

VOL. 4 ISSUE 1 • MARCH 2022

THE ATHABASCA DISPATCH

Athabasca Watershed Council Quarterly Newsletter

Re-introducing The Athabasca Dispatch

Shortly after forming in 2009, Athabasca Watershed Council released its first newsletter, called the Athabasca Dispatch. Why the Athabasca Dispatch? Dispatches were official messages, sent with haste and importance. One of the first dispatches in the Athabasca that we are aware of was in 1904, when the town of Athabasca was threatened by an imminent flood. Billy Loutitt, a Métis dispatch carrier for the Hudson Bay Company, ran 100 miles from Athabasca to Edmonton in 16 hours to get help for the town.

Then, like now, water was an issue to be taken seriously. Today, we are re-launching the Athabasca Dispatch as our quarterly newsletter. The Athabasca Dispatch will include more in-depth stories and Council updates than our regular online newsletter, and will center around a particular theme each quarter. This edition of the newsletter focuses on drinking water and source water protection. In future editions, we hope to narrow in on issues such as water quality, point and non-point sources of pollution, water security and other topics. If you have a topic you would like to see in the future, please contact us at outreach@awc-wpac.ca. Enjoy!



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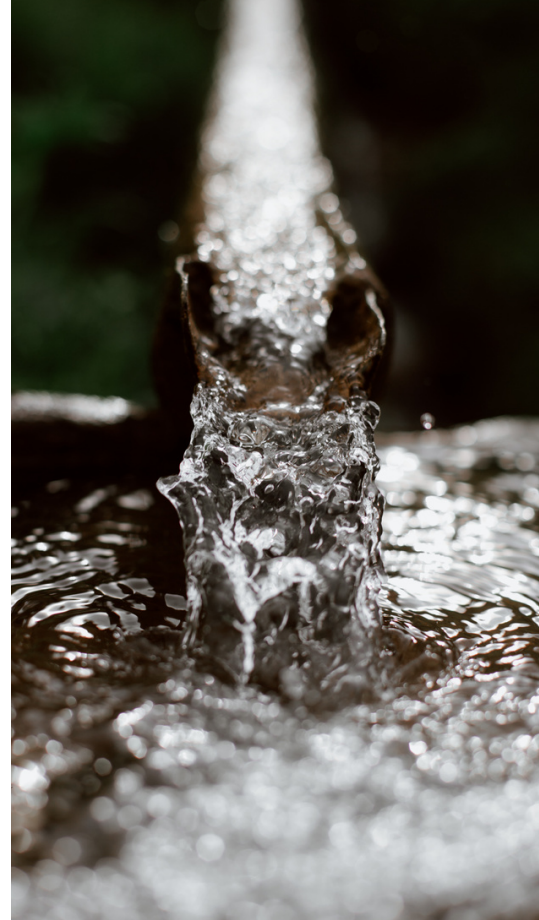
Celebrating Drinking Water Operators!

The work that drinking water operators do can often be overlooked, but many of the communities in our watershed rely on this effort to be able to drink a glass of water filled up at the tap. We'd like to start off this newsletter acknowledging drinking water operators, and thanking them for the great job that they do. If you are interested in learning more about a career as a drinking water operator, check out the [Alberta Water and Wastewater Operations Association](#) or the [TSAG Circuit Rider Program](#).



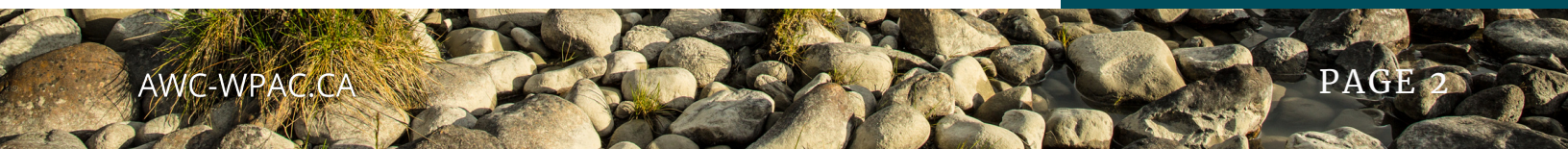
Drinking Water in the Athabasca Watershed

The Athabasca Watershed stretches from south of Jasper to north of Fort Chipewyan (with a drainage area that includes almost 25% of Alberta's landbase) and includes more than 50 urban, rural, and Indigenous communities with a total population of about 150 000 people, approximately 3.5% of Alberta's population. Many of these communities have their own drinking water treatment plants, and some belong to regional systems like the [Aspen Regional Water Services Commission](#) that provides drinking water to the Town of Athabasca and surrounding area, or the West Interlake District Regional Water Services Commission which connects a number of communities west of Edmonton including the Alexis Nakota Cree Nation. Since it was released in 2003, the Government of Alberta's *Water for Life* strategy has promoted regional drinking water networks, with cost-sharing projects funded through the municipal [Water for Life program](#).



**"Albertans will
be assured their
drinking water
is safe."**

WATER FOR LIFE
2003





Surface Water and Groundwater; Public and Private Systems

We all rely on drinking water, but do we all know where our drinking water comes from? For the most part, Athabascans, like the majority of other Albertans, get their water from public systems that draw from surface water sources, such as the Athabasca River and its tributaries, or lakes. However, did you know that 23.1% of Albertans rely on groundwater? This includes communities like Mayerthorpe, as well as more than 600,000 rural Albertans living on farms and acreages. For a map of groundwater wells in Alberta, see the Alberta Water Well Information Database.

For those individuals in the Athabasca Watershed relying on private drinking water wells, there are tools available to help owners maintain water quality standards. One of these tools is the Working Well Program which offers province-wide workshops for well owners to learn best management practices, and provides online resources. Well owners can also contact their local Community Health Centre (Public Health Unit) for sample bottles to test their well water. Information about domestic well water quality can also be found at the Alberta Environmental Public Health Information Network.

When water quality isn't guaranteed

For the most part, communities and individuals in the Athabasca Watershed have access to safe and secure drinking water supplies. However, continuous access to safe, secure drinking water isn't always a guarantee. While there are no longer any communities with long-term boil water advisories in the Athabasca Watershed, some communities still experience short-term boil water advisories from time to time.

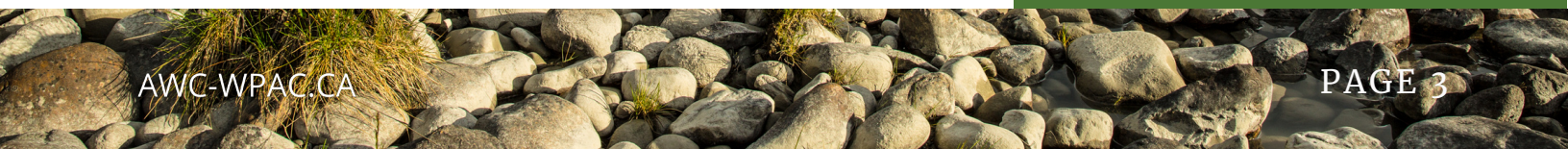
Often these short-term events are related to maintenance or upgrading of drinking water facilities. However, larger events, like forest fires or floods, can cause drinking water treatment plants to shut down for extended periods. During such events, it is important to follow Alberta Health Guidelines.

TSAG Circuit Rider Program

First Nations Technical Services Advisory Group Inc. (TSAG) offers the Circuit River Training Program (CRTP). This program is designed to provide water/wastewater training, such as an introductory course for water/wastewater systems operators, fire hydrant operations and maintenance. TSAG also provides year-round, 24/7 support to operators via their phone line. See the other services they offer, and the resources they have available at <https://tsag.net/circuit-rider-training-program-crtp/>.

Water North Coalition

The Water North Coalition is a group of northern community leaders and water and wastewater partners. They meet twice a year to share information and advocate for northern Alberta's water and wastewater needs. Learn more about the Water North Coalition at <https://www.aquatera.ca/transparency-growth/water-north-coalition>.





Protecting Sources of Drinking Water in Alberta

by Anuja Hoddinott, Alberta Water Council

Source water protection (SWP) is a voluntary, collaborative process that is part of an integrated approach to protect sources of drinking water, reduce public health risks, and minimize the costs of water treatment. It is about managing risks and enhancing the resilience of drinking water systems using a multibarrier approach.

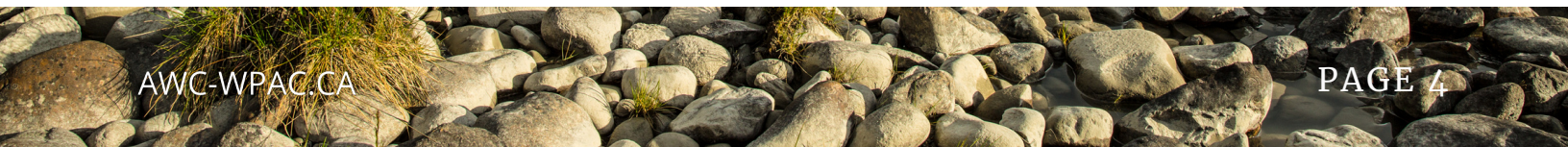
Various levels of governments, Indigenous communities, and watershed groups are leading SWP efforts across Alberta. Research undertaken by the Alberta Water Council (AWC) completed in 2020 revealed that a common approach to, and better integration of, planning and risk management processes to protect source water for drinking water purposes, is required, particularly in rural and small communities. Leadership and the need for strong collaboration among drinking water providers, watershed groups, and Indigenous communities was another important finding. Additionally, a lack of awareness, data, tools, training, resources, and expertise needed to address source water risks, particularly in rural and small municipalities was found to be a gap to effective SWP.

In 2020, a guide was released by the AWC which lays out the essentials for SWP planning. Protecting Sources of Drinking Water in Alberta: Guide to Source Water Protection Planning provides advice, including six steps, on how to safeguard drinking water sources by developing and continually revising a SWP plan. Each step describes key factors for success along with related case studies, tools, and resources available to support SWP in Alberta. The guide is intended to support municipalities, Indigenous communities, drinking water providers, or others interested in undertaking this voluntary, collaborative process.

Building on the momentum of this work, the AWC kicked off another initiative on SWP in 2021 which aims to increase access to tools and resources on source water protection for drinking water providers and local decision makers. The main objectives for this project are:

- Users and other stakeholders understand the need for SWP risk assessments and are aware of the SWP web platform.
- An inventory of SWP data sources, risk assessment tools, and procedures.
- An understanding of the capabilities of the web platform given technological and budget limitations.
- A web platform that provides access to data to support the risk assessment process for SWP planning.
- Awareness and experience among stakeholders and end users with the web platform, tools, and educational resources and their feedback on the project resources incorporated.
- A final report on the web platform, resources, lessons learned, and recommendations for an implementation phase and a strategic plan for SWP in Alberta.
- Effective communication of the project work and deliverables.

For more information about past and current SWP projects by the AWC, please contact staff or see <https://www.awchome.ca/projects/>.





Source Water Protection: A Personal Perspective

Morris Nesdole is a board member with the Athabasca Watershed Council, and a member of the Alberta Water Council's Source Water Protection Team. We asked Morris: is there a role for Watershed Planning and Advisory Committees (WPACs) in the development of Source Water Protection (SWP) planning? Here is his response:

At this moment, it is not a certainty. However, WPACs are well positioned to support SWP planning within their watersheds. There is an opportunity for our AWC-WPAC to work with municipalities and other stakeholders within our watershed to develop Source Water Protection plans. It is also a challenge for us in that we require the financial and staffing resources to support this initiative.

Source water planning is complex and requires a delineation of the source watershed/aquifer areas and of the land cover/use, water quality, and water quantity information within that area. The availability of the information varies and may not always include changes through time. As such, determining source water characteristics is an ongoing process. Currently the SWP Project Team is working to develop a tool for improving access to source watershed data (water quality, quantity, land cover/land use). The outcome, with the support of a consultant, will be a website/platform tool that can and will be used for SWP planning including a suite of tools and a supporting communication strategy.

The challenge is to create a tool that can be used to develop a SWP plan for drinking water providers in Alberta. The desired platform will amalgamate current data sources, ensuring that the tool can be updated regularly and will be evergreen through a long-term governance strategy. The platform's functionality will ensure there is the capability to include and assess changing risks as they occur.

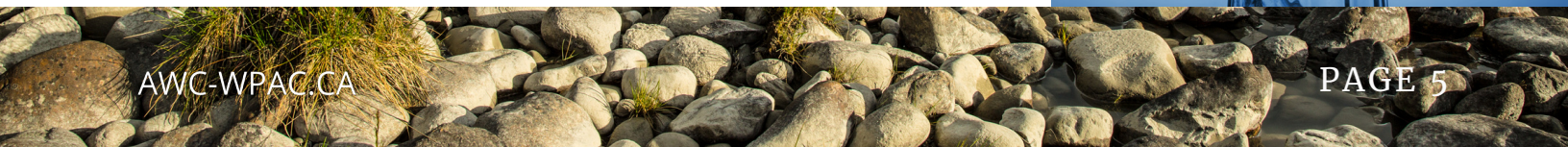
The selection of a consultant to develop the platform is currently underway. We have reached out to the WPAC Executive Directors for their support to find qualified communication experts to help create a communication plan for the SWP planning tool as it is developed and made functional.

M.A. Nesdole, Alberta Water Council Director and Athabasca Watershed Council Board Member.

Source Water Protection

by M.A. Nesdole,
Alberta Water Council
Director and Athabasca
Watershed Council
Board Member

First of all, what is source water, and why is it important to protect it? Each and every one of us relies on water—it is absolutely vital to life as we know it. Source water is untreated, raw water from surface or groundwater sources used for drinking water or other uses. Source Water Protection (SWP) is a risk management process designed to maintain or improve the conditions of water through proactive, collaborative identification, validation, assessment, and management of risk.





Drinking Water and Community Resilience

The Athabasca Watershed Council (AWC) has partnered with SAIT on a drinking water and community resilience project. This project is a capstone project for Laura Netherly, a student in SAIT's Integrated Water Management program.

The AWC operates within Alberta's *Water for Life* strategy. One of the strategy's key goals is to have a safe, secure drinking water supply. Laura's project will explore community resilience as it relates to drinking water, which is going to play a very important role in the future of Alberta. One of the many possible outcomes of climate change may be an increase in natural disasters, like we've witnessed in the province over the past 20 years. Alberta has seen several natural disasters, some of which occurred in the Athabasca Watershed: the Slave Lake wildfire in 2011, the 2016 Fort McMurray wildfire, the 2020 Fort McMurray flood, incidences of drought, and the COVID-19 pandemic that has changed the world for the past two years.

Continued access to safe drinking water in the aftermath of a disaster is key to resiliency. This means that part of the exploration of the topic of community resilience must include an understanding of how each community provides potable water and what sort of emergency plans they have in place to guarantee that access continues to matter the situation. The AWC wants to gain a clearer understanding of what kinds of resiliency steps have already been taken within the Athabasca Watershed's many communities to protect source drinking water supplies, and in what areas steps still need to be taken.

To explore this topic, Laura will first develop a clear description of what community resilience is, and how it can be measured as it relates to maintaining safe, secure drinking water supplies. The information will then be used to develop a survey covering a variety of resilience measures. Data on resilience measures already in place and any gaps in some communities' resilience planning will be collected in the survey. The data will be analyzed and presented through a project report and presentation to share the knowledge gained, and, where deemed appropriate, provide recommendations. The expected completion of the project and all deliverables is mid-April 2022.

Community Resilience

“The sustained ability of communities to withstand, adapt to, and recover from adversity, including maintaining safe, secure drinking water supplies”

Part of Laura Netherly's definition of community resilience for her project.

This edition of the Athabasca Dispatch was edited by the Athabasca Watershed Council's Education and Outreach Coordinator, Ashley Johnson, and includes contributions from Anuja Hoddinott (Alberta Water Council), Morris Nesdole (Alberta Water Council Director and Athabasca Watershed Council Board Member), and Laura Netherly (SAIT Integrated Water Management Student). The Athabasca Watershed Council's Executive Director, Petra Rowell, and Watershed Science Coordinator, Sarah MacDonald, also contributed to the editing and design of the re-launched Athabasca Dispatch.

