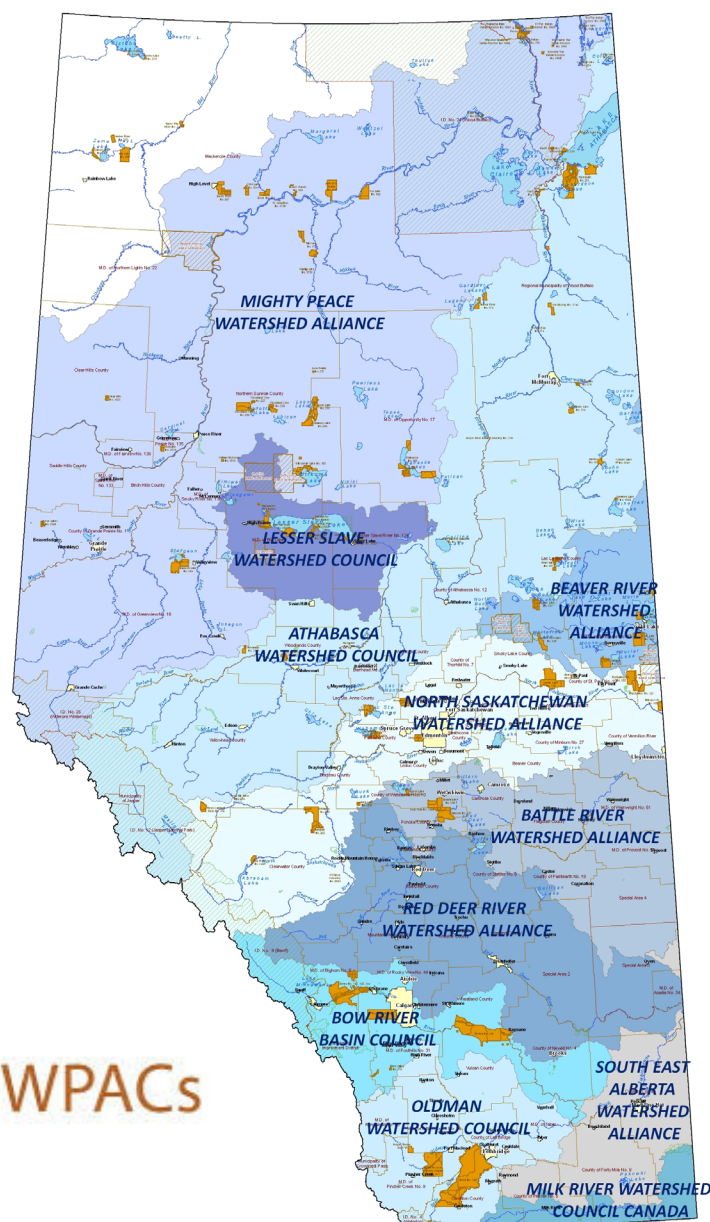


Watershed Planning and Advisory Councils

Achievements

Integrated Watershed Planning

Collaboration



Alberta WPACs



ALBERTA

ENVIRONMENT AND PARKS

Office of the Minister

Minister Responsible for the Climate Change Office

MLA, Lethbridge-West

Message from the Honourable Shannon Phillips Minister of Environment and Parks

In 2003, Water for Life set the stage for a new way of working with Albertans to ensure safe, reliable, quality water supplies for a sustainable environment and growing economy. This vision was reaffirmed in 2008 and adapted to fit within the context of a new regional management system for Alberta under the Land-use Framework. Over this time, 11 Watershed Planning and Advisory Councils were established and designated by the province to provide leadership in regional watershed reporting, planning, and community engagement.

This year, six watershed councils are celebrating 10 or more years of achievement. All councils have contributed collectively to an impressive body of work ranging from innovative methods for engaging local citizens in collaborative planning, comprehensive reporting on the state of our watersheds, leading wetland and riparian restoration work to strengthen the resilience of our watersheds to future flood and drought events. Councils have also helped empower Albertans to be stewards of their watersheds through creative water literacy programs.

The perseverance and commitment by the watershed councils to find innovative ways to adapt to emerging watershed management priorities, serve as a local advocate for our policy and planning work, and engage their networks to leverage resources on our shared priorities is a testament to the success of this collaborative partnership model.

Delivering on the objectives of the Water for Life strategy is one of my top priorities, and I encourage all stakeholders and community leaders to take an active role and invest in the collaborative work of our Watershed Planning and Advisory Councils.

The 2016 Summit celebrates the achievements enjoyed by each of the watershed councils over the past years, evaluates the functions and services that have been particularly valuable to our collective partner organizations, and uses this insight to mobilize our resources to ensure Albertans will always be able to enjoy a high quality of life and a healthy environment.

On behalf of the Government of Alberta, I would like to commend all Watershed Planning and Advisory Councils for their collective achievements. As the Minister of Environment and Parks, I look forward to a co-operative and positive relationship to help ensure that Albertans have a healthy, secure, and sustainable water supply.

Sincerely,

Shannon Phillips
Minister of Environment and Parks

208 Legislature Building, 10800 - 97 Avenue, Edmonton, Alberta T5K 2B6 Canada Telephone 780-427-2391 Fax 780-422-6259

Athabasca Watershed Council



The Athabasca Watershed Council (AWC) has addressed various challenges in recent years. We are pleased to report, however, that many of our efforts are coming to fruition.

Over the past two years, we have focused our efforts on two primary challenges: governance and limited capacity. First, we spent a year reviewing and updating all of our governance documents. Then, with a solid governance structure in place, we turned our attention to rebuilding capacity. As a way of reducing meeting costs, we held most of our meetings at locations in Athabasca and Lac La Biche, which are centrally located in the watershed. Despite prudent financial decisions, with limited funding and no staff, our activities were limited during this period. To the Board's credit, we have benefited from a slate of very talented, conscientious and dedicated Board members, several of whom have gone beyond the call of duty in their service.

Recently, we have renewed our efforts to build relationships with partners throughout the watershed, for example:

- Alberta WaterSmart has invited the AWC to be involved in the Athabasca River Basin Initiative, a project that will result in a modelling tool for the watershed, among other things.
- In November 2015, the Athabasca River Basin Research Institute (ARBRI) hosted the ARBRI Days Conference in Edmonton. We were privileged

Email: admin@awc-wpac.ca
Phone: (780) 213-0343
Website: www.awc-wpac.ca



AWC's new office location - in the Athabasca Train Station.

to present an overview of the AWC's activities and we look forward to continued collaboration with the Institute, which is housed at Athabasca University's main campus in Athabasca.

- In March 2016, we met with professors from the University of Alberta's Intersections of Sustainability research network, and we hope to develop that collaboration further as the project carries on.
- To build new relationships, we have begun bolstering our online presence, including improvements to our website, additions to our Interactive Atlas, and more effective use of social media to engage stakeholders.

Over the past year, we have also made major advances in our efforts to rebuild capacity:

- The AWC has a new office, located in the Athabasca Train Station. The appeal of this



Athabasca River.

location is exciting: it is an historic building (104 years old), situated on a busy street in downtown Athabasca (Hwy 2), and it is directly in front of the Athabasca River, literally a “stone’s throw away” – okay, maybe you’d need to have a good arm!

- We now have an Administrator, Jason Ponto, to help move our organization forward in its goals. Jason grew up in Athabasca, and he will soon have completed a PhD in Sociology. He’s been a tremendous asset to the team already, and we look forward to his continued help.

Over the coming months and years, we will build on these and other successes as we continue to develop relationships with stakeholders throughout the basin. We have recently identified three sub-regions within our watershed: the upper, middle, and lower basins. We are actively seeking municipal representation from all three sub-regions on our Board of Directors,

with two of the sub-regions already represented. We are also seeking Aboriginal representation on our Board, which is seen as a vital need in our watershed.

With our series of State of the Watershed Reports (five volumes) complete, we are currently working on a condensed summary of the findings contained in those reports. This summary will be less technical and more readily accessible than the original volumes, and will be a valuable tool for educating and engaging citizens and other stakeholders in communities throughout the Athabasca watershed. Following this step, we look forward to preparing for the Integrated Watershed Management Planning process.

Although we have faced various challenges over the past few years, we have built a solid foundation, and we continue to work towards more successes over the years to come.

Battle River Watershed Alliance



Operating out of Camrose in east-central Alberta, the Battle River Watershed Alliance (BRWA) is the WPAC for the Battle River and Sounding Creek watersheds in Alberta.

The BRWA is made up of a board, several committees and five staff members, all of whom have been on the team for over five years. The BRWA's Annual Reports and 2015-2020 Strategic Plan can be found on our website at: www.battleriverwatershed.ca/publications.

Email: otis@battleriverwatershed.ca

Phone: 1 (780) 672-0276

Website: www.battleriverwatershed.ca

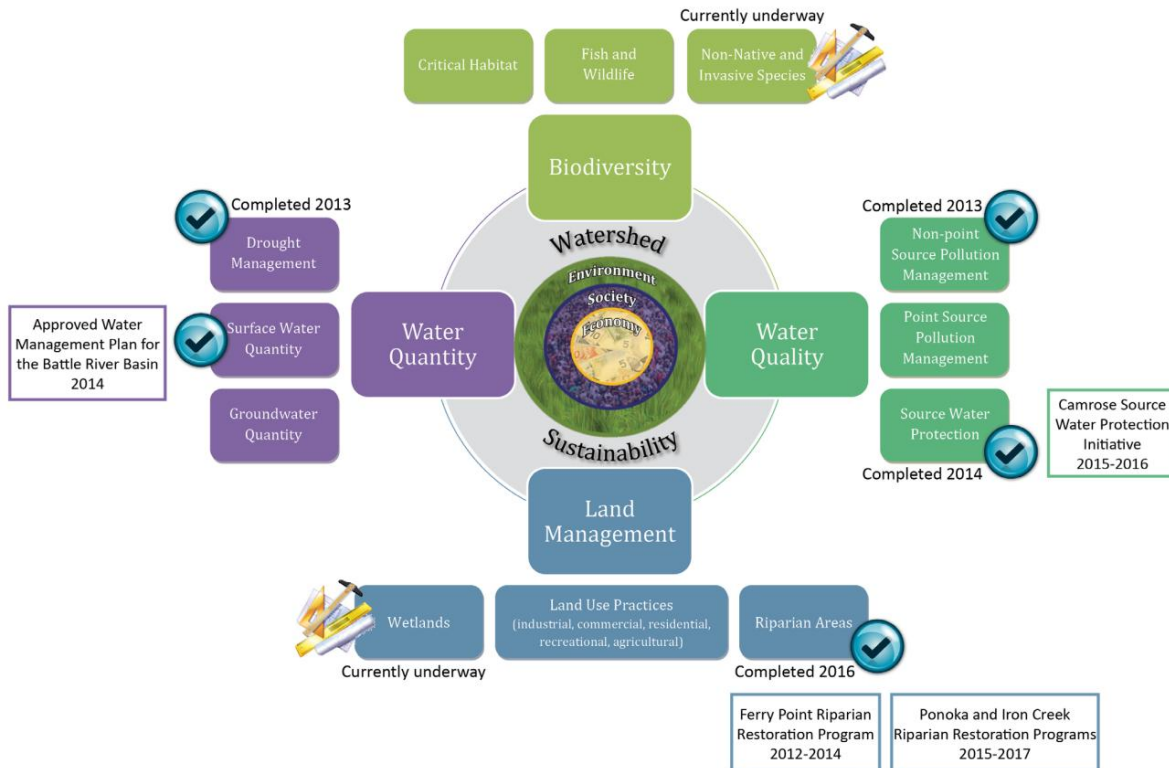
WATERSHED MANAGEMENT PLANNING

State of the Watershed Reporting

The BRWA completed its first State of the Watershed Report in 2011. The goal is to complete the 12 components of the WMP process by 2020. Work will then begin on an updated State of the Watershed Report.

Process

The diagram below displays the 12 components of the BRWA's Watershed Management Planning (WMP) process and the work completed to date. Each component includes a background research report, policy advice and implementation guidelines.



For more information on our WMP work, please visit: www.battleriverwatershed.ca/watershed-management.

WATERSHED MANAGEMENT PLANNING IN ACTION

Riparian Restoration Programs

Improving water quality and riparian health are key goals identified through the BRWA's WMP process. To that end, the BRWA has initiated two riparian restoration programs, the first along the Ferry Point reach of the Battle River (2012-14) and the second within Ponoka County (2015-17). The goals of these programs include working with local landowners and providing financial support for projects that help improve the health of the Battle River and its tributary streams. To date, 23 riparian health assessments and ten landowner projects have been completed.

Camrose Source Water Protection Initiative

In spring 2015, the Camrose Source Water Protection Initiative was launched as a joint effort between the City of Camrose, Camrose County and the BRWA. The goal of the initiative is to develop a Source Water Protection Plan for the Camrose region, which will outline actions to protect and improve water quality in the Battle River, its tributary streams and Driedmeat Lake. A draft plan has now been developed and will be presented to City and County councils for final approval in fall 2016.

CONNECTING PEOPLE TO PLACE FOR ACTION

Education, outreach and stewardship are important areas of work to ensure the goals of the BRWA and Water for Life are met. This is how we connect our watershed citizens to this beautiful place, so that they may take positive action.

Education Programs

The BRWA runs a series of programs to engage and inspire youth and adults in watershed appreciation and responsibility. These programs could not be offered without the assistance of our funders, including Alberta Environment and Parks (AEP). A few of our most popular programs are:

- Caring for Our Watersheds Program (Agrium)
- Discover Your Wetland (AEP)

- Explore More (AEP, Cargill, local municipalities)
- Experience Your Watershed (AEP, Cargill)
- Waste in Our Watershed (AEP, Battle River Community Foundation)
- X-Stream Science Program (Enbridge)

For more information on our education programs, please visit: www.battleriverwatershed.ca/youth-programs.

Community Outreach

Meeting community members where they are at is one way the BRWA successfully engages new audiences. We host events and attend those of our partners to share our mandate and engage new members. A few of these activities and events include:

- Alberta Saskatoon Pie Baking Competition
- Battle River Water Ceremony
- Battle River Watershed Festival
- Rolling Down the River Cycling Trips
- Youth Group activities such as 4H, Girl Guides, etc.

For more information on our community outreach, please visit: www.battleriverwatershed.ca/programs.

Stewardship Activities

The BRWA supports the work of local stewards, including watershed stewardship groups. We recognize their work with our very own OTIS award, and share knowledge through various presentations and events. A few of our stewardship activities are:

- Camrose Wildlife and Stewardship Society speaking events
- Outstanding in Stewardship (OTIS) Awards
- Pigeon Lake Watershed Association Committee Support
- Stewardship and naturalists groups presentations
- X-Stream Science for stewards
- Trout Unlimited Canada's Yellow Fish Road Program

For more information on our stewardship activities, please visit: www.battleriverwatershed.ca/stewardship.

Beaver River Watershed Alliance



Beaver River Watershed Alliance

The Beaver River Watershed Alliance's (BRWA) mission is to maintain or improve the ecology of the Beaver River Watershed while respecting the diverse values of the watershed community. This is achieved through broad community engagement, partnerships, sound scientific study, education, and the support and encouragement of implementing sustainable water management and land-use practices.

INTEGRATED WATERSHED MANAGEMENT PLAN (IWMP)

This past year has seen significant progress toward development of the BRWA IWMP, including:

- Establishment of an IWMP subcommittee with representation from key stakeholder groups;
- Establishment of a multi-disciplinary technical advisory team with local and regional water, ecology and land-use experts provided in-kind by: Ducks Unlimited Canada, Alberta Environment and Parks, Alberta Agriculture and Forestry, the Alberta Biodiversity Monitoring Institute, Alberta Lake Management Society, University of Calgary, Portage College, Devon, Canadian Natural Resources Ltd, and CPP Environmental;
- Active engagement with key implementers (particularly municipalities), First Nations and Metis about the IWMP process and how they can best be engaged;
- Development of a communications and engagement strategy;
- Review and synthesis of current state of the watershed issues, knowledge and management;

Email: info@beaverriverwatershed.ca

Phone: (587) 201-4345

Website: www.beaverriverwatershed.ca

- Development of a Draft IWMP with background on watershed management and first round goals and objectives, which will be brought to key implementers and stakeholders for feedback in the near future.

WATERSHED POSTER SERIES

The BRWA developed eight thematic posters to provide decision makers and the general public with easy-to-understand visual information about the extent of key stressors, vulnerable areas and important ecological features in the watershed: Water Movement, Distinctive Areas, Species at Risk, Wetlands, Groundwater, Human Footprint, Surface Water, and Riparian Areas.

The posters are intended to be used for BRWA presentations, workshops and meetings with stakeholders, decision makers (e.g. municipalities, industry, landowners) and the general public. The posters relate to watershed management planning, watershed assessment, stewardship and other programs. High school and college-level education programs may also be developed around these products. The digital versions of these posters are openly available on the BRWA website for anyone to use: www.beaverriverwatershed.ca/resources/poster-series/.



YOUTH ENGAGEMENT

Over the course of the year, the BRWA participated in over 50 programs and events throughout the watershed. At these events, the BRWA spoke and interacted with over 2,000 people about topics such as water quality, animal adaptations and local ecosystems. Examples of programs and events include:

- Lac La Biche's "Mad About Science" day camp program;
- Summer Library Reading Program and Bonnyville & District Centennial Centre's Eco Kids Camp;
- Parks Day at Sir Winston Churchill Provincial Park (with Alberta Environment and Parks);
- Lac La Biche's Environment Day, Cold Lake's Aqua Days, Canada Day and Festival of Words events;
- Classroom programming to over 600 students from grades 1 through 9, centered on topics such as the Boreal Forest, Needs of Plants and Animals, Wetlands, Ecosystems and Environmental Chemistry;
- "Walking with Moose" and "Wetland Walk" programs for local grade 5 and 7 classes, with the Moose Lake Watershed Society and Lakeland Agricultural Research Association;
- Annual calendar contest where youth submit entries with the theme "what is your favourite thing to do in the Beaver River Watershed?"
- Interactive programming for Sparks, Brownies, Beavers and Scouts groups in the watershed; and
- Development of X-Stream Science, with other WPACs (X-Stream Science is a junior/senior high school water quality testing program).

In September 2015, the BRWA hosted the 8th annual Great Canadian Shoreline Cleanup at Jessie Lake. Approximately 250 community volunteers, including students from Notre Dame High School, spent their morning removing 160 kg of litter and debris from the shoreline. We are very proud to say that this year we made the Great Canadian Shoreline Cleanup's Honor Roll list as the 6th largest shoreline cleanup in Canada!

LAKELAND NATURE KIDS

The BRWA has maintained a wonderful partnership with Nature Alberta and the Iron Horse Trail Association since 2013, bringing the Nature Kids Club (formerly Young Naturalists) to Lakeland with sponsorship by AltaGas. This environmental action program invites youth aged 3-12 and their families to observe, investigate and experience nature! The group plans an "Explorer Day" one Saturday every month (families can enjoy this for free with their Nature Kids membership). Some of the events that took place this year were snowshoeing, learning about local wildlife at a taxidermist shop, pond dipping, canoeing, star gazing, bat house construction, bird house and feeder building, as well as participating in the Yellow Fish Road program. One of our favourite Explorer Days was the canoe trip around Lac Bellevue in a voyager canoe! Highlights of the trip included being able to observe a muskrat and garter snake up close.

INDICES OF AQUATIC ECOSYSTEM VULNERABILITY

Funded by Alberta Environment and Parks, the goal of this project is to develop standardized indices that can be used over time to monitor, report and run scenarios on the state of aquatic ecosystem health in the Beaver River Watershed. Models were developed for: occurrence or habitat suitability for sensitive lake water birds, lake water quality (nutrients), stream water quality (nutrients, dissolved oxygen) and fish community suitability.



X-Stream Science in action.

Bow River Basin Council



The Bow River is our lifeline. The Bow River Basin Council (BRBC) is a multi-stakeholder, charitable organization dedicated to the improvement and protection of this precious resource. In particular, we focus on:

- The quality and quantity of groundwater and surface water
- The care and conservation of wetlands and riparian areas
- The effects of human activity and land use on water resources
- The state of our aquatic ecosystems

The BRBC's driving force is its membership, which encompasses municipalities, corporations, First Nations, government, non-governmental organizations and individuals.

Since 1991, the BRBC has taken on projects that make lasting contributions to improved water quality and watershed health. These collaborative initiatives engage members, community groups, youth groups, educational institutions and interested individuals.

CORNERSTONES OF FUTURE BRBC WORK

Quarterly Education and Networking Forums: The BRBC provides highly inclusive forums that establish relationships and communication linkages that are necessary for consensus-based decision making. These flagship events have been successful for over

Email: mark.bennett@calgary.ca

Phone: (403) 268-4596

Website: www.brbc.ab.ca

16 years and remain popular with a broad audience. In addition to these quarterly forums, the BRBC holds two annual forums with Science and Legislation/Policy themes.

Watershed Planning: The BRBC seeks to lead through significant involvement in the Bow Basin Watershed Management Plan (BBWMP) and other processes, to establish management objectives for water quantity, water quality and other elements like wetlands, riparian areas and groundwater. These plans provide comprehensive frameworks for decision makers.

Environmental Conditions Reporting (ECR): The BRBC maintains an online ECR tool, highlighting watershed conditions throughout the basin with timely updates of real-world data and relevant information. Maps and data are updated to provide current information. This catalyzes policy, planning, education and research activities.



Lake Agnes. Photo: Mike Murray.

BRBC COLLABORATIVE PROJECTS

Riparian Absorptive Landscapes Pilot Study: The intent of this project is to use the biogeochemical functionalities of plants and permeable soils to establish self-sustaining riparian bio-retention systems.

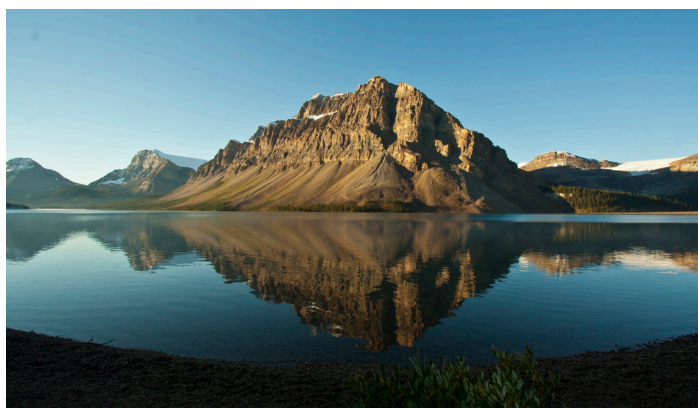
Watershed Simulation to Identify Priorities for the Watershed Resiliency and Restoration Program: This project provides an analytical tool for assessing the consequences of watershed restoration and conservation strategies in the context of the cumulative effects of historical and expected future land use and landscape change.

Jumpingpound Creek Water Management Plan Implementation: Support of the implementation of this plan will help the Jumpingpound Creek Watershed Partnership to achieve many WRRP outcomes.

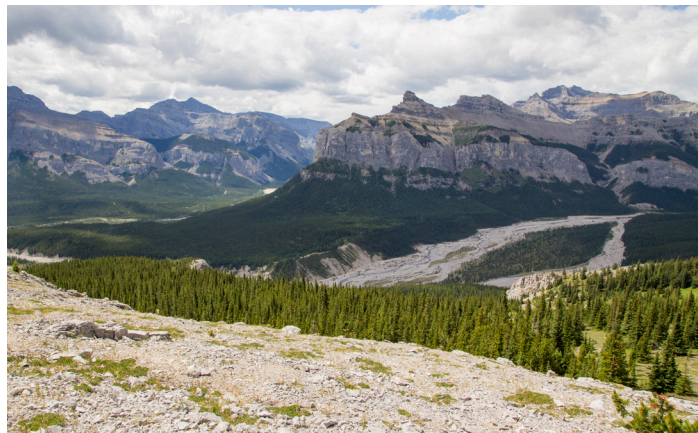
SIGNIFICANT MILESTONES

Bow Basin Watershed Management Plan Phase I (2008)

Based on an assessment of outcomes, planning priorities and available resources, phase one of the BBWMP focused on water quality. The plan was developed using an environmental performance management system to achieve surface water quality outcomes with associated timelines for management actions, research, monitoring and evaluation. The plan contains reach-specific water quality objectives, targets, warning levels and baseline water quality data.



Bow Lake. Photo: Mike Murray.



View from ridge, Ghost Watershed. Photo: Mike Murray.

Bow Basin Watershed Management Plan (2012)

This phase focuses on four inter-connected themes: land use, headwaters, wetlands and riparian areas. Its purpose is to provide recommendations and guidance for natural resource managers and municipalities regarding land- and water-related decisions. Four BRBC committees are currently working to achieve the goals of this phase.

State of the Basin Report

State of the Basin reporting is one of the BRBC's signature initiatives. Our aim is to provide reliable information to guide water management decisions, improve our understanding of the watershed and increase public awareness. In 2010, the report was produced using a web-based GIS platform, allowing users to view maps and data based on specific interests and indicators. 2015 (now referred to as ECR) saw the implementation of new tools and updates to make the information easier to access and to refresh data at shorter intervals.

BRBC AWARDS

- 2008 – North American Lake Management Society (NALMS) Technical Excellence Award
- 2009 – Calgary Award for Environmental Achievement
- 2010 – Alberta Stewardship Network (ASN) Grassroots Environmental Stewardship Award
- 2010 – Alberta Emerald Award

Lesser Slave Lake Watershed Council



THE LESSER SLAVE WATERSHED COUNCIL (LSWC)

- Recognized as a WPAC in 2007 but an active group since the mid-1990's.
- 21 Board seats including five First Nations and two Metis Settlements. Currently we have five Board vacancies.
- Two full-time staff at our High Prairie office: Meghan Payne, Executive Director, and Kaylyn Jackson, Watershed Coordinator.

Email: info@lswc.ca
Phone: (780) 523-9800
Website: www.lswc.ca

LSWC's STRATEGIC GOALS

- Establish an ongoing collaborative planning and management framework for the Lesser Slave Watershed.
- Facilitate watershed research that addresses issues and enables management actions within the watershed.
- Promote watershed awareness and literacy through education, outreach and stewardship programs.
- Establish a strong operational model in which the LSWC is sustainable and has clear governance, capacity and funding.

WATERSHED FACTS

- The surface area of Lesser Slave Lake is 1,160 km².
- The area of the entire watershed including the lake is 20,110 km².



Board members at the Annual General Meeting, 2016.



- The volume of Lesser Slave Lake is 12,380,000,000 m³.
- All surface water license holders have a maximum allowable withdrawal of 11,205,000 m³ (this seems large but it is less than one thousandth of the lake volume).
- Ground water licenses in the watershed total 587,600 m³/year.
- Evaporation can lower the lake level by up to 610 mm annually.
- The average annual rainfall is about 470 mm.

WATERSHED PLANNING

The LSWC is in the process of developing an Integrated Watershed Management Plan for the Lesser Slave Watershed. In previous years the LSWC engaged with the community, stakeholder groups and local governments to scope the major watershed issues and concerns the plan should address.

The Lesser Slave Watershed Management Plan will focus on the following themes: water quality, water quantity, biodiversity, riparian areas and wetlands. Recommendations for managing the watershed will consider the social and economic values of those who live, work and play in the watershed. Recommendations will also address environmental protection. The plan will be completed in spring 2017 and we will then work with governments, stakeholders and other partners to implement the plan recommendations.

PAST PROJECT HIGHLIGHTS

- State of the Watershed Report (2008)
- Aerial Riparian Health Assessments – South Heart, Swan River and Lesser Slave Lake
- Lesser Slave River surveys, habitat assessment and modelling
- Lesser Slave Lake Bathymetry update (2013)
- Ongoing educational partnership with the Lesser Slave Forest Education Society (since 2010)
- Development of Lesser Slave Lake Stewardship Handbook (2012) and distribution of over 2500 copies around the watershed
- Terms of Reference for an Integrated Watershed Management Plan completed (2014)
- Development of a Communication and Engagement Plan and information materials for the IWMP project (2015)
- Watershed Technical Update (2015) on water quality, nutrient budget, paleolimnology and fisheries
- ALMS annual workshop hosted in Slave Lake (2013)

On August 11, 2016, the LSWC gratefully accepted a 2016 Watershed Resiliency and Restoration Program grant from Minister of Environment and Parks, Shannon Phillips, and local MLA and Minister of Municipal Affairs, Danielle Larivée. This grant will support riparian and wetland enhancement projects in the watershed and lead to improved landscape resiliency to the effects of climate change. The LSWC is also working with four cattle producers to improve watershed health by implementing best management practices.



Mighty Peace Watershed Alliance



In April 2016, the Mighty Peace Watershed Alliance (MPWA) celebrated five years of operations. Since 2011, the MPWA has been the official WPAC for the Peace and Slave River basins. This multi-sector, not-for-profit society is committed to planning for an ecologically healthy watershed while ensuring environmental, economic and social sustainability.

The MPWA is a group of active stakeholders and communities that use consensus decision making, adaptive management, and innovation to understand and promote living within the watershed. The Board reports on the state of the watershed, leads watershed planning activities, promotes best management practices and develops educational programs.

The organization continues to grow and develop. In 2015, the Board completed their first State of the Watershed report (www.mightypeacewatershedalliance.org).

INTEGRATED WATERSHED MANAGEMENT PLAN (IWMP)

The Board has spent countless hours working on the IWMP by researching, discussing, vetting, learning, educating, reviewing policy and planning for a variety of items that are related to water. (An IWMP can look at absolutely everything that happens on the landscape that affects water quality and quantity.) The MPWA will work through agreed processes to identify common priorities and then engage stakeholders to find workable actions and beneficial management practices, and provide advice for policies and guidelines.

Email: mpwa.execdirector@telus.net

Phone: (780) 324-3355

Website:

www.mightypeacewatershedalliance.org

A Steering Committee has been struck to guide the IWMP process. Two working groups (Water Quality, Availability and Consumptive Use; and Wetlands and Wetlands Loss) were also struck and have provided draft recommendations to the MPWA Board. In 2016-17, the Board will work through the recommendations submitted by the working groups. Two new working groups will also be established (Non-Saline Groundwater, and Peace River Flow Regime). Work will then begin on preparing a draft plan that incorporates the working groups' recommendations. The draft plan will then go out to people in the watershed for review.

ACTIVITIES

2015-16 was a very full year for MPWA, with the Board framing goals and objectives, and staff taking on the task of implementing them. The staff consists of three full-time positions: Executive Director, Watershed Coordinator, and Education & Outreach Coordinator. Staff collaboratively lead and support a number of initiatives and general organizational duties. Key areas include:

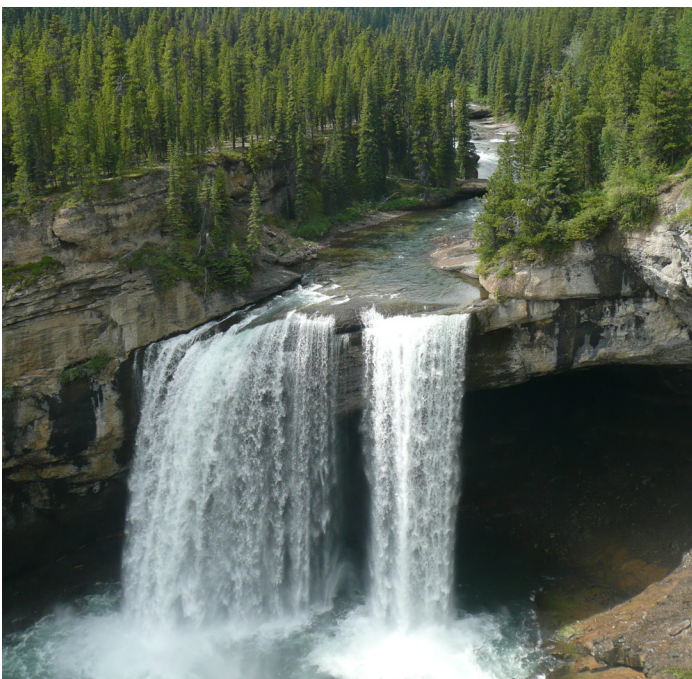
- IWMP Phase One: establishment and support of two working groups.
- Redwillow and Heart River Watershed Restoration Plans, funded by the Environmental Damages Fund (Environment and Climate Change Canada).
- Wapiti River Water Management Plan: ground work to inform the development of different water management scenarios (the Steering Committee will then evaluate trade-offs and benefits for the Wapiti River).
- Ongoing engagement with councils, stakeholder groups and residents through meetings, presentations and forums.
- Increased education opportunities (workshops, school presentations and tradeshow attendance).

- Participation in broader processes such as joint oil sands monitoring, land-use planning, Alberta WPACs, play-based energy resource pilot projects, etc. (a “play” refers to the activities associated with petroleum development in an area).
- General organizational and Board coordination functions.

2016-17 will see the MPWA continue to work and engage the public on similar projects.

GOALS

- The MPWA is a strong, vibrant and sustainable organization.
- The Board and members of the MPWA are well educated about air, water and land issues in the watershed and are open to innovative ideas and practices.
- The MPWA is well known and accessible to residents in the watershed.
- Watershed residents have access to safe, secure drinking water.
- Water quality, quantity and seasonal rates of flow in the Peace Watershed are understood and advice is provided to the appropriate groups.
- Watershed stewardship is widely supported by



Kakwa Falls. Photo: Adam Norris.



Confluence of the Smoky and Peace rivers.

residents throughout the watershed.

The MPWA provides sound science, knowledge and information to a number of initiatives. It is a strong voice and can deliver appropriate education opportunities and forums for open and frank discussions. The MPWA works with municipalities and organizations to find practical solutions for water issues. Specifically, it works through agreed processes to identify common areas and then engages stakeholders to find workable actions, beneficial management practices, and appropriate policies and guidelines. Through stakeholder engagement, the MPWA provides the opportunity for stakeholder initiatives, concerns and issues to be brought to light.

THE BOARD

The experience, insights and knowledge of the Board of Directors is invaluable and a definite benefit to all the people within the Mighty Peace Watershed (the largest watershed in Alberta). Seats at the table are filled by government, indigenous communities, non-governmental organizations, and industry; 18 out of 21 seats are filled and there are currently 13 named alternates.

The Board is dedicated and committed to the goals of the Alberta Water for Life Strategy: safe, secure drinking water; healthy aquatic ecosystems; and reliable, quality water supplies for a sustainable economy.

Milk River Watershed Council Canada



During the 2016 Milk River Watershed Council Canada (MRWCC) strategic planning session, MRWCC Council came up with a set of goals for the 2016/17 fiscal year, and took a renewed interest in working towards resolution of water scarcity and security concerns. The Council also identified projects that mutually benefit the Milk River Watershed community and are prioritized within the South Saskatchewan Regional Plan. The MRWCC will continue to be a strong voice for the watershed in regional initiatives, such as the development of a Biodiversity Management Framework.

After multiple years of dedicated planning with the Milk River community and stakeholders, the MRWCC's Integrated Watershed Management Plan (IWMP) was completed in September 2015. The IWMP makes recommendations to improve the management of surface and ground water supply and quality, riparian areas and wetlands, biodiversity, land use and economy. Recommendations in the plan are currently being implemented.

The MRWCC has partnered with Alberta Environment and Parks, Cardston County, County of Warner and Cypress County to conduct a water monitoring program on the Milk River and its tributaries since 2006, marking this the 11th year of water monitoring. This long-term program serves to establish baseline conditions that can be used to compare water quality trends through time.

Email: mary@mrwcc.ca

Phone: (403) 647-3808

Website:

www.milkriverwatershedcouncil.ca

In addition, the Council is assisting a local Red Creek Watershed Stewardship Group by providing program coordination and monitoring assistance in conjunction with the County of Warner.

The MRWCC has also expanded its capacity with a renewed focus on community outreach and education efforts. The Education Outreach Coordinator is working closely with local schools and community groups to bring awareness to watershed management initiatives and to promote youth involvement in environmental awareness and watershed conservation management strategies. Some of the outreach projects underway include:

- Classroom presentations;
- Participating in the Agrium-sponsored Caring for Our Watershed Program;
- Partnering with Alberta Environment and Parks and local schools to develop and implement a Youth Engagement Program to deliver watershed-related education materials and foster a stewardship ethic within local schools;
- Offering an extensive on-line credit course for high school students;
- Hosting the Annual School Poster Contest; and
- Partnering with local rural municipalities, Alberta Conservation Association and the Government of Alberta to develop and deliver the annual Southern Alberta Youth Range Days program (an interactive event for youth and families interested in learning about a variety of rangeland, watershed, wildlife and other topics related to natural resource management).

The MRWCC is working on an innovative invasive-weed mapping project along the Milk River using GPS-controlled drones to collect imagery that is then interpreted through spectral recognition to build digital maps. The idea is to create a mapping tool for land managers and municipalities throughout the watershed to combat invasive plant species, while providing valuable information on watershed health and integrity for the MRWCC.

The MRWCC is also assisting Alberta Environment and Parks to develop a water management plan for the Milk River Basin in Alberta. Public meetings have been held to discuss the draft terms of reference for the plan and input gathered throughout the process will be used to inform the development of an Approved Water Management Plan for the Milk River Basin.

The MRWCC secured funding for Milk River residents and producers through the Watershed Restoration and Resiliency Program to initiate a riparian restoration and stewardship program. Project implementation began in spring, 2016. Nine landowners with 13 project sites have been identified and over 5,000 trees have been planted to restore riparian areas that are prone to soil erosion. Exclusion fencing has been constructed on six sites to manage livestock near riparian corridors and adjacent to habitat enhancement sites, and six off-stream cattle watering systems have been installed on identified sites.

The MRWCC is also working on a project with Alberta Health Services to continue with the groundwater well monitoring program. The goal of the project is to observe long-term trends of groundwater quality to ensure that domestic and livestock drinking water is safe and within established



Milk River Watershed landscape.

guidelines. Additional wells are being added in local areas of high-density industrial development that are identified as a community concern.

The MRWCC has secured funding from the Habitat Stewardship Program to conduct a study on winter habitat use by fish in the Milk River. The study will be done in collaboration with Fisheries and Oceans Canada, and will address gaps as directed under the Water for Life Strategy and as identified in the Milk River IWMP. This project will identify overwintering habitat to determine the presence of species at risk and later implement stewardship measures to protect riparian areas and restore adjacent lands.

Community involvement programs currently underway include:

- Annual canoe and hike tours to showcase the Milk River Watershed;
- Participation in Milk River Bonanza Days to promote watershed management activities;
- Partnership with Writing-on-Stone Provincial Park to host a weed pull day;
- Hosting a Xeriscape Workshop, helping property owners to create and maintain varied and colourful landscape plans that use drought tolerant plants;
- Production of a bi-annual "Meander" newsletter publication;
- MRWCC website maintenance; and
- Community awards programs: Environmental Stewardship Award and Heritage Tree Award.

The MRWCC is also partnering with other stakeholders to promote transboundary relations with Montana and Saskatchewan by hosting meetings, workshops and tours.

Looking ahead, the MRWCC will continue with projects that support implementation of the Milk River IWMP, including working with municipalities, local producers and other stakeholders to implement best management practices that improve riparian health and water quality, and continuing to expand and refine projects on education and outreach.

North Saskatchewan Watershed Alliance



The North Saskatchewan Watershed Alliance (NSWA) was appointed in 2005 and has been successful as a multi-stakeholder watershed protection and improvement partnership for the North Saskatchewan River Basin.

In partnership with governments (provincial, municipal and federal), First Nations, industry, utilities, agricultural groups, environmental groups and many other watershed stakeholders, the NSWA works toward its vision: "People working together for a healthy and functioning North Saskatchewan River watershed – today and tomorrow."

In 2012, the NSWA published its Integrated Watershed Management Plan (IWMP) which provides management advice to achieve the three goals of Alberta's Water For Life Strategy (safe, secure drinking water; healthy aquatic ecosystems; reliable, quality water supplies), and provides a framework for the NSWA's projects and activities.

Much of the NSWA's work is delivered through municipal watershed partnerships: the Sturgeon River Watershed Alliance, the Vermilion River Watershed Alliance and the Headwaters Alliance. The NSWA provides technical and administrative support to all three partnerships. The NSWA is also involved in educational activities and multi-stakeholder engagement to support its mission and purpose.

The Sturgeon River Watershed Alliance (SRWA), which consists of 11 member municipalities and two NGOs, assesses the policy and technical information needs for that river basin. Steering and technical committees bring focus to the SRWA's vision and work plan, and emphasize the importance of incorporating watershed planning into daily municipal work.

Email: water@nswa.ab.ca
Phone: (587) 525-6820
Website: www.nswa.ab.ca

In 2015, the NSWA received a grant from the federal Environmental Damages Fund and began a comprehensive hydrologic overview of the Sturgeon River Watershed. Two phases of work were initiated: a review of all available hydrologic information and water licensing data in the basin, and the preparation of updated water budgets for the headwater lakes (Lac Ste Anne and Lake Isle). This work highlighted the need for more comprehensive water supply management within the watershed. A Community Partnership grant was awarded to the SRWA in 2016 and will be used to complete several major technical studies.

The Vermilion River Watershed Alliance (VRWA) was incorporated as a non-profit society in 2015, with representatives from five rural and three urban municipalities, provincial and federal governments, conservation organizations, academia and a drainage district. Their mission is to implement the Vermilion River Watershed Management Plan within a collaborative framework. This plan was developed in partnership with the NSWA and completed in 2012.



NSWA staff.

In August 2015, the VRWA and NSWA co-hosted an educational forum at Lakeland College in Vermilion to raise awareness and increase knowledge of the Vermilion River Watershed. This forum also served as an introduction to the Vermilion River Watershed Restoration and Enhancement Project (VRWREP), funded through grants from the Watershed Resiliency and Restoration Program (Alberta Environment and Parks) and the EcoAction and National Wetland Conservation Fund (Environment and Climate Change Canada). The project is being delivered in partnership with local landowners, who were invited to propose individual restoration and enhancement projects on their lands. In November, the VRWA officially kicked off the project with five events in Marwayne, Bruce, Vegreville, Two Hills and Mannville. Several wetland and riparian restoration and enhancement projects are currently underway.

2015 also saw the completion of two contracted technical studies on the Vermilion River: "Aerial Assessment of Riparian Areas of the Vermilion River and its Major Tributaries" (Golder Associates), and "Aquatic Ecosystem Assessment" (CPP Environmental), as well as a communications plan (Cows and Fish / Alberta Riparian Habitat Management Society). Communications strategies will continue in 2016-17 with the development of a dedicated website and a project video (Habit HQ).

The Headwaters Alliance (HWA) Steering Committee includes members from several counties and local municipalities, while numerous technical experts participate on the Technical Advisory Committee. In 2016, the HWA received a WRRP grant to initiate a riparian assessment and the NSWA organized a tour of the headwaters region to inform MLAs, municipal leaders and others about headwaters issues.

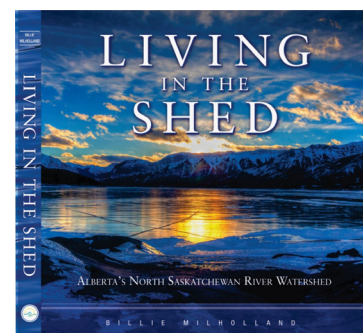
The NSWA is facilitating an inter-municipal group examining stormwater management issues in the Blackmud and Whitemud Creek watersheds. Terms of reference for the group were prepared with the intention of doing a Surface Water Management Study and subsequent municipal drainage plan/s. An Alberta Community Partnership grant has been received for the study and a consultant has been selected.

The NSWA also continues to provide leadership and advice to various stakeholder and watershed stewardship groups regarding watershed management. In 2016, the NSWA produced a State of the Watershed Report for Jackfish Lake and a Watershed Management Plan for Mayatan Lake. These projects involved partnering with Alberta Environment and Parks and municipal governments, compiling technical research and information and extensive stakeholder consultation. The NSWA also partners with municipalities to provide advice for other initiatives (e.g. the Wabamun Lake Subwatershed Land Use Plan).

To support our mandate to educate and increase public awareness of watershed information, the NSWA held several educational forums in 2015-16: the Vermilion River Watershed Forum, Sturgeon River Watershed Forum, and an NGO Forum to bring environmental groups together.

The publication of the book "Living in the Shed" (2015) was a major achievement. Aimed at the general reader, the book is designed to promote awareness and understanding of the importance of watershed management. It includes an overview of historical human impacts at the sub-watershed scale, as well as insights on local geography, geology, hydrology, history, culture, land use, fisheries and other natural attributes. A total of 7,500 books were printed and distribution of the book is underway, including free copies to schools in the basin.

To maintain stakeholder involvement and education, the NSWA actively uses social media (Facebook, Twitter) and distributes newsletters to members and contacts, with information about watershed issues and events. The NSWA website (www.nswa.ab.ca) provides information and digital copies of our publications.



Oldman Watershed Council



The Oldman Integrated Watershed Management Plan (IWMP) guides all of the Oldman Watershed Council's (OWC) work and includes eight goals for the community to achieve. So far we have tackled two of these goals and our accomplishments are summarized below. Please visit www.oldmanwatershed.ca for more information and to get involved!

Our primary goal is to "improve the understanding and strengthen the commitment of residents to the health of the Oldman watershed." Achieving this goal is paramount to the success of the other seven goals and we have made progress by increasing our communications and outreach efforts over the last 2.5 years. Watershed residents are hungry for unbiased, credible information and we have established ourselves as an information hub for all stakeholders and communities.

Our new emblem is a huge hit with every demographic, as is the new line of merchandise – t-shirts, vests, hats and stickers, which have become coveted rewards and are available for purchase. This new branding element now forms the core of a powerful, new interactive display that is widely used at events, presentations and media scrums, and is also borrowed by a variety of other groups.

We are in our second year of using social media channels and they have been powerful tools for

Email: info@oldmanwatershed.ca

Phone: (403) 330-1346

Website: www.oldmanwatershed.ca



Interactive display incorporating the new OWC logo.

us. We are now able to reach approximately 15,000 people every week. The strength of our social media means that related organizations depend on us to "get the word out" for events such as garbage cleanups, weed pulls, restoration events and so on. We are recognized as being a reliable, credible and timely source of information.

The OWC's film project is building enduring relationships and has allowed people to see themselves as central to watershed protection. The four videos created thus far have been watched and shared thousands of times by politicians, teachers, recreationists and more, allowing us to raise awareness about where water comes from, where it goes and what happens in between, while encouraging people to donate, volunteer and make a change.

Our Watershed Legacy Program continues to support people who are taking on-the-ground action to improve the watershed. Since 2009, we have

supported 39 projects totalling \$130,000, removed over 5,000 cows from creeks, supported 10 invasive weed pulls, installed 12 km of riparian fence line, and engaged over 3,000 people in workshops and events.

Our second goal is to “manage and protect the integrity of headwaters and source waters.” The Eastern Slopes of the Rocky Mountains are the source of about 90 per cent of the water in the Oldman watershed, so these headwaters are critical for everyone downstream – yet they have been facing increasing pressure from multiple uses.

The OWC regularly advises the Minister of Environment and Parks on headwaters issues and encourages the creation of recreational user fees to support increased enforcement, restoration, education and properly designed and built trail systems within a limited linear footprint density.

The OWC is also providing information and recommendations to Government of Alberta staff who are leading processes to establish the South Saskatchewan Biodiversity Management Framework, Livingstone and Porcupine Hills Linear Footprint Management Plan, and Recreation Management plans, and Castle Park Management Plan.

OWC’s Engaging Recreationists Project is encouraging backcountry recreationists to minimize their impact, building support for provincial government-led management changes and piloting engagement strategies to catalyze the creation of a provincial program. Since 2015, we have completed 108 recreationist surveys, engaged over 1,000 people in conversations about watershed management and health, and restored a large ford in Dutch Creek with the help of 50 volunteers and five partnering organizations.



OWC Executive Director Shannon Frank and Chair Doug Kaupp showing multiple use effects to Alberta Environment and Parks Minister Shannon Phillips and Lethbridge East MLA Maria Fitzpatrick in the Dutch Creek sub-watershed.

Red Deer River Watershed Alliance



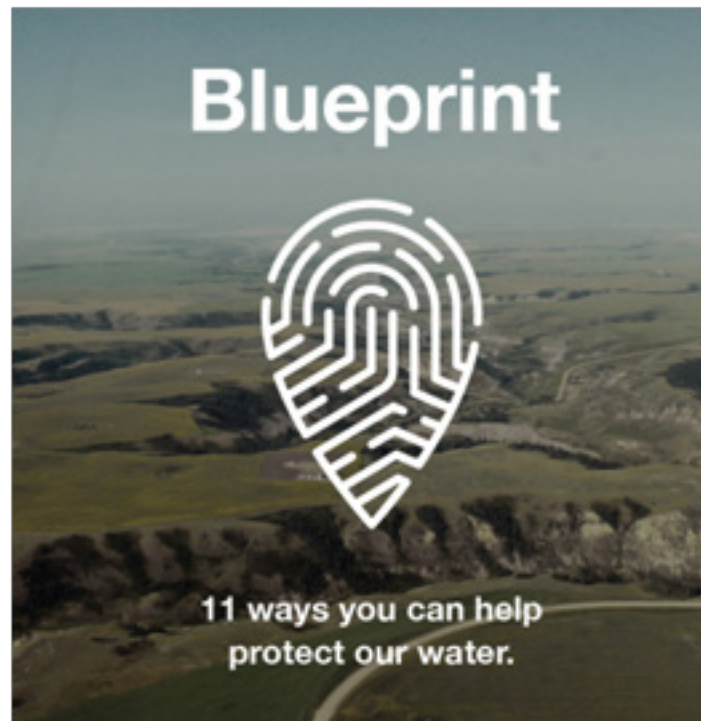
All too often we see a disconnect between people and water, between land-use decisions and water issues, between the planned and the actual. Over the past 10 years, the Red Deer River Watershed Alliance (RDRWA) has been working to bridge these gaps, acting as a forum for community members to learn, discuss watershed issues and find ways forward.

Here at the RDRWA, our team aims to help translate watershed issues into local actions, backed by sound science, thoughtful planning and respectful relationships. We have an engaged Board of Directors, a wide range of partners, members and volunteers, plus a team of four staff. To support our vision of a "healthy, dynamic, and sustainable watershed," our work is focused on four key areas:

WATERSHED REPORTING AND PLANNING

The RDRWA completed a comprehensive State of the Watershed report in 2009, and since then has committed to a multi-stakeholder process to develop an Integrated Watershed Management Plan. We are pleased to report that in March 2016, the RDRWA reached a major milestone in its planning efforts through the release of "Blueprint: An Integrated Watershed Management Plan for the Red Deer River Watershed" (Phase One, Water Quality). A decision support tool, Blueprint serves as advice to all watershed stakeholders to guide future decision making and activities in their respective areas of responsibility and interest. With a focus on maintaining and improving water quality, Blueprint covers topics such as lake management, water literacy, groundwater monitoring and source water protection, among others. The RDRWA is now working on Phase Two of Blueprint, which

Email: info@rdrwa.ca
Phone: (403) 340-7379
Website: www.rdrwa.ca



will address a broader range of watershed health issues (e.g., land use, biodiversity, riparian areas and wetlands).

OUTREACH, EDUCATION AND STEWARDSHIP

The RDRWA runs a series of programs to engage youth and adults to learn more about watersheds and encourage stewardship. In 2015-16, we engaged over 2,300 students in grades K-12 through curriculum-based environmental education programs, reached over 730 young people through summer camps, and built a relationship with local colleges to deliver post-secondary content and provide volunteer opportunities for students. The RDRWA and several partner WPACs have also launched "X-Stream Science," a citizen science program that provides hands-on learning experiences for youth and adults at their local stream or river. Participants collect aquatic insects, conduct water quality tests and analyze their

findings, with results collected across the watershed and over time. These types of experiential programs are a key part of building water literacy in our communities.

To nurture partnerships under Alberta's Water for Life Strategy, the RDRWA also supports local watershed stewardship groups by linking them with resources, making presentations and inviting them to participate in key events and partnerships. Through our "Watershed Ambassador" award program, we have also presented approximately 150 awards to local stewards over the past five years



INNOVATION AND ACTION

The RDRWA is committed to seeing good ideas get off the ground and implemented. 2015-16 saw the RDRWA experiment with a new approach to bring people together, learn about the watershed and take collective action. In early 2015, the RDRWA launched Project Blue Thumb, Canada's first "social innovation lab" aimed at improving water quality and watershed health (visit www.projectbluethumb.com; Twitter: @BlueThumbLab). Launched in partnership with Alberta Ecotrust and Reos Partners, the lab brings together a diverse (and growing) team of people from across sectors to design and develop solutions to water quality issues, and actively implement them. The lab is building a network of people able to act proactively to protect watershed health, bringing our Blueprint plan to life and rolling out new initiatives in areas of policy, education, engagement and more. A key hypothesis is that taking a social lab approach can enhance both the social and ecological resilience of watershed systems.

In 2015-16, we also partnered with the Alberta Lake Management Society to improve lake monitoring and stewardship in five regional lakes, worked with the Red Deer River Municipal Users' Group to assist with municipal water quality planning, and joined the Piper Creek Restoration Agriculture Project – a project focused on restoring riparian areas and building local food resiliency.



CONNECTING TO OUR COMMUNITIES

We frequently host events aimed at engaging the heads, hands and hearts of our community members. We've hosted scientific panels, guided hikes, public forums, lakeside quizzes, breakfasts and more – everything we can to engage a diverse audience across different parts of our watershed. The real value of these events is in the diversity, knowledge and passion of the people participating, and in connecting our community members around a shared interest in water. A big thank you goes out to our members, supporters and funders who have made these events and programs possible! In 2015-16, the RDRWA also worked on a new communications plan as we work to leverage our social media reach (>2,500 Twitter followers) to engage different demographics around our important vision.



South East Alberta Watershed Alliance



There have been a lot of organizational changes at the South East Alberta Watershed Alliance (SEAWA) in the past few years, but one thing has remained constant: SEAWA is strongly committed to providing scientifically-based and regionally relevant advice to the Government of Alberta on watershed management planning.



SEAWA members testing the water.

Email: info@seawa.ca

Phone: (403) 488-8110

Website: www.seawa.ca

There are limits to Alberta's water supply, and it can be argued that nowhere is this felt more acutely than in the semi-arid south-east corner of the province. Downstream from the intensely used Oldman River and the cities of Lethbridge and Calgary, the SEAWA watershed's largely rural population engages in irrigated agriculture in a drought-prone region. Even under less challenging conditions, watershed management is complex and requires the coordinated efforts of key stakeholders as well as advice from relevant fields of expertise. In this region, SEAWA's role of engaging stakeholders that use or impact local water resources is critical in ensuring that the South Saskatchewan River Basin is managed within its physical limitations. For the past eight years, SEAWA has convened partners from a broad range of sectors to address activities that affect water supply, water use and water quality. By facilitating discussions within a locally committed network, SEAWA helps stakeholders find local solutions to watershed issues and helps pave the way for those with technical skills and resources to implement specific watershed stewardship actions.

In addition to providing a forum for water and land managers, SEAWA has played a more direct role by conducting education and outreach programs to promote awareness of land and water issues within the watershed. Alone, or in collaboration with others, SEAWA has conducted shoreline clean-ups, storm drain painting (Yellow Fish Road), Riverwatch raft trips, agricultural field trips, urban riparian tours, education forums, conferences, biodiversity initiatives, outdoor water conservation presentations and Prairie Appreciation Days. Many of these activities serve as informal means to share local and learned knowledge, discuss local solutions to local issues and encourage stewardship for a healthy watershed.



SEAWA members learning about urban riparian areas.

In 2016, SEAWA began the process of defining what sustainable use of the watershed truly means to the people of southeastern Alberta. Managing water is challenging because water serves many purposes. It is required for economic development, it is fundamental for the functioning and preservation of the environment, and it enhances the way we live by providing social and recreational opportunities. A SEAWA Board member clearly defined the challenge of sustainable use:

“I have no doubt that someone fishing, an irrigator, someone tubing down the river on a sunny afternoon, or the City [of Medicine Hat] power plant all have completely different outlooks on the sustainable use of the South Saskatchewan River Basin.”

SEAWA believes that Albertans have a shared responsibility to ensure that both land and water are used sustainably in the watershed and that it is important to have all activities discussed and debated.

SEAWA’s key stakeholders include, by population size, the City of Medicine Hat and the Town of Redcliff; and by land area, Cypress County, County of Forty Mile, County of Warner, and the Saint Mary River Irrigation District. This year, SEAWA is focused on strengthening key stakeholder engagement, developing partnerships and sharing watershed knowledge. An urban sustainability education forum planned for November 2016 will start the ball rolling. In the day-long event, local stakeholders and provincial experts will come together to discuss issues that range from green spaces to urban resiliency and preparedness for extreme events. SEAWA anticipates that other locally important urban issues will be discussed as well, including development on floodplains, the creation of berms in riparian areas, the effects of impermeable surfaces and stormwater runoff on the health of the river, and the leaching of contaminants into groundwater. The next educational forum will focus on agricultural watershed stewardship.

