

FEBRUARY, 2016

Annual *Water For Life* Partnerships Newsletter

ISSUE FIVE - 2016



About this newsletter

The [AWC](#)'s annual 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 annual partnerships newsletter helps to increase awareness of the *Water for Life* partnerships and the work being done in water management across Alberta.



Special thanks to the contributors of our this issue: Government of Alberta, Battle River Watershed Alliance, Oldman Watershed Council, the Milk River Watershed Council, and the North Saskatchewan Watershed Alliance.

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About the *Water for Life* Partnerships

Water for Life: a strategy for sustainability is the Government of Alberta's guidance document for water management in the province. 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 the Strategy's goals and outcomes. Three types of partnerships were identified in the strategy: local Watershed (WSGs), regional [Watershed Planning and Advisory Councils](#) (WPACs), and the provincial Alberta (AWC). The AWC provides a forum for sectors and *Water for Life* partners to come together 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 1 000 Albertans are working directly under the banner of *Water for*

water for life

Powerful Partnerships

There is power in partnerships. The implementation of the 2013 [Alberta Wetland Policy](#) is a case in point.

In June 2015, when the [Government of Alberta](#) began implementing the policy in the White Area, it was clear that partnerships would play a big role in helping shape Albertans' attitudes and actions towards wetlands.

Decades ago, wetlands were seen as an obstacle to land development and productive farming. But now, we know that wetlands play a critical role in sustaining healthy watersheds by protecting water quality; providing water storage and groundwater recharge; supplying habitat for wildlife, fish, and plants; and supporting biodiversity.

Thorsten Hebben of Alberta Environment and Parks (AEP) has seen how strong partnerships supported the wetland file in the past. "The policy was really the first step; to be fully successful, we knew it had to expand to the level of collaborations and partnerships," said Hebben, the project lead.

The uptake from municipalities, who have authority over local land planning, would be important. Hebben was thrilled with the response. He was invited to dozens of meetings across the province to discuss the policy with more than 30 local governments. "Collaborating with municipalities towards a common outcome has really been the crown jewel in this process," he said.

Message from Honourable Minister of Environment and Parks, Shannon Phillips

Access to a safe and secure water supply is fundamental to life. Alberta's water belongs to all Albertans, and our government recognizes that responsible management of this essential resource is integral to our environmental, social and economic prosperity. Albertans have expressed their desire for water stewardship and for increased knowledge so they can contribute meaningfully to responsible management of our water resources.

Water literacy is an important component of Alberta's [Water for Life](#) strategy. The [Alberta Water Council](#) plays a crucial role in raising awareness by working with the Government of Alberta and other stakeholders to assess and improve water literacy. As population and economic growth continue to increase our water demand, we must look at innovative ways to optimize our water resources. The Council's collective expertise, experience and accessibility provide an ideal forum for these discussions.

I commend the Council for its dedication to sustainable water management and, in particular, its emphasis on collaboration and engaging all interests to address Alberta's water management challenges. Thank you for your leadership and continued efforts to further the goals of Alberta's Water for Life strategy.

Sincerely,
Shannon Phillips
Minister of Environment and Parks



Photo by Alberta Water Council: Ink pots, Banff

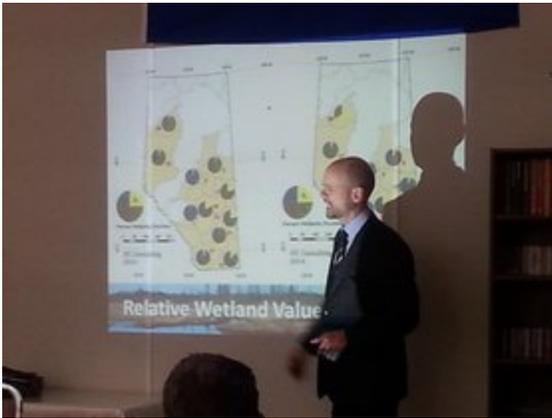


Photo: Thorsten Hebben, Director of Surface Water Policy, AEP, speaking to the Battle River Watershed Alliance.

The meetings provided opportunities to meet others who could play a stewardship role. Hebben recalled one farmer from Red Deer who approached him after a meeting held by the Red Deer River Watershed Alliance. The farmer was “vibrating with energy” as he described how for more than 30 years he had protected the wetlands on his farm.

Then there was the man from Mackenzie County who stood up at the end of a public meeting. He had been quiet during the meeting in which some residents expressed concern about how the policy would affect them. Hebben notes, “He was slight but his voice boomed through the hall as he spoke of the importance of preserving wetlands.”

The wetland file has a long history of collaboration. In 2005, the AWC established the [Wetland Policy Project Team](#) to develop recommendations. The Government of Alberta has also worked in ongoing partnership with First Nations and Métis and with stakeholders and technical experts from a wide range of sectors, including agriculture, forestry, environmental non-governmental organizations, oil and gas and land development.

Article and photo by: Government of Alberta

Oldman Watershed Council Student Interns in the Headwaters

The [Oldman Watershed Council \(OWC\)](#) hired two student interns in the summer and fall of 2015 to

Alberta Phosphorus Watershed Project

Phosphorus loss from agricultural operations is a known risk to surface water quality in Alberta. To manage this risk, the Intensive Livestock Working Group, the [Alberta Livestock and Meat Agency](#), and [Alberta Agriculture and Forestry](#) partnered on the [Alberta Phosphorus Watershed Project](#) to develop the Alberta Phosphorus Management Tool (APMT). This tool helps producers evaluate their operations to identify risks for phosphorus loss and beneficial management practices (BMPs) they could adopt to mitigate these risks.

AF piloted the tool in partnership with Red Deer, Kneehill, and Mountain View counties and producers in two small watersheds (Tindastoll Creek and Acme Creek). This involved assessing agriculture operations and considering which BMPs could be implemented. As of January 2016, 13 producers have completed APMT assessments and nine are in the process of implementing BMPs.

The APMT will be further refined and its development complete in late 2016. Future work in the watersheds will evaluate whether BMP implementation has resulted in improved water quality. Project partners will continue to work with producers to implement BMPs in most of the critical source areas for phosphorus—that is, areas with high potential for generating flow, sediment, and nutrients. Water quality and flow data have been collected in the Tindastoll and Acme creek watersheds since 2013, and will be further monitored for eight to ten years to analyze whether BMP implementation reduces phosphorus loss over time. The effectiveness of BMPs will also be determined by assessing riparian health in the watersheds before and after BMP implementation. Six riparian assessments per watershed were completed by Cows and Fish in June 2015.

For further information, visit the project website at: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/irr14541](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/irr14541).

Article by: Government of Alberta

WPAC Education and Outreach Coordinators get X-Stream

[Alberta's WPACs](#) aim to facilitate students’ and stewards’ understanding of, and engagement in their watersheds. That is why education and outreach coordinators from the Battle River, Red Deer River, and Beaver River watersheds came together to create a citizen-science water quality monitoring program called X-Stream Science.

lead outreach activities in the Crown of the Continent. Rowan is a political science undergraduate student, and Adam is pursuing graduate studies in environmental science. Their main responsibility was to build relationships with off-highway vehicle users and backcountry campers on public land in the Oldman watershed. They did a great job and were a critical part of the outreach project.

Their focus was on approaching campers in the backcountry and engaging them in conversations about watershed health. Campers welcomed this opportunity and were pleased to share their thoughts.

Another responsibility was to build relationships with off-highway vehicle groups, which the student interns did this by assisting with bridge decking events. They were also responsible for promoting and participating in two riparian restoration events, one along Hidden Creek and the other along Dutch Creek. Being “on-the-ground” is vital to demonstrating our commitment to the area and the people who use it.

Special thanks to our funding partners for making this project possible: Foundation, RoundTable, Government of Alberta, [Alberta Ecotrust](#) and our project partners [Cows and Fish](#).

Article by: Oldman Watershed Council

Integrated Watershed Management Planning in the Milk River

The [Milk River Watershed Council Canada](#) (MRWCC) has been working on a number of exciting projects and building on the momentum of our completed Integrated Watershed Management Plan.

The first phase of the innovative invasive weed mapping project was completed in fall of 2015. The project mapped invasive weeds along the Milk River using GPS-controlled drones that collected high-resolution images while flying over the river corridor. These data allowed us to draw maps that were not possible in the past. The maps are a new tool for land managers and municipalities throughout the watershed to combat invasive plant species and they provide valuable information on watershed health and integrity for the MRWCC.



Photo: Earth Matters conference participants pilot the X-Stream Science biological monitoring protocols.

X-Stream Science can be used by stewardship groups or high school classes to learn about their local river or stream (coming soon: wetlands and rivers), and participate in a monitoring program. Participants monitor biological, chemical, and physical parameters of the stream using scientific protocols, and the data are collected and shared online to be compared over time. The data will contribute to science-based decision making and planning to help our watersheds.



Photo: X-Stream Science WPAC team at the Leadership Clinic (L to R): Joey Temple, Susanna Bruneau, Nathalie Olson, and Chantelle Adams.

The MRWCC is working on another project with industrial sector partners to produce a community report on groundwater quality in areas where oil and gas operations are occurring in the watershed. One of the more interesting lessons from this project is that there is less data on groundwater quality than anticipated, in part because many landowners did not participate in water quality testing at the time oil and gas operations were proposed in their area. This information is not only valuable to the companies for continued assurance of social license to work in our community, but it is extremely valuable to individual families and well owners. The MRWCC encourages all well owners to test their water quality regularly and keep records for determining schedules for well maintenance and ensuring well water quality remains reliable.



Photo: 2015 Weed Pull Day

During our strategic planning session held in the fall of 2015, the MRWCC developed goals for the 2016 fiscal year. There was a renewed interest in working to resolve water scarcity and water security concerns. MRWCC identified projects that mutually benefit the Milk River watershed community and are prioritized within the South Saskatchewan Regional Plan. These projects will continue to give our community a strong voice in regional initiatives such as the potential re-designation and expansion of Twin River Heritage Rangeland and the development of a Biodiversity Management Framework.

MRWCC has also agreed to expand capacity and renew focus on community outreach and education efforts. An Education Outreach Coordinator was hired to work closely with local schools and groups within the watershed. Several outreach projects are

Staff from these WPACs completed the Canadian Aquatic Biomonitoring Network training and worked together to develop user-friendly protocols for the citizen-science program. In fall 2015, the program was piloted at the Earth Matters Conference and in high school classes in the Battle River watershed. The team also attended the [Alberta Council for Environmental Education's](#) Leadership Clinic where they obtained further input to finalize the protocols and advance the program materials. The team is finishing the Field Sheets and Leaders Manual this winter, and plans to initiate the program with at least 10 schools this spring.

Each of the WPACs is providing its own equipment and funding program delivery with help from partners, are also hoping to cost-share to provide shared resources such as online site data storage.

As the program continues to develop, the Battle River, Red Deer River, and Beaver River WPACs will share the program with all WPACs with the hope of offering it across the province.

Article and photo by: Nathalie Olson, Battle River Watershed Alliance

Vermilion River Watershed Restoration and Enhancement Project

In landscapes heavily altered by human activity, maintaining the quality and efficiency of wetlands and riparian areas is paramount to the health of the overall watershed. Such is the case in the Vermilion River Watershed (VRW), where the primary lands use—agriculture—both affects and depends on watershed functionality.



Photo: North Saskatchewan River, Edmonton

After the watershed received a “poor” health score in 2005, VRW stakeholders took steps to improve it through the creation of the Vermilion River Watershed Management Plan (2012). This plan, developed with significant support and expertise from the North Saskatchewan Watershed Alliance (NSWA), recommends actions

underway.

After years of dedicated planning with the Milk River community and stakeholders, the MRWCC's Integrated Watershed Management Plan (IWMP) is complete. The IWMP makes recommendations to improve the management of surface water and groundwater supply and quality, riparian areas and wetlands, biodiversity, land use, and economy in the watershed. The Milk River IWMP was approved unanimously by the Milk River Watershed Council Canada on September 24, 2015.

The MRWCC is also gearing up to start production of the third State of the Watershed (SOW) Report to be produced in 2018. Two previous editions of the SOW Report were completed in 2008 and 2013. The latter was a transboundary report in conjunction with Montana and Saskatchewan watershed partners. This is a significant achievement in moving towards resource management that is uninhibited by political boundaries.

The MRWCC is also assisting Alberta Environment and Parks to develop a water management plan for the Milk River Basin in Alberta. This planning process is intended to address some of the recommendations in the Milk River Integrated Watershed Management Plan. The main objectives of this phase are to:

1. Authorize the ability to transfer water allocations under the *Water Act*
 2. Determine the need to either maintain current moratoriums in the basin, or to close the basin to new surface water allocations under the Water Act
- A public meeting was held last fall to discuss the draft Terms of Reference for this plan, and feedback from that session and from other elements of the planning process will be used to inform the development of an Approved Water Management Plan for the Milk River basin. This phase of the planning process is not intended to determine environmental flows, but will set the stage for future work and planning.

The MRWCC also secured funding to initiate a riparian restoration and stewardship program through the Watershed Restoration and Resiliency Program and we are soliciting projects from residents and agricultural producers. Priority will be given to projects that will improve riparian health, build resiliency to both flood and drought impacts, and improve water quality within the

to achieve Alberta's Water for Life goals of 1) safe, secure drinking water, 2) healthy aquatic ecosystems, and 3) reliable quality water supplies for a sustainable economy. Many of these actions incorporate local stewardship activities, an example of which is the VRW Restoration and Enhancement Project. With financial support from Alberta Environment and Parks, Environment Canada, this project provides funding for landowners to improve wetland and riparian areas on their property.

In November 2015, the newly incorporated Vermilion River Watershed Alliance (VRWA) and NSWA held several public launches throughout the watershed to give community members an opportunity to learn more about the VRW, as well as chat candidly about project ideas like off-stream watering systems, fencing off sensitive riparian areas and improving wetland habitat for wildlife. Unlike other programs that often incorporate cost-sharing agreements, this project provides full-cost funding to successful applicants; an Environmental Farm Plan is not required.

Funding opportunities like the VRW Restoration and Enhancement project, combined with the local leadership of the VRWA and the participation of those who steward the land, are a positive step forward in improving the health of the watershed. Forming municipal watershed partnerships such as the VRWA, Sturgeon River Watershed Alliance and Headwaters Alliance is a key strategy in the implementation of the Integrated Watershed Management Plan for the greater North Saskatchewan River basin.

Article by: Mara Erickson, North Saskatchewan Watershed Alliance

watershed.



Photo: Hike Tour

MRWCC, in collaboration with Fisheries and Oceans Canada, is planning to conduct a project to look at winter habitat use by fish in the Milk River, including an under-ice scoping study. The Council has an interest in fish and aquatic life as directed under the Water for Life strategy and as identified in the Milk River IWMP. This project will identify fish overwintering habitat to determine presence of species-at-risk fish and later implement stewardship measures to maintain or improve overwintering habitat through riparian protection, improvements or restoration that will be implemented with adjacent land managers. The project will address questions regarding winter habitat use and stewardship, and will inform environmental in-stream flow needs.

Looking ahead, the MRWCC will continue with projects that support implementation of the Milk River IWMP, including work with municipal partners and local producers to implement BMPs to improve riparian health and water quality. We will also:

- Summarize available groundwater quality information in a community report to inform source water protection planning,
- Continue with the cooperative invasive vegetation and riparian mapping, using near-infrared spectroscopy and low level drone data collection, and
- Continue to expand and refine projects on education and outreach.

Article by: Mary Lupwayi, Milk River Watershed Council



Photo: Geraldine Lake, Jasper

For more information about *Water for Life*:

<http://www.waterforlife.alberta.ca/>

For more information about the Alberta Water Council:

<http://albertawatercouncil.ca/>

Photo by: Alberta Water Council

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