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Annual Water for Life

Partnerships Newsletter, 2019

The Alberta Water Council (AWC)'s annual partnership newsletter highlights the successes of *Water for Life* partners over the past year. Building on the work of the Moving from Words to Actions Project Team, the newsletter helps increase awareness of *Water for Life* partnerships and the work being done in water management across Alberta.

About the *Water for Life* Partnerships

A strategy for sustainability is the Government of Alberta's guidance document for water management. The strategy was launched in 2003 and renewed in 2008, with an associated action plan released in 2009. The renewed strategy continues to identify partnerships as a key mechanism for achieving desired outcomes. Three types of partnerships were identified, at the local, regional, and provincial levels; these are Watershed Stewardship Groups (WSGs), Watershed Planning and Advisory Councils (WPACs), and the Alberta Water Council (AWC). The AWC provides a forum for sectors and *Water for Life* partners to discuss and find innovative solutions for water management

issues. The *Water for Life* partnership system is composed of the AWC, 11 WPACs and approximately 140 WSGs. Partnerships typically include stakeholders representing governments, industries, and non-government organizations. At present, more than 1000 Albertans are working directly under the banner of *Water for Life*.

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A New Riparian Assessment Tool for the North Saskatchewan Watershed

Submitted by the North Saskatchewan River Watershed

Out of approximately 100,000 km of riparian area in the North Saskatchewan River Watershed, the condition of less than 1% of that area was known.

To help fill this immense data gap, the NSWA worked with two of its inter-municipal partnerships, the Headwaters, and Sturgeon River Watershed Alliances, to complete Riparian Assessment Reports for three of the North Saskatchewan sub-watersheds: Modeste, Strawberry and Sturgeon.

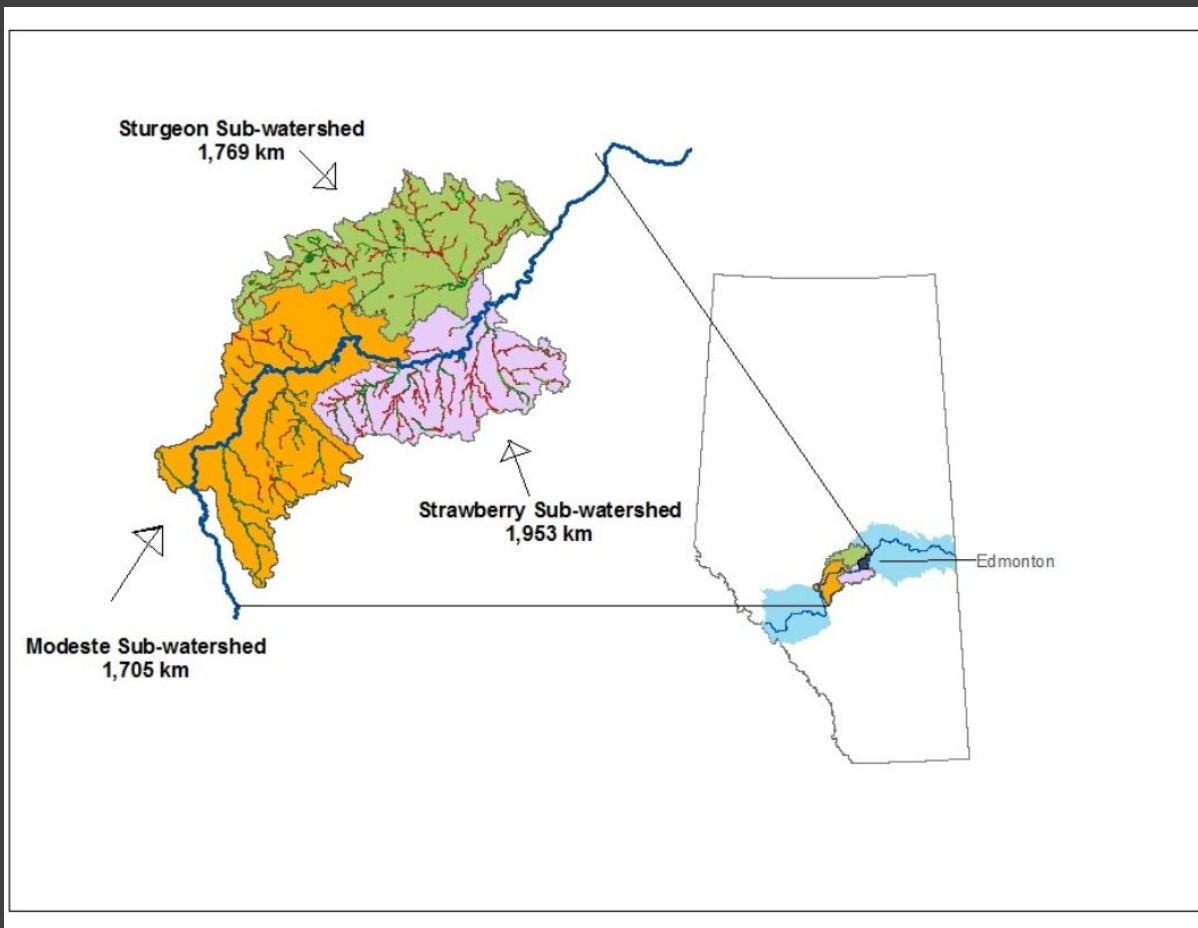
Using remote sensing to analyze the condition of riparian areas along rivers, creeks, and lakes within each sub-watershed, a new tool was developed that can establish a baseline of riparian intactness at a watershed scale. Using data collected this way, key areas for riparian conservation and restoration can be identified, resulting in a more efficient tool to prioritize and implement riparian improvement projects.

Using this new method, NSWA was able to assess the riparian condition of over 5000 km of riparian habitat:

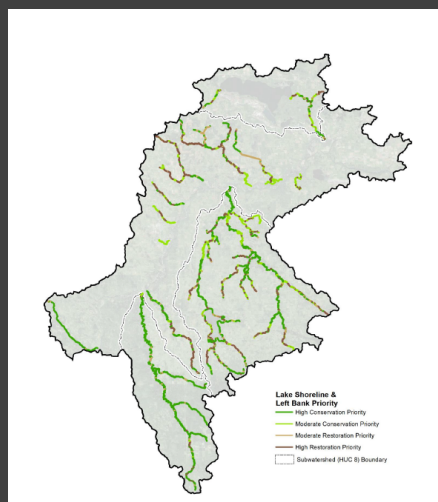
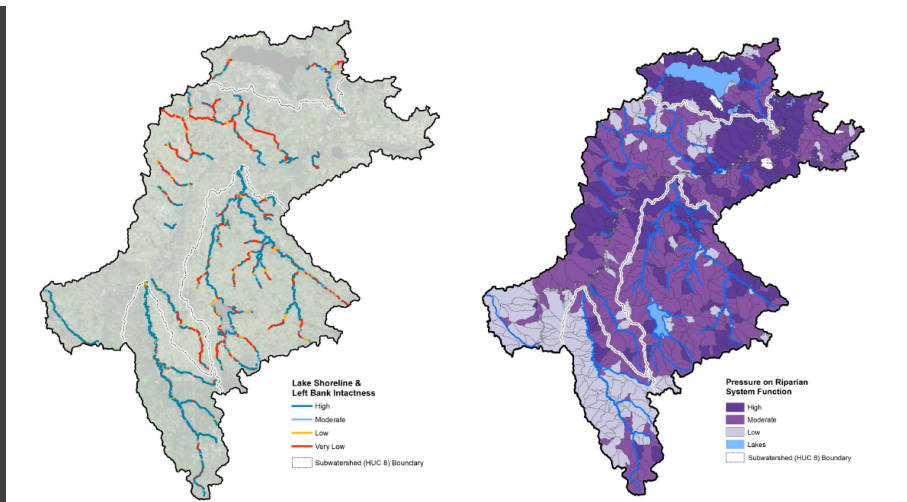
- 1708 km in the Modeste sub-watershed
- 1921 km in the Strawberry sub-watershed
- 1807 km in the Sturgeon sub-watershed.

This method was also used recently by the Government of Alberta to assess ~800 km of riparian areas in other parts of the province. These methods have now been adopted as a standard practice for assessing riparian health at the watershed scale within the province of Alberta.

Because of the usefulness of the data from the Riparian Assessment Tool, the Modeste sub-watershed was also chosen by the Government of Alberta for a 'Natural Infrastructure Project', which will evaluate financial benefits of conserving and enhancing natural infrastructure such as riparian areas on agricultural lands in the Modeste Creek watershed. Experts from the University of Guelph, InnoTech Alberta, and Alternative Land Use Services (ALUS) will help local communities understand how restoring natural infrastructure will improve water quality and reduce the impact of flood and drought.



NSWA Riparian Assessment Project Area



Riparian Intactness, Pressure and Prioritization Areas for the Modest Sub-Watershed

Read more about the [Modest Watershed Riparian Area Assessment Here](#). Read more about the [Riparian Health Action Plan here](#).

SEAWA a Leader in Greening Local Stream Banks and Lake Shores

by Marilou Montemayor and Maggie Romuld



People have always been attracted to stream banks and lake shores. Both science and law refer to water-edged zones as “riparian”. In their natural state, these strips of land between the water and upland appear as green ribbons along streams, or around lakes or reservoirs.

Unfortunately, when riparian areas are subjected to human interference, they often suffer from overuse. In pastures, trampling of vegetation is caused by livestock, and in urban areas, by pets and people. Riparian areas are also wholly lost to direct development and paved infrastructure.

The South East Alberta Watershed Alliance, in partnership with private landowners, City of Medicine Hat, and St. Mary River Irrigation District, restored and enhanced 7.7 km of riparian areas between May 2018 and January 2019. Projects included fencing to prevent livestock access and installing an off-stream livestock watering system, planting 1000 native shrubs and trees, and removing a livestock corral panel from a riparian area. The projects were implemented in the City of Medicine Hat, Cypress County, and the County of Forty Mile; and were funded by the Recreational Fisheries Conservation and Partnerships Program Fisheries and Oceans Canada, and the Watershed Resiliency and Restoration Program, Government of Alberta. Funding for the RFCPP ends on March 31. WRRP funding continues until March 2020.

There is no one-size-fits-all method for revegetating degraded riparian areas: each site is unique, and practices must be site-specific. Numerous factors needed to be considered when developing the 2018 revegetation methods and techniques: the semi-arid climate and a drought year; extreme heat warning and wind advisories; less snow than average;

and warm spells in the fall and winter. It was also important to take into consideration soil characteristics; site slope and aspect (north, south, east, west); location on the inner vs. outer curve of a stream; wildlife browsing; accessibility of the site to vehicles bringing supplies, tools and equipment; noxious and invasive weeds; and the availability of hired labour and volunteers.

Even a minor loss of riparian areas in southeastern Alberta results in significant ecological loss because riparian areas are few and far between in our semi-arid climate.

Revegetation of degraded riparian areas is labour intensive and costly: sites must be prepared and planted, and there is time-consuming post-plant care. Therefore, it is best for our watershed, the overall environment, and the economy, to conserve and protect existing healthy riparian areas and prevent degradation from occurring.

The full article is available in the March 8th edition of the Prairie Post East.

For more information: executive@seawa.ca, 403-580-8980, www.seawa.ca, follow us on Twitter ([@SEAlbertawaters](https://twitter.com/SEAlbertawaters)) and Facebook ([Seawa.Watershed](https://www.facebook.com/Seawa.Watershed))



Discarded Christmas trees for snow trap and mulch

The Crab-Diving Story of Illegal Species Transport

by Grace Young, Aquatic Invasive Species Technician, Government of Alberta

What wears mittens, enjoys long walks on the beach and has eight legs? The answer is... Chinese Mitten Crabs! At less than 10cm in size, they may not seem like a big deal but these mitten-yielding terrors can wreak havoc both on the environment and human health. Importing them into Canada alive is illegal without a license but recently people have given it a try.

On October 24th, the Canadian Border Services Association (CBSA) seized a shipment that was declared as “TV Lights” destined for a Calgary residence. This ill-marked styrofoam box carried 21kg of very real, very live Chinese Mitten Crabs. These greenish-brown crawlers are small (3-10cm), eight-legged, and most distinctively, have hairy claws (hence the mitten in their name). They are native to East Asia and considered a delicacy.

The shipment seized at the Calgary International Airport came from Hong Kong and the importer did not have a fish import license, which is mandatory for anyone that wishes to import live fish or fish products. When CBSA finds an illegal species, they often connect with other government agencies more specialized in dealing with the species in question. In this situation, CBSA contacted both Aquatic Invasive Species (AIS) program staff and the Canadian Food Inspection Agency (CFIA).

Chinese Mitten Crabs can threaten aquatic ecosystems when they eat fish eggs and damage fish habitat through their burrowing activities. In Alberta, the extent of environmental threats was deemed low because the crabs were unlikely to survive if released. This still left a human health concern. Chinese Mitten Crabs act as a middle host for the oriental lung fluke, a parasite that can be passed to humans when consumed raw. The seized crabs in this situation were euthanized and the case was handed over to the Canadian Food Inspection Agency.

The CBSA doesn't just help in the fight against invasive species at the airport, they also collaborate with Aquatic Invasive Species program staff at land borders. In 2017, the province worked with CBSA to develop a border notification system to keep AIS staff informed when a boat passed the border outside of watercraft inspection station operating hours. This has helped catch hundreds of potentially mussel-fouled boats that could otherwise have been missed! Collaboration is crucial to protect Alberta's environment and ecosystems and we hope that you can continue to help us fight the threat of aquatic invasive species by:

- Reporting aquatic invasive species through EDDMaps or the AIS hotline 1-855-336-BOAT
- Don't let it loose – never release live animals, plants, or aquarium water into the environment.
- Clean Drain Dry Your Gear – never move water, mud, or fish from one location to another.



Picture Credit: Canadian Food Inspection Agency

Monitoring the Tributaries of Lesser Slave Lake

Submitted by the Lesser Slave Lake Watershed Council



The Lesser Slave Watershed Council has completed the second year of a tributary monitoring program that was established in 2017 to examine water quality in the main tributaries of Lesser Slave Lake. The program was established to fill major water quality data gaps that were identified in the 2008 State of the Watershed report done by the LSWC. The development of the Integrated Watershed Management Plan for the Lesser Slave Watershed recommended establishment of a long term water quality program for the tributaries of Lesser Slave Lake. Because the Lesser Slave sub-basin is not on the main stem of the Athabasca River there is no monitoring being done anywhere in the watershed by Environmental Science and Monitoring Division at this time.

The LSWC secured funding from industry sponsors to implement the program in 2017 and since then has secured a five-year funding commitment from Vanderwell Contractors, a local forest company and received smaller contributions from local oil and gas companies as well.

Nutrient loading, sediment transport, and fish health are main concerns of stakeholder and people in the Lesser Slave Watershed. The baseline program measured

temperature, pH, conductivity, dissolved oxygen, total suspended sediments, total and dissolved nutrients, and fecal coliforms ten times per year at 15 tributary sites. The LSWC has established a working partnership with Swan River First Nation to collect additional information at three sites in the Swan River including total and dissolved metals and total dissolved solids. The water quality results are summarized annually and a report is made available online. The LSWC is also working with Mackenzie Datastream to have our results posted on their public, online platform.

Long term goals for the LSWC include the development of water quality objectives for tributaries in the watershed. The LSWC was not able to set water quality objectives in the 2018 Integrated Watershed Management Plan due to lack of data. The LSWC also plans to grow the program to include more parameters if funding becomes available to do so.

[Click here to learn more.](#)



Executive Director Meghan Payne fills a routine sample bottle during the 2018 field season.

Finding Common Ground

Submitted by the Battle River Watershed Alliance



Over the past two years, The Battle River Watershed Alliance has worked with the GOA's Community Environment Action Grant to increase knowledge, dialogue, and action about energy and climate change in the Battle River region. The project titled Finding Common Ground had three main components; a cycling tour, a documentary film, and a community conversations series.

The Finding Common Ground three-day bike tour explored energy options and opportunities within the unique context of our prairie-fed watershed and climate change threats. Over three days 25 cyclists visited seven energy production sites, listened to 17 guest speakers, and biked 186 km!

Filmmaker Alison Bortolon joined the tour to capture footage and create a 25-minute film. The documentary showcases the highlights of the tour and the perspectives and ideas that emerged. It is now available on the BRWA's YouTube channel. [Click here to watch.](#)

The third part of the project focused on facilitating discussions about energy, climate change, and resilience. The BRWA hosted 12 community conversations throughout the watershed region where participants watched the film and shared their own opinions on the topics.

The Finding Common Ground project emphasized open and constructive dialogue. This gave participants the chance to safely ask questions and consider concerns, in order to work toward positive changes. People were introduced to new practices, tools, products, and services required to avoid greenhouse gas emissions (GHGs)—as presented through fellow participants and guest presenters. The “What we Heard” report project summary and additional links can be found on the website by [clicking here.](#)

The BRWA are excited to start the second version of the Finding Common Ground project- an Energy Ambassador training tour. By engaging community leaders, the BRWA will continue to facilitate training and discussion about local energy and environmental issues, while building

community capacity for finding common ground around these important topics.



After the Flood

Submitted by the Land Stewardship Centre



In 2017, [Foothills Land Trust](#) received a Watershed Stewardship Grant to support their Highwood River Floodway Resiliency and Restoration Project. Read on to learn how they have used the grant to protect land in perpetuity, mitigate the effects of flooding, create community champions and enhance one of Alberta's watersheds.

Since 2006, the [Watershed Stewardship Grant](#) has provided over \$1.9 million in funds to local, grassroots groups who are working hard to protect and enhance Alberta's watersheds and water resources. In 2017, Foothills Land Trust was one of those recipients. Their project aligned harmoniously with the Government's Water for Life Strategy. With the support of WSG funding and other funding partners, their project, to restore and maintain watershed function along the Highwood River, has had a significant impact within the greater Bow River Basin watershed.

The Power of Water

During the devastating Southern Alberta floods of 2013, the Highwood River, which is

located in the Bow River Basin watershed, overflowed its banks and subsequently flooded several rural residential properties, mainly on the south side of the river. As many homes and other structures in the floodway were seriously damaged, the Government of Alberta obtained several properties through the Disaster Recovery Program and, through Foothills Land Trust, placed conservation easements (CE) on 131 acres of riparian habitat upstream of the Town of High River. These CEs are being managed by the Foothills Land Trust to protect and restore riparian habitat for flood mitigation, drought resiliency, water quality protection, and fish and wildlife habitat protection.

Protecting for the Future

Knowing how important ongoing stewardship is, and following the placement of these CEs, Foothills Land Trust formed the [Spitzee Riparian Stewardship Society](#). The Society, which is comprised of local volunteers living near the CE properties, and which operates under the direction of the Foothills Land Trust, has been instrumental in restoring, protecting and monitoring these properties. They also raise awareness and educate the community about the importance of riparian areas, as well as responsible stewardship of the CE properties.



The Society's efforts are directed by the [Riparian Habitat Management Plan](#) that was created by the Foothills Land Trust and the M.D. of Foothills. The document is intended to help guide the Foothills Land Trust and the Society with stewardship, restoration and monitoring of the CE land parcels in collaboration with the MD of Foothills and other project partners.



Sharing With Others

All the resources prepared by the Foothills Land Trust and the Spitzee Riparian Stewardship Society are intended for use by other watershed stewardship groups. Their CE Agreement can be used as a template for others interested in doing similar work, saving time and legal fees. Their Management Plan and Baseline

Study can also be used by others as a guide for how to identify different areas for different management strategies. You can connect directly with both organizations at spitzeestewardship@gmail.com and www.foothillslandtrust.org/contact.html

Did You Know?

A Conservation Easement (CE) is a land management tool, which protects land for the purpose of preserving environmental and/or scenic and/or agriculture values, usually in perpetuity, to safeguard them for generations to come. [Learn more about CEs in Alberta.](#)

A land trust is a non-profit organization that has as one of its core objectives, the acquisition of interests in land (e.g., conservation easements) or the acquisition of land for the purpose of conservation. Most land trusts focus on conserving the biological values of land, but across the continent land trusts have been established to protect scenic, historical, agricultural and recreational lands as well. [Learn more about land trusts.](#)

Photo Credits: Land Stewardship Centre

Celebrating 10+ years of Watershed Stewardship

Submitted by the Land Stewardship Centre

“When the well is dry, we will know the worth of water.” Benjamin Franklin

2018 marked the 12th year that Land Stewardship Centre (LSC) has been administering the Watershed Stewardship Grant (WSG) program. Since 2006, the WSG, funded by Alberta Environment and Parks, has been supporting grassroots stewardship groups in Alberta who are working hard to protect water and watersheds in their communities. Take a walk down memory lane with us as we reminisce about the last decade+ of watershed stewardship and the WSG’s impact in Alberta.

A Program With Purpose

As climate change, development pressures, and water quality and quantity concerns started becoming increasingly pressing issues, the Alberta Government created the [Water for Life](#) Strategy to ensure Alberta’s watersheds are protected now and in the future. Since its inception, the WSG program, which provides funding for collaborative, community-based stewardship efforts, has been supporting the principles, goals and outcomes of Alberta’s Water for Life strategy.

A Program With Impact

Over the past 12 years, nearly 130 grassroots stewardship groups have received more than \$1,700,000 through the WSG program to develop and implement more than 300 projects in communities across Alberta. The WSG has funded a wide variety of initiatives and projects from restoration activities to educational efforts.

For example, in 2015 the Love the Lake group received funding to combat invasive species at Pigeon Lake and, as a result, they were successful in eradicating Himalayan Balsam in the area by employing an innovative new technique. Just this year, Southern Alberta Land Trust Society will be developing an online, shareable and publically accessible conservation mapping tool in an effort to provide important data to stakeholders working to protect watershed and riparian health within the Bow River watershed. Take a look back at [past WSG recipients and their projects](#)

A Program With Meaning

However different the WSG projects may be, they all share the common goal of enhancing, restoring or protecting Alberta's watersheds. Another commonality is that WSG funding has been critical for these groups to not only undertake but sustain their volunteer-driven stewardship activities. When asked what the WSG has meant to them, several past grant recipients had the following to say:

"The WSG has been instrumental in enabling us to do the work that we do as an organization, and we hope that support continues," offers Walter Neilson, president of the Mayatan Lake Management Association. [Check out this video clip](#) of Walter explaining how the WSG has helped them achieve their stewardship goals.

"Our local watershed and creek are a significant legacy for our community," explains Gerry Bietz, President of the Bighill Creek Preservation Society. "Without public recognition of its importance and broad-based support for its protection, the value of this special area would be eroded and potentially destroyed by peripheral development." Lyse Carignan, Treasurer for the Society, adds that without WSG funding, they simply could not do the work they do. [Learn more](#) about their work.

Blake Bartlett, Chair of the Wizard Lake Watershed and Lake Stewardship Association, is also quick to point out that their Association and its committed volunteers couldn't do what they do without the support of funding programs like the WSG. "The WSG funding is essential to assisting small, volunteer-driven stewardship organizations to deliver top-notch projects that protect Alberta's watersheds," Blake explains. [Learn more](#) about their work.

A Program Worth Investing In

To demonstrate the importance of the WSG program, with volunteer in-kind and other contributions, groups are able to, on average, leverage the WSG funding at a rate of 4:1. In 2017, stewardship groups received \$190,000 in grant funds which they were able to use to leverage over \$500,000.

From LSC's perspective, it is so rewarding to hear these passionate testimonies, see the completed projects and be able to support these grassroots groups in such a meaningful way. LSC is very grateful to Alberta Environment and Parks for funding the WSG, which enables these groups to achieve impactful, on the ground results to safeguard our water resources.

Learn More, Stay In Touch

For more information about the WSG program, and how and when to apply [visit our website](#).

Also, stay tuned for an exciting new feature coming to the LSC website. This fall, we will be launching our new, digital story-map to highlight past WSG projects across Alberta. You will be able to browse past projects by location, see pictures and videos, and connect with other groups.

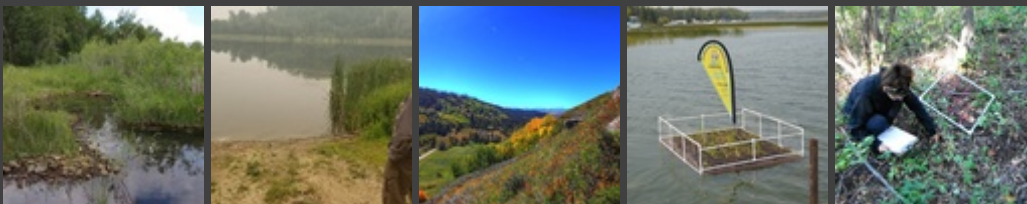


Photo Credits: Land Stewardship Centre

Build Trust, Provide Support, Protect a Watershed

Submitted by the Land Stewardship Centre

The Vermilion River Watershed Alliance's (VRWA) vision is simple – a healthy and sustainable watershed. With a concerted effort, a lot of relationship building, and some financial incentives to support on-the-ground activities, this small, collaborative watershed group is bringing their vision to life through projects to restore drained wetlands.

A focused effort

In an effort to ensure a healthy and sustainable watershed, and to safeguard Alberta's vulnerable water resources, VRWA is advancing the objectives outlined in the Vermilion River Watershed Management Plan through their Vermilion River Watershed Restoration and Enhancement Project (VRWREP). The main goal of the VRWREP project is to restore or enhance wetlands and riparian areas within the Vermilion River Watershed.



“This watershed has been a priority consideration for both flood and drought mitigation,” explains Mara Erickson, Extension & Stewardship Coordinator for the VRWA. “Healthy wetlands and riparian areas are an important piece of this puzzle which is why they are the focus of this project.”

Reduce barriers

More often than not, these wetland and riparian areas are on private land. While many landowners are interested in and would like to do restoration activities on their land, the financial requirements for projects of this nature can be a barrier.

The VRWREP project helps address this issue by partnering with private landowners who are interested in doing restoration work on their land, and providing them with financial incentives to support their efforts.

“This is a win-win situation,” says Mara. “We help ease the financial burden and the landowners are responsible for the actual restoration and enhancement activities.”

In the words of one participating landowner who fenced off livestock access to the Vermilion River, “The cost to do this type of work can be prohibitive for a landowner. But with [financial] support, projects that improve water quality along the river, and have long term environmental benefits for people, wildlife, vegetation, can become a reality.”

Collaborate to succeed

To date, VRWA has worked with 26 landowners to implement 33 projects, resulting in 4500 tree seedlings planted in degraded wetland areas, and over 125 hectares of wetlands and riparian areas enhanced or restored. Through the project, VRWA engaged more than 10 partner groups and municipalities and, through a partnership with the North Saskatchewan Watershed Alliance, utilized three separate sources of funding: the Government of Alberta's Watershed Resiliency & Restoration Program, Environment & Climate Change Canada's (ECCC) National Wetland Conservation Fund, and ECCC's EcoAction Community Funding Program.



“Working with partners really helped us achieve success and everyone played an important role,” Mara adds. “Local municipalities were instrumental in spreading the word to landowners about the funding opportunity.”

Trust supports success

Mara says that the key to establishing successful partnerships is to first build trust. Community involvement, listening to potential participants' stories, and understanding their concerns and values is critical to designing a project that will work on the ground. Mara adds that restoration activities have to make both ecological as well as economic sense for the one making the operation change.

Photo Credits: Land Stewardship Centre

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