pages.

This is our battle: the watershed we all share, and the fight to maintain a healthy environment, vibrant communities and a stable economy.

Battle River Watershed Alliance

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Connecting People to Place for Action



Tipis at the Battle Lake 4H Centre