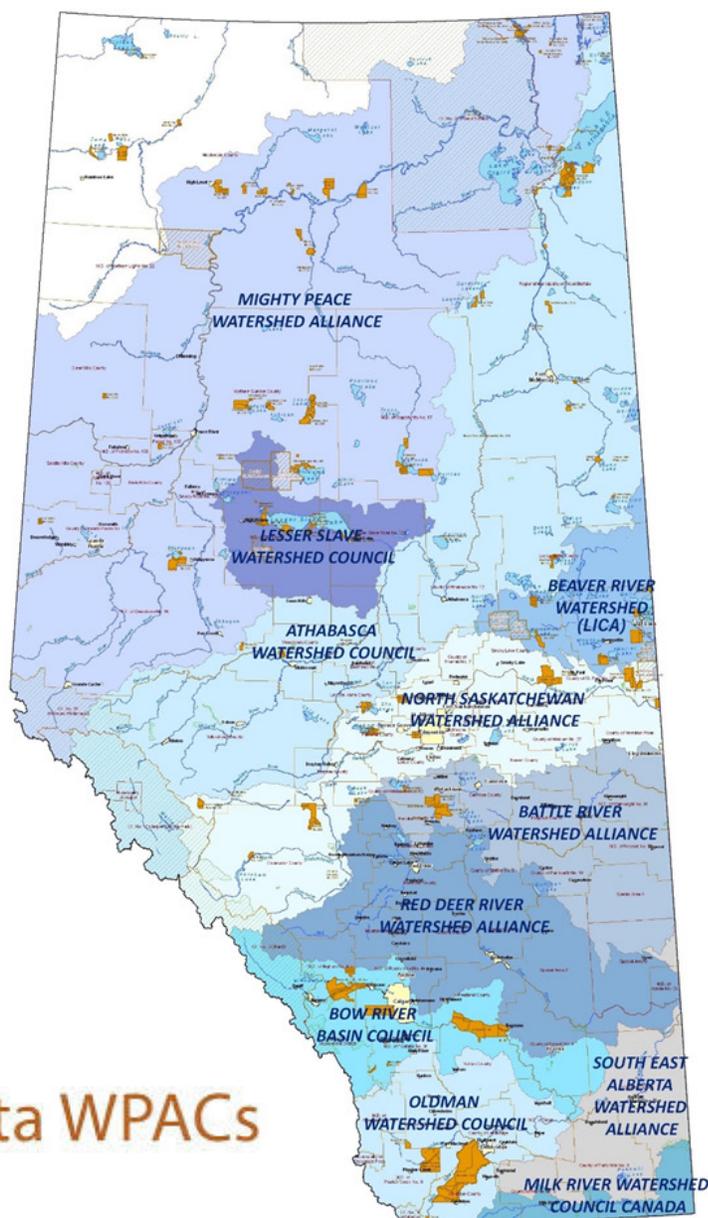


Watershed Planning and Advisory Councils

Volume 2

2018-19
Compendium

Achievements



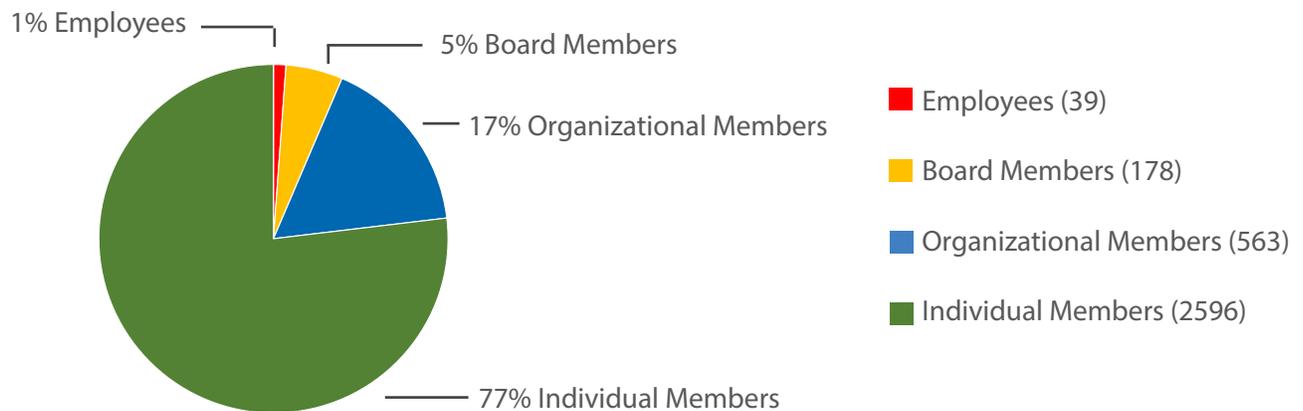
Alberta WPACs

Watershed Planning and Advisory Councils 2018 - 19 Summary - Participation and Funding -

People and financial resources are the fuel that propels WPACs forward. Both are necessary to ensure success.

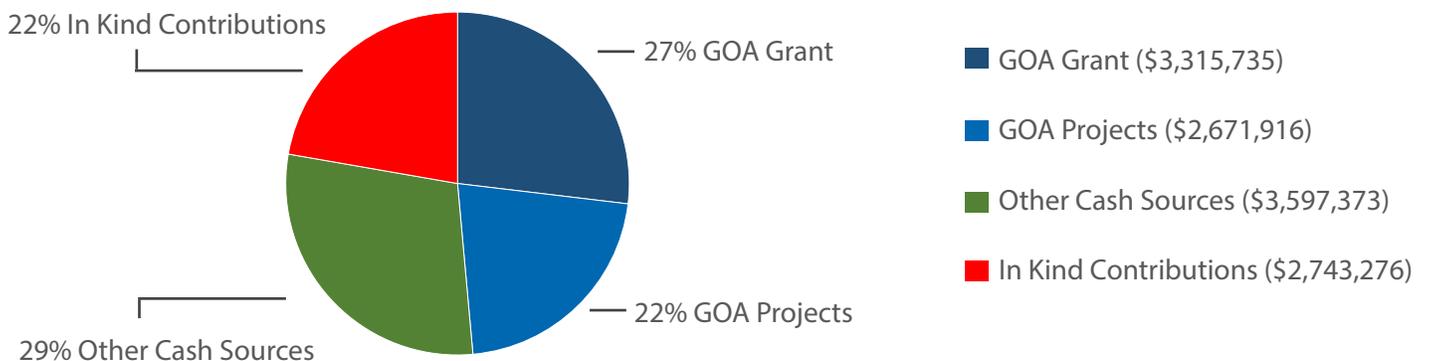
Participation

- Alberta WPACs continue to represent a well-distributed network of over 3000 highly capable and engaged experts.
- This network is managed by WPAC staffers who efficiently achieve credible results at a volunteer:staff ratio of about 80:1.



Funding

- 51% of the total investment (other cash & in-kind) is in addition to Government of Alberta funds. Over half of this amount is cash.
- The initial core GOA (grants) investment of \$3.3M foundationally creates the opportunity to generate \$9.6M in resources to support Watershed Management.



Athabasca Watershed Council



2018 has been a breakthrough year for the Athabasca Watershed Council (AWC). From expanding our staff and broadening our fundraising and outreach, to nearing the completion of the first draft of the Integrated Watershed Management Plan (IWMP), it has been a productive and exciting time.

We have several new staff. First of all, a new administrator: in May of last year, Janet Pomeroy (CMA, CPA, CAE), was hired as Executive Director. With her accounting training and non-profit experience, she has helped organize AWC's financial affairs and facilitate grant applications. We also have a Communications Specialist, Lisa Allan, who has created a communications strategy to reach as many stakeholders and Indigenous partners as possible. We hired an Administrative Coordinator, Paula Sawatzky to help with the details in the office and we await the return of our Outreach Coordinator, Marie Bay Breiner, who is on maternity leave.

The Board has spent time and energy on strategic planning and a bylaws review. We also saw the addition of a new Board member in the Mining/Utilities seat and hope to fill the remaining seats in the upcoming year (one for Indigenous and one for Agriculture). We have also set a goal of identifying alternates for all Board seats.

The AWC hosted a Municipal Forum in November, which was well-attended and well-received. It brought together representatives from many watershed municipalities for a day of learning and networking. Presentations from Alberta Environment

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and Parks limnologist Laura Redmond, Sarah Skinner of the Battle River Watershed Alliance, and consultant Petra Rowell informed the group on various water-related subjects. We hope to continue such efforts through similar engagement forums with our various stakeholders and Indigenous partners.

Also, in November, we participated in the Town of Athabasca's Moonlight Madness kick off to the holiday season. We hosted a photo exhibit in the historical Train Station (AWC offices are there, too) highlighting photography from the watershed. It was a great opportunity to meet more folks in Athabasca watershed and remind them how amazing this watershed is!

We have made multiple presentations to our various watershed municipal councils. We recognize that municipalities are key partners in watershed planning and these presentations help increase understanding and awareness of opportunities to collaborate. One project that has arisen from our municipal outreach is our work with the Barrhead Regional Water Commission on locating non-point sources of pollution on the Paddle River.



Director Dr. Robert Holmberg showing some photography at our Moonlight Madness Open House & Photo Exhibit, November 30, 2018.



Executive Director Janet Pomeroy presenting to the Athabasca Farm Women's Conference, February 7, 2019.

We presented to the Athabasca and region Farm Women's Conference in February. With over 150 farm women in attendance, this made for a great start to our work with Agricultural stakeholders. Many hadn't heard of the AWC but were glad to learn more, as water is key to a successful agricultural industry.

Our fundraising efforts have started to show results - in fact, we set a new record! Several municipalities have generously committed to financial support of the AWC. We have also learned that the AWC has been granted charitable status, which will help expand our fundraising capabilities.

We have been successful in our grant application to the Watershed Resiliency and Restoration Program. We will be conducting a GIS survey of the riparian intactness of the Pembina sub-watershed. We will then use the resulting information to work with landowners along the waterbodies in the sub-watershed to restore or preserve their riparian areas to help protect from flooding and drought. The secondary benefits of this project are improved water quality and species habitat.

The biggest project we have worked on this year is compiling the information needed to prepare the first draft of our Integrated Watershed Management Plan. The Technical Committee worked closely with consultant Petra Rowell to build a plan that identifies the goals and values of people living, working and recreating in the Athabasca Watershed and the actions we can take to help ensure the *Water for Life* goals are met. Our summer student Sarah MacDonald is now putting the final touches on the plan and creating an outreach strategy to bring the IWMP to the stakeholders and Indigenous partners in the watershed.

2019 is the Athabasca Watershed Council's 10th anniversary! We will be hosting a celebration gala on November 23rd in Athabasca. Not only will this be a look back at 10 years of watershed work but it will also launch AWC into its next 10 years of critical work.

Battle River Watershed Alliance



Operating out of Camrose, the Battle River Watershed Alliance (BRWA) is the WPAC for the Battle River and Sounding Creek watersheds. Our new emblem (above) was commissioned to celebrate our 10th year as a WPAC and highlights the social and ecological landscape of our watershed.

Watershed Management Planning: A Plan in Action

The background research reports for the "habitat conservation and management" and "point source pollution management" components are currently underway. Once this background research is complete, the BRWA will work with residents, municipalities, the Government of Alberta and other stakeholders to develop recommendations (policy advice and implementation guidelines) for how we can collectively manage point source pollution and wildlife habitat across our watersheds.

The BRWA's Water Management Plan (WMP) process is conducted in partnership with local stakeholders, including businesses, landowners, governments and researchers. We gratefully acknowledge the funding from the Government of Alberta (Environment and Parks) that supports this ongoing work.

2019 Battle River Biodiversity Forum

For World Water Day 2019, BRWA hosted a Battle

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River Biodiversity Forum to highlight biodiversity, citizen science in our watershed, and watershed residents' participation in watershed management discussions.

Speakers from BRWA, Alberta Lake Management Society, Alberta Biodiversity Monitoring Institute, Cows and Fish (Alberta Riparian Habitat Management Society), and Lakeland College shared insights into watershed health through the lens of the diversity of life found across the region. They also provided information on a number of regional initiatives that involve residents ("citizen scientists") to collect information on everything from aquatic plants, aquatic invertebrates and invasive species, to water quality, reptiles and amphibians.

It was a great day spent expanding our view of how the health of our watershed affects not just our own health, but the health of all life forms with which we share this space.

Municipal Watershed Forums

Municipal partnerships are crucial to the work of land and water management in our watersheds.

The BRWA hosted two Municipal Watershed forums to connect with municipal staff and councillors from across the region. We were able to share an update on the BRWA's work, learn more about current municipal initiatives, and have conversations about our collective priorities for watershed education, stewardship and management.

Areas of watershed management that were identified as priorities by municipal representatives at the forums included: protecting water quality for recreation, drinking water, and other uses; maintaining good quality agricultural land; improving the health of shorelines, streambanks, and wetlands;



2018 Municipal Water Forum in Wetaskiwin.

working with landowners to implement restoration projects; ensuring access to adequate water supplies; preventing the spread of invasive species; managing stormwater and wastewater; building resilience to extreme weather events such as floods and droughts; and supporting watershed education programs.

ECHO Network

BRWA continues to be part of a cross-Canada research project looking at the connections between the health of people, communities and the environment. This Environment, Community, Health Observatory (ECHO) Network works with universities and organizations from across Canada and Oceania. The five-year project will help us expand our understanding of the social, economic and health aspects of watershed sustainability.

Education and Outreach

BRWA is committed to engaging a wide range of audiences concerning watershed awareness, attitudes and actions. With important financial help from industry and government, the BRWA continues to design and deliver a variety of programs and interactive events. One of our education programs designed and delivered by BRWA staff is X-Stream Science. Developed in Battle River and funded largely by Enbridge Pipelines, X-Stream Science is an educational program that gives students a hands-on learning experience about their local stream and the greater watershed. Students use scientific protocols to collect benthic invertebrates (water bugs) and conduct water quality tests, and then analyze their findings.

Stewardship

Supporting local stewards and their actions is another way that the BRWA works to fulfill the *Water for Life Strategy's* goals.

OutsTanding In Stewardship (OTIS) Award

One way that the BRWA supports stewardship is by recognizing youth, businesses, organizations and individuals who are protecting or restoring our watershed. Every year we present four OTIS awards to those who have proven to be OutsTanding In Stewardship.



Nathalie Olson talking with XStream Science participants.

Bow River Basin Council



Opportunities to review the implementation of inclusive and collaborative water management plans do not come along frequently. Before such a review can take place, adequate time must pass to allow for the plan's recommendations to be carried out, and for the collection and evaluation of relevant data. In 2017, the BRBC identified the need and opportunity to review the implementation of the 2006 approved South Saskatchewan River Basin Water Management Plan (SSRB WMP). This review was both timely and necessary as new pressures and interests in the basin are emerging. Moreover, the SSRB WMP itself included a recommendation for such a review.

The BRBC initiated and fully funded the project. The BRBC's membership, partners and SSRB WPACs actively participated in the project, beginning with a workshop to determine which key aspects the review would cover. Each SSRB WPAC established a Basin Advisory Council (BAC) and assessed the plan's implementation through the lens of their watershed's unique circumstances.

Each BAC focused their discussions on specific recommendations in the SSRB WMP:

- the limit on water allocation from the Bow, Oldman and South Saskatchewan River sub-basins;
- future water allocation limit in the Red Deer River sub-basin;
- recommended Water Conservation Objectives (WCOs);

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- establishment of an Interbasin Water Coordinating Committee (IWCC);
- use of water allocation transfers, water conservation holdbacks, and matters and factors that must be considered when making decisions in the newly-created water market; and
- water management strategies.

A considerable task undertaken was to collect data (thank you Alberta Environment and Parks) and prepare a summary package that provided BAC members with graphs and tables on trends in water use, flows and other key metrics. This summary package (prepared by WaterSMART Solutions) addressed many of the questions posed by the BACs and helped facilitate their discussions.

The BACs met several times (individually and in plenary) and generated sub-basin reports that identified their key findings. A wrap-up workshop was then held to discuss these findings. Based on these findings and workshop feedback, the BRBC prepared a final report that identified two emerging themes along with corresponding challenges and opportunities. The report and appendices are available on the BRBC website.

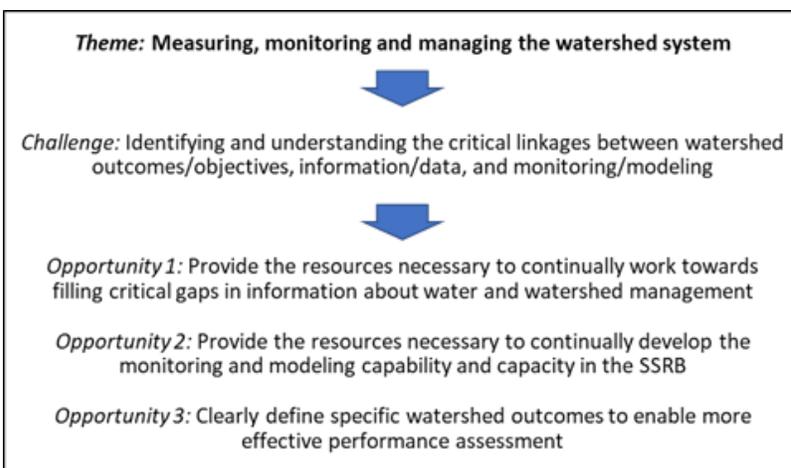
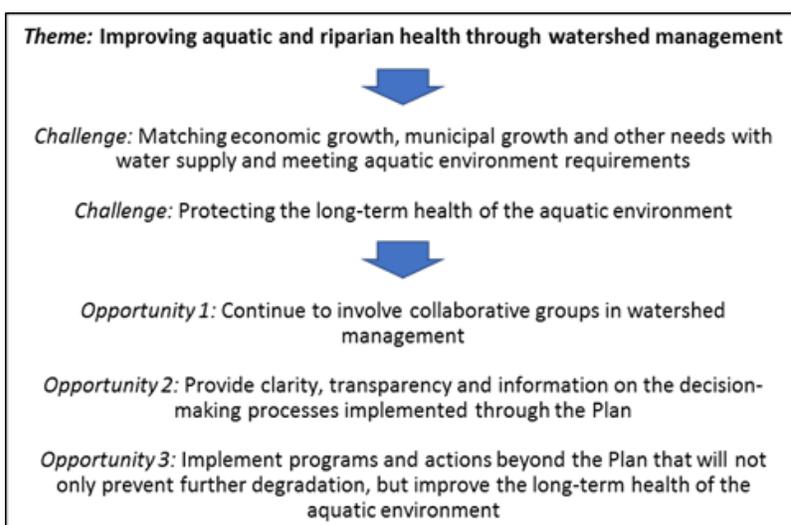
Key findings include:

- Water Conservation Objectives (WCOs), although worthwhile, do not contribute a large portion of water held in the river compared to conservation efforts from large license holders (in particular, irrigation districts).
- The plan is working as expected in the main stems of river systems, but in smaller tributaries there needs to be further discussion.
- More communication is needed between stakeholders and the Government of Alberta.
- Many water strategies have been undertaken with WPAC involvement.

The next steps (outlined in the report) are already partially underway, with discussions planned this summer (2019) for revitalizing the Inter-Basin Water Coordinating Committee. Work is underway to organize a workshop with Alberta Environment and Parks (Approvals) and interested SSRB WPAC members to review a potential case study of a water transfer process from start to finish, which will help increase overall understanding of the transfer process. It is also anticipated that future watershed planning will continue to involve collaborative groups like WPACs.

This review project resulted in a comprehensive understanding of the successes achieved by the SSRB WMP's implementation. Importantly, it also highlighted that fact that stakeholders involved in Alberta's water management regime continue to build relationships and capacity for future initiatives.

SSRB WMP Review Project: Themes, Challenges and Opportunities



LICA - Environmental Stewards



Lakeland Industry and Community Association (LICA) – Environmental Stewards is an Airshed Zone, Synergy Group and Watershed Planning and Advisory Council (WPAC) for the Beaver River watershed. As a non-profit association, LICA strives to develop an ecologically healthy and sustainable environment by connecting people to information and resources to build the region’s capacity for environmental stewardship. LICA’s presence in the communities of the Lakeland region has grown over the years and we are able to make a difference through community engagement, meaningful partnerships, scientific environmental study, education and support from members of our community. Included below are highlights of some of LICA’s programs and initiatives as a WPAC.

CONVENE & COLLABORATE

Jessie Lake Restoration Project

In partnership with the Town of Bonnyville, LICA planted 5,200 seedlings along the riparian area of Jessie Lake through funding from the Watershed Resiliency and Restoration Program (WRRP). In addition to stabilizing the shoreline, riparian areas also trap sediments, maintain the banks of the lake, help filter and buffer the water, and maintain biodiversity. One of the goals for this restoration project is to improve the water quality of Jessie Lake. LICA and the Town of Bonnyville are working together to fix long-term issues with long-term solutions by completing the riparian restoration of woody vegetation.

The installation of informational signs around Jessie Lake was another important step in the

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restoration project. The Town of Bonnyville installed our watershed informational maps around Jessie Lake through in-kind support. Walking trail users can now find valuable information around the lake and at the observational towers.

EDUCATE & INFORM

Stream of Dreams

Stream of Dreams is an eco-education program focusing on water, watersheds and streams, creating a lasting community art legacy to beautify and inspire the whole community. Every student and staff member at Duclos Elementary School in Bonnyville took part in a presentation to learn about their local streams and watershed to help the whole community understand how we are all connected to fish habitat and clean water. With new knowledge about the importance of their actions in relation to the health of the watershed, students painted their Dream Fish - which were mounted on the school fence to create a flowing mural. This mural is not only a piece of art but is also a reminder to the community to do their part in the protection of our watershed. LICA is very excited to bring Stream of Dreams to the LICA region and we hope to one day deliver this program to all the schools in the area.



Painting Dream Fish with the Stream of Dreams program.

Vermicomposting

In 2018 LICA introduced Vermicomposting 101 workshops in our region. Vermicomposting – composting with worms – keeps fruit and vegetable waste from our landfills and turns it into natural fertilizer. The workshop explores the benefits of vermicomposting and how to care for red wiggler worms. Participants build their own vermicompost bin, which includes a colony of red wiggler worms. LICA has delivered this workshop four times and it grows in popularity each time. It is great to see so much interest in environmental stewardship in our region.

Continuing to Educate & Inform

Established programs such as X-Stream Science and curriculum-aligned classroom presentations continue to be available to schools and youth groups within our region. LICA continues to grow its newest program, Little Green Thumbs, in hopes of leaving a lasting impact of water stewardship on our young participants. We provide stewardship-related citizen science, hands-on workshops, and events for the public to address environmental concerns and promote sustainable living. Over the 2018/19 year, LICA reached over 4,700 people through its Educate & Inform Programming.

INFLUENCE & IMPROVE

LakeWatch

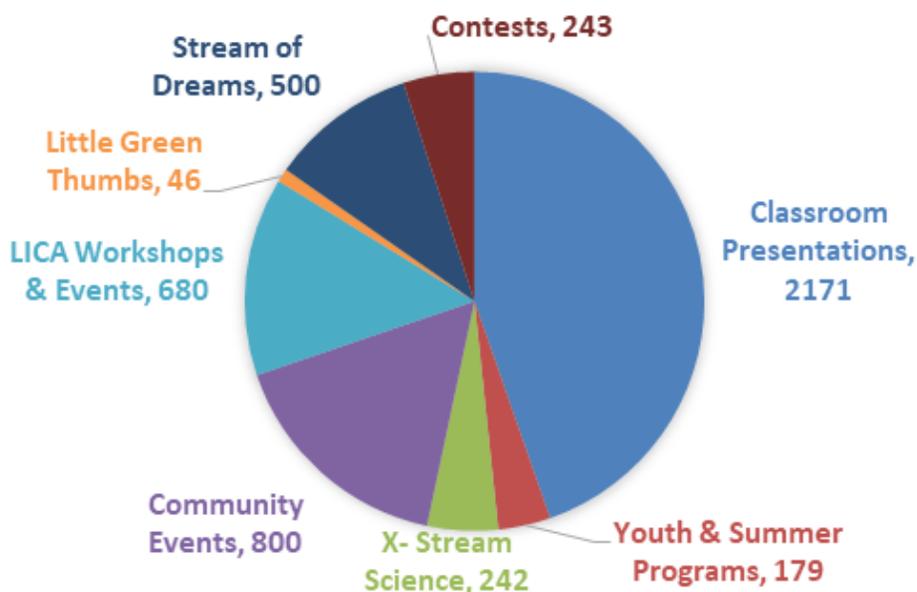
LICA has funded the sampling of 10 lakes within the Lakeland region through the Alberta Lake Management Society (ALMS) for the past 11 years. The water samples identify the chemical, physical and biological properties of each lake. This is an amazing program because it collects reliable scientific data, builds strong partnerships and brings great volunteers to our organization. To find a full report of the ALMS sampling results, visit their website at www.alms.ca.

Citizen Science

As an active watershed stewardship group, the Muriel Lake Basin Management Society (MLBMS) seeks to address Muriel Lake's declining water levels, poor water quality and diminishing fish spawning habitat. Along with increasing community awareness, MLBMS has recently contributed citizen science by collecting data on winter dissolved oxygen levels. Through the use of LICA's equipment, in-kind support and expertise, the MLBMS was able to fill a knowledge gap with the aim of improving their lake.

EDUCATE & INFORM 2018-19

NUMBER OF PEOPLE REACHED



Lesser Slave Watershed Council



Lesser Slave Watershed Council (LSWC) is in its 12th year of operation and has two full-time staff at our office in High Prairie. Our Board of Directors is comprised of 14 individuals from local, provincial, and indigenous governments, industry, tourism, agriculture, non-governmental organizations (NGOs) and members at large.

Watershed Planning

The LSWC completed the Integrated Watershed Management Plan (IWMP) for the Lesser Slave Watershed after 3 years of work with stakeholders, the project steering committee, the technical advisory committee and partners at Alberta Environment and Parks. The IWMP is a guidance document and includes recommendations that, when implemented by partners in the watershed, will lead to the long-term health and sustainability of the Lesser Slave Lake watershed. The LSWC has moved into the implementation phase of planning, establishing an Implementation Committee comprised of representatives from local and provincial governments, Indigenous partners, the forest sector, the oil and gas sector, and NGO's who work within our watershed. Some of the implementation projects underway include: tributary water quality monitoring, mapping priority wetlands and sharing the maps with stakeholders, stream crossing remediation in the Upper Swan watershed, and providing flood hazard maps to our stakeholders

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and communities. There are also many education and outreach efforts that will raise awareness about invasive species, landuse impacts on water, water quality, and potential impacts of climate change on our water resources.

Monitoring and Reporting

The LSWC completed its second year of the tributary monitoring program. Our watershed has limited and sporadic water quality data from past efforts, and there is no government-led monitoring anywhere in the Lesser Slave watershed. Therefore, with financial support from the forest sector and other partners, the LSWC has taken on tributary monitoring on 15 sites on five major tributaries of



LSWC Executive Director Meghan Payne measuring water quality parameters.

Lesser Slave Lake. This monitoring program involves collecting data that can be used to develop water quality objectives for the main tributaries of Lesser Slave Lake and inform management decisions on Crown and municipal lands. The LSWC has made data sets publicly available by posting annual water quality summaries at www.lswc.ca, and by partnering with Mackenzie Data Stream. The data can be viewed and downloaded at <https://mackenziedatastream.ca/#/>. We have partnered with Swan River First Nation to collect additional water quality parameters on the Swan River sites and we are working with Big Lakes County to conduct fecal source tracking on sites along the West Prairie River. This program has a cost of about \$25,000 a year and the LSWC aims to secure support to make it a long-term program.

Education and Outreach

Throughout 2018/19, the LSWC engaged with people of all ages across the watershed. In April 2018, the Lesser Slave Lake 101 event was held and attended by 60 people who were keen to learn about water quality, stewardship programs and fish health. LSWC attended trade shows and local events to promote the organization and share the popular Lesser Slave Lake Stewardship Handbook. Our staff delivered 32 classroom presentations and field trips for school kids in the watershed, participated in Swan River First Nation's Culture camp and engaged families in discussions about the watershed. The LSWC and local watershed resiliency partners hosted a watering system and beaver management field tour that was attended by 22 local producers interested in watershed stewardship. In February 2019 the 2nd annual Kids Can Catch ice fishing event in Jousard saw over 100 anglers participate, despite the cold temperatures. Our social media accounts continue to grow each year and we now have 470 facebook "likes" and 811 Twitter followers. Social media has proven to be a great way to share watershed events and reach a broad audience.

Watershed Resiliency Projects

The LSWC has received Watershed Resiliency and Restoration Program grant support, and financial support from Big Lakes County Agricultural Service Board, to deliver on-the-ground watershed



Kids can Catch Feb 2019 - enjoying a hot dog and ice fishing on Lesser Slave Lake.

enhancement projects with landowners. The overall goal is to improve watershed resiliency to floods and droughts by creating healthy wetlands and riparian areas. In 2018/19, we wrapped up five different projects with local landowners and the Town of High Prairie. The projects involved working with landowners to implement best management practices such as off-stream watering, riparian fencing, livestock crossings, and improving the health of riparian areas by reducing bare ground cover and erosion potential. Cows and Fish was involved in each of our projects and conducted a pre-project riparian health assessment to establish a benchmark to help measure progress once projects are implemented. Learn more at www.lswc.ca.



Young citizen scientists measuring water quality at Lesser Slave Lake.

Mighty Peace Watershed Alliance



Watershed Planning and Advisory Councils are of great value to Albertans and are key to building and maintaining strong relationships with engaged stakeholders. It is a huge undertaking to mobilize stakeholders to work together to identify water quality and quantity issues, implement beneficial management practices, and consider how activities on the landscape impact the watershed. WPACs are a proven success at meeting these challenges and provide opportunities for stakeholders to participate in policy development, planning and decision making throughout the province.

As the official WPAC for the Peace and Slave River basins, the Mighty Peace Watershed Alliance (MPWA) is a multi-sector, multi-partner, not-for-profit society committed to planning for an ecologically healthy and functioning watershed while ensuring environmental, economic and social sustainability. The MPWA has operated for eight years and we are pleased with our achievements and look forward to our future work.



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The MPWA works with Indigenous communities, municipalities, industries and other organizations to find practical solutions for water issues. Specifically, we work through agreed processes to identify common areas of interest and then engage stakeholders to find workable actions, beneficial management practices, and appropriate policies and guidelines. The MPWA uses and shares sound science, knowledge and information through a number of activities.

Activities

Highlights for 2018-2019 include:

1. The acceptance (by consensus) of the MPWA IWMP (Integrated Watershed Management Plan) was a key milestone this past year. The plan presents recommendations regarding the four main issues of concern, as identified in the State of the Watershed (SOW) March 2015: Water Quality, Availability and Consumptive Use; Wetlands and Wetlands Loss; Non-Saline Groundwater; and Peace River Flow Regime.

In the past year, the MPWA has focused on the recommendations of this plan. The plan represents significant work and input from various stakeholders, decision makers and knowledge holders who collaborated to bring forward recommendations on water quality and quantity, and beneficial management practices.

2. Collaborative and Partnership Projects - The MPWA continues to take the lead on several projects with strong support from partner teams that provide knowledge, expertise and resources. Projects include:
 - The Redwillow Restoration Plan and the completion of the fish passage at the Beaverlodge weir;

- The Source Water Protection Plan for the Grimshaw Gravels Aquifer Management Advisory Association and the initiation of a Wapiti River Source Water Protection Plan (these projects are moving forward with municipal, industry, Indigenous and non-government organization partners); and
- Improved Streambank Stabilization and Livestock Crossing projects that look at reducing ecological impacts and preventing erosion (these projects are funded through the Watershed Resiliency and Restoration Program).

3. The Wapiti River Water Management Plan, which involves a Steering Committee, Technical Committee and Engagement Committee. This Water Management Plan is led by Alberta Environment and Parks (AEP) and utilizes a strong Steering Committee to achieve its outcomes. The Technical Committee completed its final report, and AEP and the Steering Committee have formalized a draft plan. Once the engagement component is completed, the Water Management Plan will be finalized.

4. Increased Education and Water Literacy opportunities: MPWA hosted a Municipal Wetlands Learning Day, presented at numerous school and public events, held a Soil Series Workshop and Tour (streambank restoration work), held Reclamation and Remediation seminars, and participated in the LakeKeepers Community Monitoring project.



5. Completed a review of the Strategic Plan in terms of organizations' goals and achieving the recommendations in the IWMP. The work of MPWA will focus on addressing many of the recommendations of the IWMP – including further collaborations, a number of watershed/ water management planning opportunities, and a multitude of education events that help increase water literacy throughout the watershed.

6. A significant highlight in 2018 was hosting the Alberta WPAC Summit in Peace River. This event was completely funded by local sponsors and registration fees. The 3-day summit included speakers from Alberta, British Columbia, Saskatchewan, and the Northwest Territories. The summit theme was "Source Water to Drinking Water".

The work of the MPWA involves effective partnerships and dialogue between interested and affected persons and decision makers working together to address water quality and quantity issues.

MPWA Board and Staff

The Board of Directors consists of individuals with wide-ranging experiences, insights and knowledge. These committed directors provide a definite benefit to all of the people within the Peace River and Slave River basins, which cover approximately 30 per cent of the province. Seats at the table are filled by members from government, Indigenous communities, non-governmental organizations and industry.

The MPWA's staff complement continues to consist of three full-time personnel who collaboratively lead and support a number of initiatives and general organizational duties.

The Board and staff are 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



The Milk River watershed is a small, semi-arid and transboundary watershed. Alberta shares the Milk River watershed with the province of Saskatchewan and the State of Montana, USA. Climate in the Milk River watershed is unique in comparison to the rest of Alberta. The semi-arid environment has influenced not only the soils, vegetation and wildlife that are found there, but it has also shaped the population, industry and economic growth in the region. Located in the most southern part of Alberta, the Milk River is the only watershed in Alberta that drains south to the Gulf of Mexico.

Water shortages are common in the Milk River watershed. As the problem of water scarcity continues to grow, proper water and watershed management is critical. The Milk River Watershed Council Canada (MRWCC) is committed to working with government and non-government agencies, other non-profit organizations, industry and Milk River watershed residents to effectively manage watershed resources. In addition to core operations, the Council is also undertaking larger projects that complement implementation of the Milk River Integrated Watershed Management Plan and promote the Council's management strategies:

- Implementing Phase 2 of a Watershed Resiliency and Restoration Program (WRRP) project
- The MRWCC Long-term Surface Water Quality Monitoring Program

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- Source Water Protection Project
- Transboundary Grasslands Partnership (with Montana and Saskatchewan) and Watershed Film Project
- Past Water Supply Investigations in the Milk River Basin
- Xeriscaping project

The MRWCC consists of 18 directors and 3 staff members. The Council has established teams to help fulfill the goals of the MRWCC. Over the past year, the following teams have been busy working on several initiatives.

Community Awareness & Involvement Team

This team ensures that community members are aware and involved in the activities of the MRWCC. The team:

- Presented a Youth Engagement Program to local schools which included:
 - Participating in the Nutrien-sponsored Caring for Our Watershed Program.
 - Partnered with Alberta Parks and local schools to develop and implement a Youth Engagement Program to deliver watershed education materials within local schools and parks.
 - Conducted school interactive programs such as the Annual Poster Contest.
- Partnered with local rural municipalities, Alberta Conservation Association, and the Government of Alberta to develop and deliver the 11th Annual Southern Alberta Youth Range Days program.
- Hosted community engagement activities:
 - Conducted the Annual Canoe Tour.

- Participated in the Milk River Bonanza Days by bringing awareness of the MRWCC activities to the community.
- Conducted community awards programs: Environmental Stewardship Award and Tree Heritage Award.
- Hosted a Southern WPACs Board Governance Workshop on October 25, 2018, to refresh and train new and returning Board members on their roles.
- Completed a joint xeriscape project with the Town Council by implementing a project on one side of the Town office front lawn.
- Hosted the 3rd Annual Community Appreciation Forum to celebrate the unique aspects of the Milk River watershed and growing community involvement.
- Hosted the 13th Annual General Meeting.
- Completed two Meander newsletters.
- Maintained the MRWCC website and promoted the MRWCC through social media.

Research and Monitoring Team

The Research and Monitoring Team is responsible for collecting information about the watershed and identifying gaps in our current knowledge. This team initiates science and research projects that will further understanding of watershed health.

- Completed 13th year of water quality monitoring on the Milk River, including nine years of monitoring on the eastern tributaries.
- Assisted the Red Creek Watershed Stewardship group by providing program coordination and monitoring assistance in conjunction with the County of Warner.
- Started implementation of Phase 2 of the WRRP project by identifying and completing watershed conservation stewardship projects located along the Milk River.
- Monitored invasive mussels on five Milk River locations (no mussels were observed).
- Held a Science Forum on November 8, 2018. The Forum showcased scientific research relevant to the region (five speakers gave presentations).
- Partnered with Alberta Health Services to produce a four-page summary science note identifying long-term trends and promoting

groundwater sampling and domestic water well maintenance.

- Hosted the Working Well Workshop in March, 2019, in conjunction with SEAWA and the County of Warner.

Water Supply and Management Team

- Participated in the Alberta-Montana Water Management Initiative, a joint cross-border Council formed to address water sharing and management for the Milk River.
- Addressed issues of water supply including water shortages, predicting future supply through scenarios, and working with our Montana neighbours to investigate international water sharing management strategies.
- Produced a report, Past Water Supply Investigations in the Milk River Basin. This report also provided supporting studies and helped establish a common understanding of the work completed among water managers and water users. The document will guide future planning and decision making to improve water security and drought resilience in the Milk River watershed.

Transboundary Watershed Team

This team is responsible for developing an action plan that will identify knowledge gaps and improve information sharing with neighbouring jurisdictions for the better management of common watershed resources.

- Hosted the 4th Annual Transboundary Grassland Partnership Workshop in Lethbridge in conjunction with the Prairie Conservation Forum and Montana partners to help foster the relationship among transboundary partners and maintain dialogue.

North Saskatchewan Watershed Alliance



The North Saskatchewan Watershed Alliance (NSWA) is a multi-stakeholder watershed planning partnership registered as a non-profit society since 2000. NSWA is a forum for identifying and addressing issues affecting watershed health in the 57,000 km² North Saskatchewan watershed. In collaboration with our stakeholders, the NSWA work towards its vision:

People working together for a healthy and functioning North Saskatchewan River watershed – today and tomorrow.

The work of the NSWA is guided by its strategic goals, which align with the key responsibilities of WPAC's. The NSWA:

- supports collaborative watershed planning,
- provides leadership in watershed management,
- promotes watershed knowledge sharing, and
- remains a functional and sustainable organization.

The work of the NSWA is also defined by the 2012 Integrated Watershed Management Plan (IWMP), which provides strategic, long-term direction to protect the health of the watershed and achieve the three goals of the *Water for Life Strategy*.

Collaborative Watershed Planning

Collaborative partnerships are central to successful watershed planning for the NSWA. Our strong relationships with government agencies, municipalities, industry, non-governmental organizations (NGOs) and watershed stewardship groups provide us with the ability to align our work with our key stakeholders' watershed issues and projects.

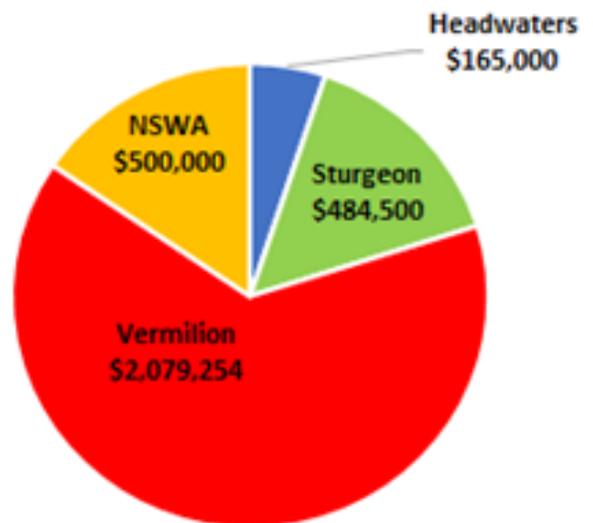
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Our three sub-watershed partnerships, specifically, allow us to study and address local watershed issues with local solutions. These partnerships are with:

- Headwaters Alliance
- Sturgeon River Watershed Alliance
- Vermilion Watershed Alliance

The NSWA provides project management, facilitation and grant support to these municipal partnership initiatives. To date they have received over \$2.7 million worth of grants, and have completed over 15 reports and numerous wetland and riparian restoration projects.

Project Grant Funding



Leadership in Watershed Management

The NSWA reviews and prioritizes watershed management projects to maximize the use of resources. This includes providing advice and support to provincial policy, framework and guideline projects as well as other key stakeholder partnerships such as EPCOR, University of Alberta and NSWA sub-watershed alliances. Examples of these watershed management projects include:

- North Saskatchewan Regional Land Use Plan
- Industrial Heartland Water Quality Framework
- North Saskatchewan River Long Term Water Quality Study (EPCOR/Alberta Environment and Parks/NSWA)
- Groundwater and North Saskatchewan River Interaction Study (University of Alberta/EPCOR/NSWA)
- North Saskatchewan Watershed Integrity Study (Alberta Environment and Parks - Environmental Monitoring and Science Division/NSWA)

NSWA has also recently received \$500,000 in grant funding from the Canadian Agricultural Partnership program to conduct a watershed-wide riparian study. This project is expanding on the innovative riparian assessment work completed in the Modeste, Strawberry and Sturgeon sub-watersheds.

The NSWA Riparian Health Action Plan was a finalist for a 2019 Alberta Emerald Award.

Watershed Knowledge Sharing

The NSWA is a key resource for watershed information on the North Saskatchewan watershed. We align and complement the communication efforts of Alberta Environment and Parks, NGOs and other organizations to reinforce watershed knowledge and stewardship messages (e.g., from the Water Literacy and Respect Our Lakes programs).

Our communications strategy focuses on the sharing of knowledge through the recently updated NSWA website, regular newsletters, educational forums and one-on-one meetings with our key stakeholders.



Functional and Sustainable Organization

The NSWA organization has five staff and is guided by an 18-member, multi-stakeholder Board. The Board meets six times per year and an Annual General Meeting takes place each June to report on NSWA progress.

The operating budget of the NSWA is approximately \$800,000 with major contributions provided by Alberta Environment and Parks, EPCOR and municipal contributions. All our partners provided over \$710,000 worth of in-kind support in 2018-2019.

The NSWA will be celebrating its 20th anniversary in 2020 and looks forward to continuing its significant role in bringing people together to ensure a healthy North Saskatchewan River watershed.



Oldman Watershed Council



Restoration and Education in Our Headwaters

Since 2015, the Oldman Watershed Council (OWC) has offered education and restoration programming that focuses on sustainable land use and restoration in the Oldman watershed. These programs focus on promoting responsible backcountry recreation, restoring streambanks, garbage collection and clean-up, and helping deck bridges in the headwaters. We also work in an advisory capacity for Alberta Environment and Parks by participating on planning and strategy committees.



Staking willows to restore streambanks and reduce erosion at Pasque Creek.

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Watershed Legacy Program Supports On-the-ground Stewardship

Since 2009, OWC has run the Watershed Legacy Program, which provides seed funding to rural partners in southern Alberta. To date, we have funded 62 rural stewardship projects, with project areas including riparian restoration through fencing or trough placement, weed removal through biocontrol insects, mapping high-value habitat, and educational tours for urban and rural residents of the watershed.



Municipal councilors, agricultural producers, public servants and nonprofit staff learn new strategies to address invasive species, fires, streambank erosion, and gravel pit impacts.

Southern Alberta Grazing School for Women Provides Valuable Training

In 2018, OWC was proud to be an organizer of the 16th Annual Southern Alberta Grazing School for Women. This progressive program, held in the Stavely area, supports practical, hands-on training for land managers, and hosted 47 female ranchers for two days of learning and sharing. Range and riparian health assessments and plant identification continue

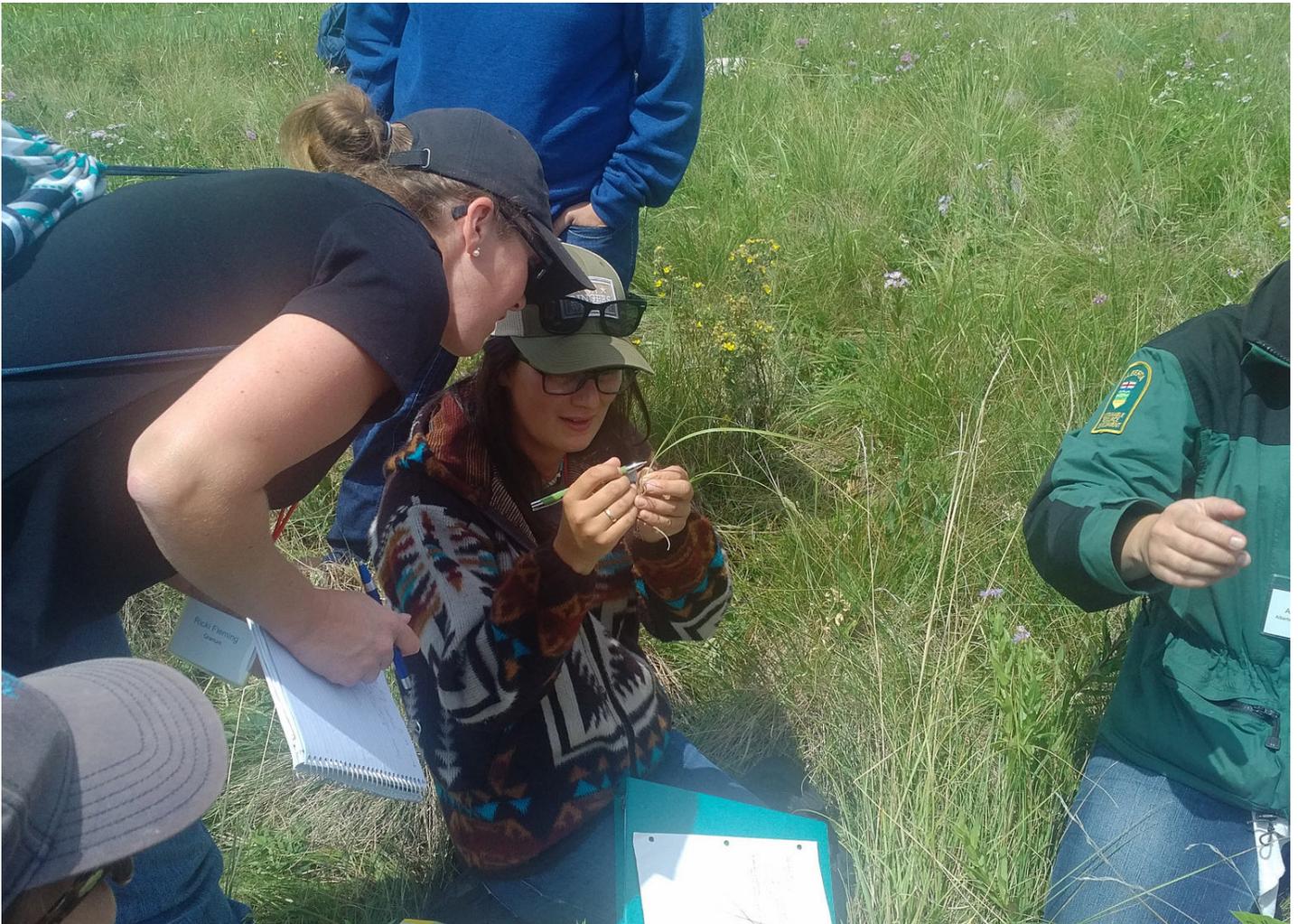
to be the most popular and valuable lessons, which shows how much producers care for the land they depend on for their livelihood.

Invasive Weed Control

OWC staff and volunteers attend many weed pulling events throughout the year to assist our partners who tackle invasive species. In 2018, we attended ten weed pulling events, with partners such as the MD of Ranchland, Castle Crown Wilderness Coalition, Nature Conservancy of Canada, City of Lethbridge, and the Pincher Creek Watershed Group. Our summer staff were proud to win the Bent-Back award and Biggest Wreck award at the 16th Annual Blueweed Blitz, where 160 bags of weeds were collected and removed.

Youth Engagement Creates the Next Generation of Stewards

OWC engaged nearly 900 students over the past year through interactive activities, in-classroom presentations, and field trips. 52 students from the Oldman watershed submitted project proposals to the Caring for Our Watersheds youth contest; one group from Cardston Junior High placed 3rd in the final competition, while another received an honourable mention — way to go!



Learning how to identify plants at the 16th Annual Southern Alberta Grazing School for Women.

Red Deer River Watershed Alliance



The Red Deer River Watershed Alliance is the WPAC for the Red Deer River watershed in central Alberta. Established in 2005, our vision is that the Red Deer River watershed will be healthy, dynamic and sustainable through the efforts of the entire community. Our goals are to provide a forum for information exchange and dialogue, raise awareness of watershed issues, and promote the use of best practices and the integrated management of land and water resources.

We like to think that WPACs are the swiss army knives of watershed protection. We have multiple tools for different aspects of watershed management. Whether it is education, watershed planning, research and analysis, policy advice, or getting our hands dirty planting willow stakes – we like to show up, build partnerships across sectors, and get the job done.

Communications and Community Events

A priority for the RDRWA is modernizing our approach to communications to reach more people across the watershed. After hiring a Communications Manager in 2017, we are pleased to report that more people are reading the monthly e-newsletter, we also have more social media followers and more media coverage of our events.

We hosted three flagship events this year, including a Fall Forum, Spring Forum, and Annual General Meeting. Our forums are a great place to hear the latest updates on science, policy and stewardship, while bringing the community together.

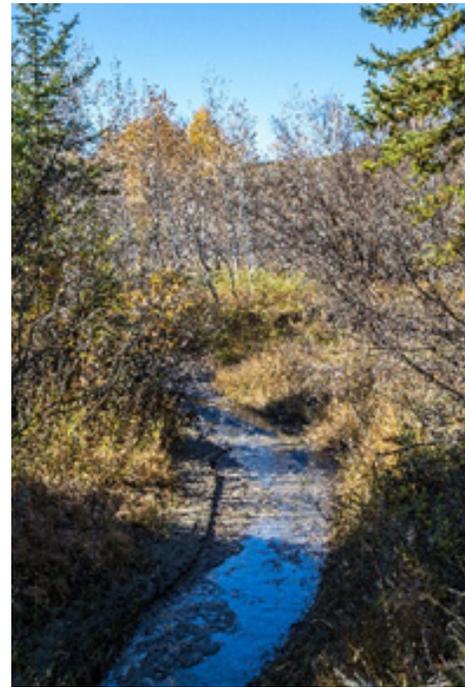
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Planning & Policy

In partnership with three fellow WPACs, we coordinated a multi-sector review of the *Approved Water Management Plan for the South Saskatchewan River Basin*. We made key recommendations to safeguard the water security of the Red Deer River watershed, which is the only sub-basin in the South Saskatchewan River Basin still open to new surface water licenses.

Following the completion of *Blueprint: An Integrated Watershed Management Plan for the Red Deer River Watershed (Phase One: Water Quality)* in 2016, we received official feedback from the *Water For Life Cross Ministry Steering Committee* in 2018. We continue to work with partners to support implementation, and were pleased to see an expansion of the tributary monitoring network in our watershed alongside the adoption of site-specific water quality objectives by the City of Red Deer.



Other highlights include:

- Securing funding for a project to prioritize the conservation and restoration of riparian areas in the Medicine-Blindman sub-watersheds through the Watershed Resiliency and Restoration Program.
- Reviewing, through a watershed lens, the land-use proposal for Bighorn Country.
- Partnering in the Global Water Futures Prairie Water project to ensure that science is translated to meaningful on-the-ground action.

Education and Stewardship

Highlights:

- Supporting the Alberta Lake Management Society with the organization of their two-day lake management conference in Buffalo Lake, marking the end of a three-year partnership which saw the monitoring of 11 lakes in our basin.
- Re-focusing our school program, targeting Grade 5 youth.
- Partnering with the Olds College Land & Water Resources program to inform course design and supervise student projects related to watershed management.
- Partnering with the City of Red Deer to deliver a “Healthy Waters” poster competition.
- Organizing a bike tour to highlight local examples of stewardship efforts and success.
- Through our TD Friends of the Environment Grant,

we partnered with the Battle River Watershed Alliance to deliver X-Stream Science (citizen science) workshops.

Supporting Municipalities

We are currently focused on improving programming for municipalities, based on the recognition that municipalities are major land-use decision makers, and have requested targeted support. We organized a two-day municipal bus tour for municipal elected officials, staff, and MLAs with the goal of showcasing water and land-related topics across the southeastern portion of the watershed, touring wetland restoration sites, grazing and range management projects, irrigation districts, and more. We supported the development of a source water protection toolkit by the Red Deer River Municipal Users Group, presented to municipal councils, and continue to work with municipal staff on restoration and planning.

Moving forward

Key strategic focus areas for the RDRWA in 2018/19 include:

- modernizing communications,
- mapping ecological infrastructure,
- supporting municipalities, and
- enhancing regional water security.

We have numerous projects underway with various partners to drive progress in these areas, ranging from mapping hydrologically significant areas to initiating a “Science & Storytelling” project that will see us engage people across the basin to document real-world land and water stories. We have invested in our capacity to support municipalities, develop GIS, and develop organizational responses to key watershed topics. With an energized multi-sector Board of Directors, four full-time staff, and a broad network of partners, we continue to see immense value in place-based watershed management.

South East Alberta Watershed Alliance



It was a very busy and rewarding year for the South East Alberta Watershed Alliance (SEAWA). A key project was the restoration a total of 7.1 km of riparian areas. This riparian restoration and enhancement work consisted of several individual projects in partnership with eight landowners that were implemented at ten restoration sites. Individual projects included: fencing to manage livestock and pet access to riparian areas, almost 2,500 native shrubs and trees were planted, two off-stream watering systems were installed, a corral on riparian

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area was removed, and a small livestock stream crossing was constructed. In addition, site-specific re-vegetation methods appropriate to the semi-arid climate, wildlife presence, and other relevant factors were developed and implemented. We learned lessons about re-vegetation techniques, working with various people, report-to-funder details, and overall project management.

We are proud of these accomplishments, which were made possible through a one-year contribution agreement under the Recreational Fisheries Conservation Partnerships Program (RFCPP), Fisheries & Oceans Canada, and a 3-year grant from the Watershed Resiliency and Restoration Program (WRRP). RFCPP project funding concluded in March 2019, while WRRP funding for individual projects



Fencing installed in October 2018 and chokecherry planted in November 2018 (on a section of Sauder Reservoir riparian restoration site, County of Forty Mile). SEAWA summer student and an intern taking plant data & marking experimental treatments. Photo taken in May 2018.



continues to next year, ending in March 2020. Project reports and associated educational activities are posted at www.seawa.ca (Projects page.)

Through funding from the WRRP grant, 702 km of riparian areas of streams and lakes/reservoirs were assessed for their conditions and given the ratings of healthy, healthy with problems, and poor. The report is available online at www.seawa.ca (Projects page).

We also conducted applied research in riparian areas. Specifically, we researched control methods of the noxious weed, leafy spurge, and planned an experiment on the control of the invasive Russian olive tree. Water quality of the Seven Persons Creek during the summer 2018 was also studied. Reports of these studies are being prepared.

During the year, we also held educational forums, produced educational materials, organized and participated in community events and initiatives, and promoted awareness about caring for water, watersheds, and ecosystems. These activities are summarized in our 2019-20 Annual Report.

Additionally, we regularly distribute newsletters every other month. The Annual Report and newsletters can be viewed at www.seawa.ca (Resources page) . We are also active on Twitter and Facebook.

SEAWA's vision, mission, goals, and partnership/ collaborative approach - and the overarching *Water for Life Strategy* – align with several of the 17 United Nations Sustainable Development Goals. SEAWA was thus awarded wage subsidies for intern staff through the United Nations Association – Canada Green Corps (UNAC). RFCPP also provided wage subsidies to the summer student and interns.

An operational grant from Alberta Environment & Parks helped SEAWA maintain a reliable administrative set-up and enabled the hiring of competent staff. The Board and committees (Executive, Technical, Communications, and Policy) provided the governance structure, guidance and oversight. These are contributing factors to SEAWA's credibility as a recipient of grants, contributions and donations.



Scene from the Red Deer River watershed. Photo: Red Deer Watershed Alliance.