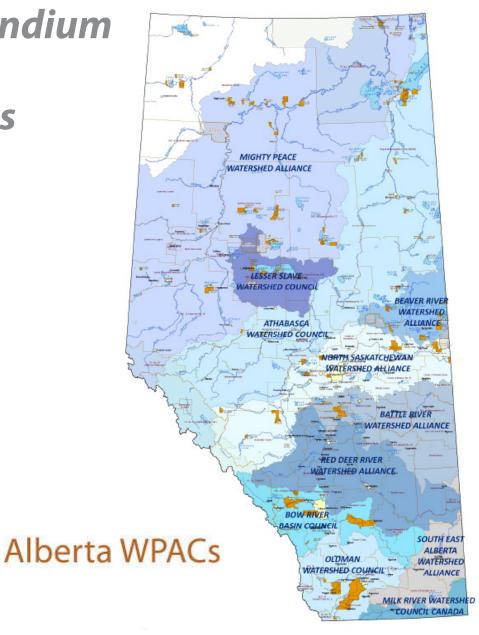
Watershed Planning and Advisory Councils

Volume 1

2017 Compendium

Achievements



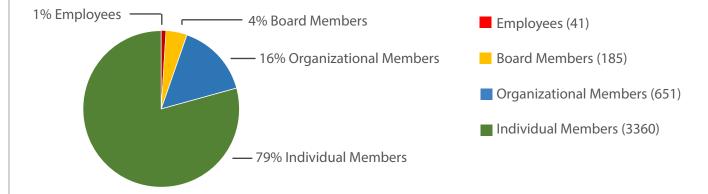


Watershed Planning and Advisory Councils 2016 -17 Summary - Participation and Funding -

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

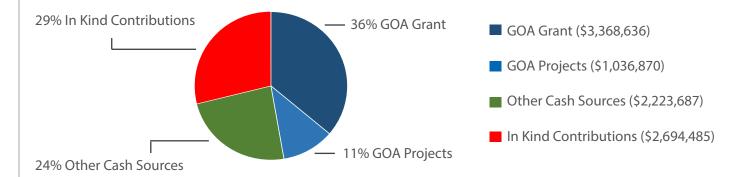
Participation

- It is impressive that through the WPAC organizations, there is a well distributed network of over 4,000 highly capable and engaged experts.
- This network is managed by WPAC staffers who very efficiently achieve commendable results at a volunteer:staff ratio of about 100:1.



Funding

- 53% of the total investment (other cash & in-kind) is in addition to Government of Alberta (GOA) Funds, with over 25% of the total being in-kind.
- The initial core GOA investment of \$3.4M in WPACs is leveraged into at least \$9.3M of value (that is close to a 3X increase).



Athabasca Watershed Council



2017 has been an exciting year for the Athabasca Watershed Council. We've made significant progress, both internally and externally. Here are a few highlights.

We established and filled two new full-time staffing positions. Earlier this year, we developed an Executive Director (ED) position and accepted applicants through an open competition. In June, Jason Ponto (formerly our Administrative Coordinator) accepted the position and began work as our ED. In August, we solicited applications for our newly created Outreach Coordinator position. We are pleased to announce that Marie Bay Breiner has recently started work in that role. She has had an immediately positive impact on our operations.

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Our Board of Directors continues to be a diverse and committed group of individuals who are representative of a broad range of interests across the basin. Of a possible 20 seats, we currently have 16 board members, including two Indigenous people. We look forward to filling the four vacant seats in the new year.

In January, we hosted an open house event in which we invited people to "learn about the Athabasca River's past while we discuss plans for its future." Through a partnership with the Alice B. Donahue Library and Archives in Athabasca, we looked back in time by displaying a collection of archival materials (many of which are well over 100 years old) that depict the Athabasca River's historical uses. By highlighting the condition and uses of the river 100 years ago, we emphasized our current opportunity (and obligation!) to plan for the next 100 years.

In June, we participated in the Athabasca River Voyageur Canoe Brigade. We joined nearly 200



Fifteen voyageur canoes enter the Athabasca River from Brule Lake, west of Hinton.



Over 1000 people packed into a hall in Fort Assiniboine to see Lois Mitchell, Lieutenant Governor of Alberta, address the brigade.

paddlers in 15 voyageur canoes and travelled down the Athabasca River from Jasper to Fort Assiniboine (333 km) over a six-day period. The trip included public events in Jasper, Hinton, Whitecourt and Fort Assiniboine that celebrated the history, culture and ecology of the Athabasca River. It was an amazing opportunity to increase our understanding of the river through first-hand experience and to raise the profile of the AWC in the upper portion of the watershed. We gained almost 60 new members and over 1,000 people learned about our organization and the important work of WPACs.

We have been hard at work preparing a summary of our existing State of the Watershed reports. These reports, which include four phases and an overview of Traditional Ecological Knowledge, span over 600 pages and include an abundance of highly technical information. Our newly developed summary, which is only about 40 pages long, is intended to tell the story of the Athabasca River watershed in an accessible and engaging format. This summary report will be the basis of engagement activity next year and in years to come.

We recently launched a completely reimagined and redesigned website. The site is now much cleaner, brighter, and more visually appealing! It is also more functional than the site it replaced, and prominently features our redesigned logo, which serves as a visual reminder that the Athabasca Watershed Council has entered a new phase in its ongoing development

and stands poised to complete the important work that WPACs are entrusted to undertake. We have also launched new social media profiles to share our information and to better facilitate the flow of information amongst stakeholders and Indigenous peoples.

We have participated in several collaborative projects which will result in the better management of the Athabasca River watershed. We are active participants in Alberta WaterSMART's ongoing Athabasca River Basin Initiative, which combines climate models, hydrologic models, landscape models and river systems models to emulate flows in the basin and help find answers to "if this, then what?" questions. We also participated in the Alberta Energy Regulator's Area-Based Regulation pilot project, which was limited in scope to water issues in the MD of Greenview and took a collaborative and holistic approach to regulating the orderly development of natural resources. The area-based approach seeks to manage the risks associated with potentially adverse environmental outcomes by combining knowledge of sub-surface conditions and regional land use with local concerns. The Panel's 23 recommendations, which focus on reducing and enhancing water use and promoting collaborative water use planning, were published earlier this year.

We look forward to building on the momentum that we gained in 2017 and to carrying it forward into 2018.

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. To cap off our 10th year, we hosted an Experience your Watershed train journey to our AGM.



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WATERSHED MANAGEMENT PLANNING

The BRWA has now completed six of the 12 components of our watershed management plan (drought, wetlands, riparian areas, source water protection, water quality and water quantity). We have initiated work on the invasive species management and habitat conservation and management components, each of which includes a background research report, policy advice and implementation guidelines.

BRWA WMP: A Plan in Action

- The City of Camrose and Camrose County approved the Camrose Source Water Protection Plan in fall 2016. Implementation actions are now underway, in partnership with the BRWA.
- The BRWA and partners launched the Buffalo Trail Riparian Restoration Program in summer 2017. This program will involve riparian health assessments and landowner projects that promote healthy riparian areas in the eastern reaches of our watershed.

ECHO Network

In 2017, the BRWA became 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

The 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. A few of our new projects include:

Traversing Terrain and Experience Atlas

Developed by the BRWA, this 11" x 11" hardcover book contains 120 pages of local content. It is no ordinary atlas; it is a compilation of stories, art, photography, geography and interesting facts that make the watershed unique. It reflects on how the land has shaped us, and how we have shaped the land. Through grants, we will supply every school and library in the watershed with a free copy.

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.

Battle River Resilience: Finding Common Ground Bike Tour and Documentary

With support from the Community Environment Action Grant, the BRWA hosted over 30 community members on a three-day cycling trip across the watershed exploring energy options and opportunities.

A documentary of the tour will be shown across the watershed in 2018, highlighting ways to reduce greenhouse gas emissions, diversify economies, transition to cleaner energy production and create a culture of conservation and appreciation.





Food For Thought: Saskatoon Pie at the Legislature

To encourage watershed residents to experience the natural bounty of their watershed, the BRWA annually hosts a Saskatoon Pie Baking Competition. With the 2017 bumper crop, we "shared the love" by making 20 saskatoon pies, which were served (with ice cream!) to MLAs and staff at the Alberta Legislature.

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 or organizations, and individuals who are protecting or restoring our watershed. Every year we present three OTIS awards to those who have proven to be OutsTanding In Stewardship.

Paint the City Yellow

Working with over 60 UofA Augustana students, the City of Camrose had all of its storm drains painted with the Yellow Fish Road symbol. The BRWA is the local provider of this Trout Unlimited Canada initiative, which raises awareness about stormwater runoff and provides residents with information on proper waste disposal methods.

Beaver River Watershed Alliance



The Beaver River Watershed Alliance (BRWA) had its 10-year anniversary this past spring. We are thrilled to be a constant figure in the community to help maintain and improve the state of the Beaver River watershed. We are able to make a difference through community engagement, partnerships, scientific study, education and support from members of our community. As of October 2017, the Lakeland Industry and Community Association (LICA) has fully encompassed all areas of its organization, including the BRWA, under one comprehensive environmental umbrella. LICA and the BRWA have been working very closely together on several projects and logistics

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over the years, and the next logical step was to combine to form a stronger organization. With this reorganization, the BRWA will be able to reach a wider audience, be more efficient, and have greater support. The BRWA is still an active WPAC and we will continue to work towards our goal of a healthy watershed for future generations.

Lakewatch

LICA and the BRWA continue to fund the sampling of 10 lakes within the Lakeland region through the Alberta Lake Management Society (ALMS). The water samples determine chemical, physical and biological properties of the lakes. This is an amazing program because it collects reliable scientific data, builds a strong partnership and brings together great volunteers to our organization. To find a full report of the ALMS sampling results, visit their website at www.alms.ca.



Lakewatch - sampling in the Lakeland region.

Jessie Lake Shoreline Cleanup

Once again our annual Jessie Lake Shoreline Cleanup was a great success with the help of students from Notre Dame High School. These students helped to clean up over 1,098 cigarette butts, 126 food wrappers, 43 straws, 87 plastic bags, a couch and much more. We were able to remove 75 kilograms of litter from Jessie Lake! We love organizing this event because it engages youth in our community and it teaches them the positive (or negative) impacts their actions can have on the environment.

Water Stewardship Forum

As a WPAC, the BRWA strives to involve and support other water stewardship groups within our watershed. To connect all of these groups, the BRWA held a Water Stewardship Form - an engaging and informative forum for many stakeholders, such as the Municipal District of Bonnyville, Long Lake Cottage Owners Association, Muriel Lake Basin Management Society and Moose Lake Watershed Society. During the forum we shared recent projects, struggles, successes and future plans for each watershed stewardship group. The Water Stewardship Forum was our highest attended event for the 2016-2017 year and it resulted in a stronger stewardship community.

Youth Engagement

The BRWA reached over 3,800 people in 2016-17:

- Through a variety of youth programs within the Beaver River watershed, we delivered 46 classroom presentations to students in grades K to 12.
- We took part in 36 youth programs and community events within our community.
- With the help of other WPACs, we now offer X-Stream Science to high schools in the Beaver River watershed. We delivered this program to seven high school classes, all with positive feedback about the program.
- We continue to assist with the delivery of the "Walking with Moose" and "Wetland Walk" for local grades 5 and 7 classes, organized by the Moose Lake Watershed Society and Lakeland Agriculture Research Association.
- Our Annual Youth Calendar Contest had a great turn out for the 2017 calendar. We received 133

- entries on the theme of "What about the Beaver River Watershed is special to you?"
- The BRWA continues to be a part of Nature Kids' Explorer Days. Once a month, Nature Kids encourages families to explore the outdoors and learn about nature.



X-Stream Science in action.

Community Access Maps

We have revamped our map of the Beaver River watershed and it is a popular item. The new map not only includes the streams, rivers, lakes and wetlands of our watershed, it also shows you how to access them with the inclusion of primary highways, secondary highways and local roads. You can find our map on our website (www.lica.ca) and you can even download the map onto your smartphone.

Bow River Basin Council



The BRBC's driving force is its membership, which encompasses municipalities, corporations, First Nations, government, non-governmental organizations and individuals. The Council has a Standing Committee aligned with each of four key WPAC Roles.

Convener/Collaborator – Watershed Stewardship Coordinating Committee (WSCC)

The WSCC facilitates collaboration both with and among eight Watershed Stewardship Groups (WSGs) in the Bow Basin. The BRBC is currently holding the position of Chair with the Alberta Stewardship Network, and is represented on the Boards of two WSGs as well as the Technical Committees of two.

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The BRBC's stewardship project support grant is a flagship BRBC program aimed at supporting WSGs in collaborative stewardship projects. Since its inception, the BRBC has invested more than \$1.5 million in stewardship project support across the basin. In 2017 alone, we have provided \$139,000 to WSGs and others to implement various collaborative initiatives.

As a key collaborator in the Okotoks Bioretention Project, the BRBC obtained the initial investment of \$125,000 from the Watershed Resiliency and Restoration Program (WRRP) and leveraged or capitalized that into a project worth more than \$1 million.

Other key accomplishments and initiatives include:

- Global Water Futures Advisory Committee (University of Saskatchewan)
- Institute for Environmental Sustainability Advisory Committee (Mount Royal University)
- Alberta Whirling Disease Committee
- Westslope Cutthroat Trout Recovery Stakeholder
- Representation on the Alberta Ecotrust Foundation Board of Directors



Rafters on the Elbow River.



Funding announcement by Minister of Alberta Environment and Parks, Shannon Phillips.

Monitoring/Reporting – Science Committee (SC)

Work on the BRBC's Environmental Condition Reporting program continued through the year and we also assisted a WSG with a State of the Basin Report.

2017 has also seen a mounting broad interest in community-based monitoring. Multi-lateral discussions have commenced, led by Alberta Environment and Parks, looking at the establishment of an enhanced and reliable monitoring system across the province. This is a priority discussion for the BRBC.

In 2017, the BRBC directed \$14,000 to external monitoring activities, including:

- University of Calgary doctoral research on the Elbow River
- Alberta Wilderness Association monitoring in McClean Creek

Planning/Policy – Legislation and Policy Committee (L&P)

The priority project in this area is a review of the 2006 South Saskatchewan River Basin Water Management Plan, along with the three other South Saskatchewan WPACs. In addition, many BRBC members and select staff were involved in continuing flood mitigation work, importantly the Bow River Water Management Advisory Committee and associated Bow River Working Group, as well as sharing subject matter expertise with the City of Calgary Community Advisory Group.

Other key accomplishments and initiatives include:

- Support (financial and staff) to two WSG Watershed Management Plans
- Bow River Phosphorus Management Plan

Education/Literacy/Outreach – Stakeholder Engagement Committee (SEC)

Six cornerstone events were delivered in 2017: four Quarterly Educational Forums, a Science Forum and the L&P Workshop. The BRBC also publishes highly informative quarterly newsletters.

In 2017, the BRBC directed \$18,000 to external education and literacy activities in the Bow Basin, including Alberta Tomorrow, Inside Education, CAWST and the Alberta WaterPortal.

Other key accomplishments and initiatives include:

- Presentations to two County Councils and one AAMDC Information Session
- Presentations to seven schools
- Two interpretive sign projects (Chevron–Texaco Learning Pathway and Bragg Creek)

Looking to the future, the BRBC is planning ahead for organizational stability and longevity. There are two main ways the Council does this. First, our Youth Committee is tasked with the responsibility of attracting young members and then keeping them engaged. The Youth Committee often acts as a spring board onto other standing committees, and partners directly with the Science Committee to plan and deliver the BRBC's annual Science Forum. Second, the Governance Committee is tasked specifically to work on succession planning and financial stability.



The Bow River in Calgary.

Lesser Slave Watershed Council



In April 2017, the Lesser Slave Watershed Council (LSWC) wrapped up our tenth year of operation as a WPAC. The organization has been operating as a charity since 2010 and our Board of Directors are volunteers from all sectors across the watershed.



LSWC staff and Board, June 2017. Back L-R: Wendy Freeman, Kaylyn Jackson, Charmaine Larsen-Willier, Brian Rosche, Todd Bailey, Linda Cox, Meghan Payne, Bob Popick, Claude Smith. Front L-R: Robert Nygaard, Jule Asterisk, Joy McGregor, Tammy Kaleta.

LSWC's STRATEGIC GOALS

- Establish an ongoing collaborative planning and management framework for the Lesser Slave Watershed.
- 2. Facilitate watershed research that addresses issues and enables management actions within the watershed.

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- 3. Promote watershed awareness and literacy through education, outreach and stewardship programs.
- 4. Establish a strong operational model in which the LSWC is sustainable, has clear governance, capacity and funding.

WATERSHED MANAGEMENT PLANNING

The past year has seen significant progress towards the development of the Lesser Slave Integrated Watershed Management Plan (IWMP). The LSWC is working with Palliser Environmental Services Ltd. to complete the IWMP by 2018.

Some achievements include:

- The second working draft of the plan was widely circulated for stakeholder review and comment
- Two Municipal Working Group meetings
- Three IWMP Steering Committee meetings
- Plan review by the Technical Advisory Committee
- Plan review by the Government of Alberta's Cross-Ministry review panel and other staff
- IWMP webpage kept up to date
- Stakeholder database established to track communication and engagement
- LSWC staff and Chair met with Indigenous communities to build relationships and provide information about the IWMP

For more information please visit: www.lswc.ca/ integrated watershed management plan.

TRIBUTARY WATER OUALITY MONITORING

In April 2017 the LSWC began a 5-year tributary monitoring program across our watershed. Past State of the Watershed reporting and current planning work identified significant data gaps for water quality in our basin.



Meghan Payne, LSWC Executive Director, and volunteer Brooke Monteith prepare to collect a sample on the West Prairie River in April 2017.

- With financial support from local municipalities, West Fraser and local oil and gas companies, the LSWC has completed our first year of sample collection.
- We collected samples at 15 locations on five major tributaries 10 times from April to October and will continue to sample these sites at the same frequency for the next four years.
- Short water quality summaries will be completed after each field season with a comprehensive water quality report after five years' worth of data have been collected.

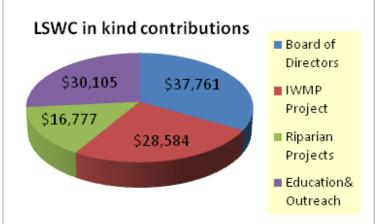
EDUCATION AND OUTREACH HIGHLIGHTS

- LSWC and Alberta Environment and Parks hosted an Aquatic Invasive Species workshop in April
- Watershed Wise education kits provided to five schools in the watershed
- 11 Little Green Thumbs Gardens in local schools.
- Community river bank cleanups in High Prairie and Devonshire Beach with local RBC branch partners

- 27 classes joined us on field trips with the Lesser Slave Forest Education Society
- 18 classroom presentations delivered by our Watershed Coordinator
- Provided information packages to two summer fishing tournaments
- Participated in 12 summer community events
- Interacted with over 1,370 people in our watershed from May to September
- Participated in the ALMS annual workshop
- Promoted Agrium's Caring for our Watershed Program
- Four landowner riparian improvement projects underway with support from the Watershed Restoration and Resiliency Program (WRRP)

SUMMARY OF CONTRIBUTIONS

- \$295,000 in support from the Government of Alberta through our core grant.
- A 2016 WRRP grant in the amount of \$37,500 to support riparian and wetland enhancements.
- \$58,333 in revenue from grants and sponsorships outside of the government.
- In-kind support is calculated for the time our Board and committee members, volunteers and partners spend working with the LSWC. The chart below breaks down our in-kind contributions by program area.



Mighty Peace Watershed Alliance



As of April 2017, the Mighty Peace Watershed Alliance (MPWA) had completed six years of operations as the official WPAC for the Peace and Slave River basins. This multi-sector, not-for-profit society is committed to planning for an ecologically functioning watershed while ensuring environmental, economic and social sustainability.

The organization continues to grow and develop. To date, the Board has successfully completed their first State of the Watershed (SOW) report and a draft Integrated Watershed Management Plan (IWMP). The completed IWMP will be ready by the end of March 2018. All reports and plans can be found on our website at www.mightypeacewatershedalliance.org.

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 residents throughout the watershed.

The MPWA uses and shares sound science, knowledge and information in a number of initiatives.

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It is a strong voice and can deliver appropriate education opportunities and forums for open and frank discussions. The MPWA works with Indigenous communities, municipalities, industries and other organizations to find practical solutions for water issues. Specifically, it works through agreed processes to identify common areas of interest and then engages stakeholders to find workable actions, beneficial management practices, and appropriate policies and guidelines. Through stakeholder engagement, the MPWA provides opportunities for stakeholder initiatives, concerns and issues to be brought to light. Implementation of identified strategies is the follow up to a consensus-driven process where the community is a part of the creation of solutions for their identified areas of interest.

ACTIVITIES

Highlights for 2017 include:

- 1. Production of a draft IWMP. Currently the MPWA is engaging stakeholders to ensure that there is good understanding of and support for the plan. There will be final tweaking and then a final IWMP by end of March 2018. Four main issues of concern were addressed as identified in the Board-approved SOW March 2015: Water Quality, Availability and Consumptive Use; Wetlands and Wetlands Loss; Non-Saline Groundwater; and Peace River Flow Regime. This has been a massive piece of work that has allowed the MPWA to host several working groups to generate ideas, clarify issues and suggest possible solutions. The opportunity to engage with various stakeholders has been a very informative and thought-provoking process, and the MPWA identified further potential projects and education opportunities throughout the watershed through this work.
- 2. Collaborative and Partnership Projects. The MPWA has taken the lead on several projects

and has aligned with a number of partners to fulfill both on-the-ground project work and education objectives. Resources for these projects come from partners as we collaborate to achieve a variety of consensus-based outcomes. A few of the projects initiated or continued in this past year include: a) Redwillow Watershed Restoration Plan, including fish passage on the Beaverlodge River: b) Source Water Protection Planning and Education, with opportunities for a speaker series from communities that have already moved towards Source Water Protection Plans (e.g., Bigstone First Nation, Town of Grande Cache); c) Leading a process for the Grimshaw Gravels Aquifer Management Advisory Association regarding Source Water Protection Plans and Education; d) Improved Streambank Livestock Crossing Project, innovating affordable livestock crossing options that reduce ecological impacts; e) Streambank Stabilization and Extension, stopping erosion and reintroducing meandering to a stream; and f) Recreational Forum and Stewardship Group Learning Day, to provide a watershed perspective and cultivate a stewardship ethic.

- 3. The Alberta Energy Regulator's pilot project: the Area-Based Regulation Panel for the MD of Greenview. This multi-stakeholder committee has now filed its recommendations.
- 4. Wapiti River Water Management Plan Steering Committee, Technical Committee and Engagement Committee. This is an AEP project that utilizes a strong steering committee to achieve its outcomes. The Committee has just completed its report and AEP is now formalizing the recommendations into a Water Management Plan.

5. Working Groups. The IWMP process identified a number of potential areas for work to occur, and so far the MPWA has moved forward in identifying wetlands mapping needs, establishing a Wetland Education Committee, identifying some top priority areas for source water protection planning, offering education forums for stakeholders and the public, collating and making public information on groundwater resources, and sharing knowledge around community values tied to the Peace River Flow Regime.

BOARD AND STAFF

The MPWA staff consists of three full-time positions who collaboratively lead and support a number of initiatives and general organizational duties.

The experience, insights and knowledge of the Board of Directors are invaluable and a definite benefit to all the people within Alberta's largest watershed, the Mighty Peace, which covers approximately 30 per cent of the province. 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 11 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



The Milk River watershed is a small, semi-arid, trans-boundary basin. Alberta shares the Milk River watershed with the province of Saskatchewan and the state of Montana, U.S.A. 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 people, industry and economic growth in the region. Located in the most southern part of Alberta, the Milk River is the only watershed in the province 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 local residents to effectively manage watershed resources. In addition to core operations, the Council is also undertaking larger projects that complement the implementation of the Milk River Integrated Watershed Management Plan (IWMP) and promote their key management strategies:

 Completing Phase 1 and initiating Phase 2 of the riparian restoration project funded by the Government of Alberta's Watershed Resiliency and Restoration Program (WRRP Email: mary@mrwcc.ca Phone: (403) 647-3808 Website: www.mrwcc.ca Twitter: @MRWCouncil Facebook: milkriverwater

- The long-term Surface Water Quality Monitoring Program
- Source Water Protection Project
- Overwintering Habitat Stewardship Project
- Transboundary Watershed Video Project

TEAMS

The MRWCC consists of 18 Directors and three staff members, and has established four teams to work on several initiatives.

1. Community Awareness and Involvement Team

- Hosted the 1st annual Community Appreciation Forum on March 9 to promote community involvement and environmental stewardship of the Milk River watershed, and planning the 2nd forum to be held in winter 2018
- Hosted the 12th MRWCC Annual General Meeting on May 25
- Executing four Youth Engagement Programs:
 - The Agrium-sponsored "Caring for Our Watershed" Program
 - A school annual Poster Contest
 - Ongoing in-classroom and field presentations on watershed topics
 - The Southern Alberta Youth Range Days Program (July), in partnership with local rural municipalities, Alberta Conservation Association, and GOA
- Completed one of two Meander newsletters reaching over 1,000 watershed homes, and incorporated messaging into social media
- Ongoing maintenance of the MRWCC website with a strong social media component
- Presented workshops and meetings
 - Strategic Management Panning session on October 25 and 26.
 - Planning a Xeriscape project in conjunction with the Town of Milk River

- Community Outreach Programs:
 - Participated in the Milk River Bonanza
 Days parade and presented a display that
 brought awareness of MRWCC activities to
 the community
 - Held three educational tours to promote watershed management awareness
 - Planning the annual Heritage Tree and Watershed Stewardship awards to promote community environmental stewardship initiatives

2. Research and Monitoring Team

- Working on long-term water quality monitoring on the Milk River and tributaries
- Conducting the Milk River overwintering habitat study and stewardship project – funded by the Habitat Stewardship Program for Species at Risk (Environment Canada):
 - Planning an under-ice habitat identification study at 12 sites, and a stewardship project is underway on adjacent riparian lands to improve habitat for multiple species at risk
- Working with landowners on Phase 1 of the WRRP-funded project:
 - Implemented 11 portable and static livestock watering systems
 - Developed one spring for alternative water
 - Installed fencing for 19.5 km of riparian corridors, habitat enhancement and full riparian exclusion
 - Six acres of riparian restoration and wildlife habitat enhancement plantings
 - Mitigated impacts from 970 head of cows/ yearlings' direct uncontrolled access to the Milk River
 - Planted 2,685 trees and shrubs at nine sites
 - Conducted one tour (August 2016)
 - A public meeting and tour were conducted in 2016 to promote the program
 - Disseminated four Meander Newsletters
 - Initiated monitoring work for riparian health and habitat restoration
- Source Water Protection Planning (SWPP) Workshop, April 28:
 - SWPP is a site-specific process designed to maintain or improve the condition of

- surface water and groundwater through a proactive, risk-management approach
- Priority areas have been identified, however, plans have been scaled down until further funds are secured
- Planning to facilitate a SWPP for users of the Whiskey Valley Aquifer (Water Coops, Town of Milk River)

3. Water Supply and Management Team

- Continue to participate in the Alberta-Montana Water Management Initiative, a joint crossborder council formed to address water sharing and management issues for the Milk River
- On-going investigations regarding storage within the Milk River watershed
- Facilitate completion of the Milk River Approved Water Management Plan Phase 1, which is currently awaiting Cabinet approval; discussions on Phase 2 will then begin to encompass climate change adaptation

4. Transboundary Watershed Team

- Continue to support the Transboundary Grasslands Partnership Project with AEP, Prairie Conservation Forum and Saskatchewan South of the Divide group
- Continue cooperation on transboundary issues such as species at risk and connectivity of corridors:
 - Co-hosted a River Rendezvous Tour (June 27), to continue dialogue with our partners in Montana, highlighting the Canadian portion of our shared watershed, the work of the MRWCC and challenges the community faces regarding water security and species at risk
 - Planning the 2018 Transboundary Grassland Workshop in January 2018 in Glasgow, MT, to improve communication on transboundary issues, stewardship implementation and invasive species
- Transboundary Watershed Video Project is underway in partnership with the Montana – Milk River Watershed Alliance.

North Saskatchewan Watershed Alliance



The North Saskatchewan Watershed Alliance (NSWA) is a multi-stakeholder watershed planning and management partnership formed in 1997 and incorporated as a non-profit society in 2000. The NSWA provides a forum to identify and address issues affecting the North Saskatchewan River watershed in Alberta. In collaboration with governments (federal, provincial and municipal), industry, utilities, agricultural groups, environmental groups and individual citizens, 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 the Integrated Watershed Management Plan (IWMP) for the North Saskatchewan River Basin, which provides strategic, long-term advice to protect regional water supplies and achieve the three goals of Alberta's Water for Life Strategy: safe, secure drinking water; healthy aquatic ecosystems; and reliable, quality water supplies. The IWMP provides the guiding framework for all NSWA projects and activities.

Much of the NSWA's current work is delivered through three municipal watershed partnerships: the Sturgeon River Watershed Alliance, the Vermilion River Watershed Alliance and the Headwaters Alliance. The NSWA provides technical, administrative and project management support to these municipal partnership initiatives.

The Sturgeon River Watershed Alliance (SRWA) consists of 10 urban and rural municipalities, working to develop a watershed management plan by 2019. The SRWA currently oversees several technical

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and policy projects which will provide information to assess watershed management needs and priorities. Inter-municipal collaboration will be a key component of current and future success.

In 2017, the NSWA completed a project through the federal Environmental Damages Fund, which produced two consultant reports on water supply for the basin:

- Assessment of Existing Water Supply and Demand Information for the Sturgeon River Basin
- Isle Lake and Lac Ste Anne Water Balance Assessment

Further analyses on the hydro-climatic conditions of the Sturgeon River were completed by NSWA in 2017, culminating in two Technical Bulletins:

- River Flows, Lake Levels, Groundwater Levels and Climate Patterns in the Sturgeon River Basin
- Lake Level Trends in Alberta Preliminary Results

A second Environmental Damages Fund grant is being used to complete a riparian health assessment and fish habitat survey for the Sturgeon River, while a grant from the Alberta Community Partnership program is funding detailed water quality and aquatic ecosystem health assessments.

The Vermilion River Watershed Alliance (VRWA) was incorporated as a non-profit society in 2015, with representatives from nine urban and rural municipalities, provincial and federal governments, conservation organizations, academia and a drainage district. Their mission is to implement the Vermilion River Watershed Management Plan (VRWMP), completed in 2012, within a collaborative framework. Implementation is proceeding in partnership with local landowners through

individual restoration and enhancement projects on their lands. Funding support is provided through multi-year grants from the Watershed Resiliency and Restoration Program (WRRP) and the federal National Wetland Conservation Fund and EcoAction programs. Nine restoration and enhancement projects were completed in 2016 and 29 projects were approved in 2017. Project activities include managed livestock exclusion through fencing, stream bank restoration through re-vegetation/tree planting, and the implementation of a grass buffer zone between cropland and riparian areas. A third year of restoration projects will be promoted for implementation in 2018/2019.

In 2017, a new WRRP grant application by the VRWA/NSWA was approved. This new project with the ALCES Group will identify strategic priorities for conservation and restoration in both the Vermilion and Sturgeon River basins to enhance watershed resiliency to flood and drought. The project involves detailed hydrologic modelling to assess climate, landscape and water management influences on river flows in both basins, using the Raven hydrologic model and the ALCES Online interface.

In March, the VRWA Board re-evaluated the goals and directions of the VRWMP, assessed past and current work, and determined future priorities. A summary is available at the new VRWA website: http://vrwa.ca/the-watershed/.

The Headwaters Alliance (HWA) Steering Committee, formed in 2014, consists of eight urban and rural municipalities. A preliminary work plan to address watershed data gaps was developed in 2015. The HWA received a WRRP grant in 2017 to undertake a riparian health assessment of over 2,000 km of riparian areas on the major tributaries of the Modeste sub-watershed. The final report describes an innovative methodology that uses remote sensing data to evaluate the intactness of riparian areas, as well as pressures on riparian health from adjacent upland areas. The combination of these two methods will provide practical advice for prioritizing conservation and restoration efforts.

The NSWA has also been facilitating and chairing a municipal group studying surface water management

issues in the Blackmud and Whitemud Creek watersheds. The municipalities involved are Leduc County, Strathcona County, the Cities of Edmonton and Leduc, and the Town of Beaumont, with Alberta Environment and Parks (AEP) as an advisor. The study, funded by an Alberta Community Partnerships grant, was completed in 2017 and the final report accepted by the municipal participants. The key recommendation of controlled release rates from new developments will be presented to municipal councils in the coming months.

In 2017, the NSWA partnered with several lake watershed stewardship groups to support community aspirations concerning lake health, including the Wabamun Watershed Management Council, the Baptiste and Island Lake Stewardship Society, and the Antler Lake Stewardship Society. The NSWA produced a detailed State of the Watershed Report for Lac Ste Anne and Isle Lake and provided community briefings on the key findings.

The NSWA also held several events in 2017 to support our mandate to educate and increase public awareness of watershed information. A Water Quality Forum was held in April as well as two collaborative conferences: the Alberta Recreational Lakes Workshop (April) in partnership with AEP, and the Flowing Waters Conference co-sponsored with the Partners for the Saskatchewan River Basin (October). These forums promoted communication about watershed issues and provided opportunities for networking and building relationships between many stakeholder groups.

Other community engagement activities included participation in EPCOR's RiverFest, school presentations, Telus World of Science "Dark Matters" event, a school field trip to a local lake and numerous community presentations.

The book "Living in the Shed" is designed to promote awareness and understanding of the importance of watershed management. With a generous donation from EPCOR, copies of the book were given to junior high and high schools in the Edmonton area. The book has been well received as an outreach tool and distribution continues.

Oldman Watershed Council



Discover & Learn: Providing Information and Inspiration to the Community

The OWC is particularly proud of our Historical Timelines, with over 500 entries of text, maps and photos ranging from 60,000 BCE through to the present day. The project was funded in part by the Alberta Historical Resources Foundation and attempts to help citizens and policy makers at every level understand better how decisions and events in our past continue to impact contemporary watershed management and health.

Running in parallel to the timelines is an impressive series of maps that depict land use from Blackfoot traditional land-use practices through to projections for the year 2060, based on a "business-as-usual" model. These maps have sparked great interest in the community and we have been honoured with a number of presentation requests.

Also new this year are several videos, which were created in collaboration with community partners. The videos address three core demographics: scientists; the general public; and children, parents and educators. Our Collaborative Partnerships make this possible by providing funding and best-practice initiatives. For example, the City of Lethbridge is looking at water and wastewater treatment

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innovation, everyday water consumption and habits, and tips and tricks to improve stormwater and urban watershed health, while the Potato Growers of Alberta are our showcase for rural watershed health. These videos show what it is like to create agricultural abundance in a semi-arid climate, how snowpack in our headwaters contributes to crop success, and what consumers need to know about water and soil management in Alberta potato production.

Taking Action: Volunteer, Donate, Make A Change

Whenever we engage the public, we try to inspire them not only to learn, but also to take action. In fact, "Moving from Talk to Action" has been one of the main themes at OWC in 2017. Based on a talk we gave at the University of Lethbridge to the "Global Citizenship Cohort," a team of seven students started their own Adopt-A-River project near Taber. They learned about water and soil testing and used their project as a platform to inspire others and set examples. In fact, one of the participants earned our "Triple Crown" honour: not only did he volunteer, but he donated (twice) and has become our youngest-serving Board member!

The group was one of 42 signatories of the Southern Alberta Water Charter (#SAWC17). Based on a United Nations declaration from 2010 that affirmed clean water as a human right, the Canadian federal government's Water Act of 1985, and Alberta's Water For Life Strategy in 2003, OWC sought to produce a document that would inspire municipalities, counties, businesses, communities and families to move from talk to action and pledge to undertake a project for the betterment of watershed management and health. The challenge launched in May with a moving signing ceremony at Lethbridge City Hall that was opened by traditional song and drumming composed especially for the event by the North

Blood Drummerz. Signatories had until September to complete their actions, and OWC was busy showcasing the projects with photos, interviews and blogs throughout the summer.

Minister of Environment and Parks, Shannon Phillips, honoured us with words of praise and by presenting the OWC Awards at the Closing Ceremony held in November. Sponsored by the Alberta Real Estate Foundation, #SAWC17 inspired not only many projects and enthusiastic media coverage, but highlighted the ability of everyone - and anyone - to take concrete action toward better watershed management and health. The youngest signatories were members of a daycare who participated in the City of Lethbridge's Yellow Fish Road and Gutter Buddy programs. #SAWC17 has sparked interest from other communities with a roadmap to increased community engagement and concrete actions.



A Grade 3 student liaises with one of her team members at an activity during the #SAWC17 Closing Ceremony.

Research & Projects: Headwaters, Tailwaters ... and Everything in Between

Reducing threats to the headwaters is Goal 3 of our Integrated Watershed Management Plan (IWMP). Already in its third year, our Engaging Recreationists Program has gone from a tentative pilot project to gaining attention throughout Canada as a model for action. The program engages backcountry users in restoring places where Albertans recreate, changing our behaviour to reduce impacts, and becoming better environmental stewards. OWC works with a variety of people and organizations, including motorized recreationists, random campers, anglers and boaters.

OWC is helping people understand the cumulative effects of creating linear disturbances. Together with community partners, we are also encouraging motorized recreationists to keep wheels out of water, and the positive results are evident throughout the watershed. We are protecting our headwaters, water quality and critical habitat for endangered species such as Westslope Cutthroat Trout. This project was funded by Alberta Environment and Parks' Watershed Resiliency and Restoration Program, the Government of Canada Habitat Stewardship Program, Alberta Conservation Association and Alberta Ecotrust Foundation.

Meanwhile, on farms and ranches, OWC ran a three-part community engagement series, "Voices Of The Oldman: Agriculture Matters" (VOTO), which invited landowners, producers and agricultural groups from throughout the watershed to help re-envision our Watershed Legacy Program. The Oldman watershed includes some of the most productive farm and ranchland in the world. The OWC is proud of its reputation as a "hands-on" organization working on the land, directly with our rural stakeholders.

Feedback from the VOTO sessions indicated that the agricultural community feels a strong need to bridge the gap with urban consumers, and to address both misinformation and the need for education about what happens on the land. Social license was clearly the main issue of concern for participants, and OWC has subsequently presented to a number of groups on this topic, including the Crop Sector Working Group.

Red Deer River Watershed Alliance



2017 has been an exciting yet somewhat challenging year for the Red Deer River Watershed Alliance, with a key staff transition early in the year. Our team embraced this opportunity to explore the previous position and emphasize the importance of creative communications to influence the heads, hands and hearts of our community.

Our team continues 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 MANAGEMENT

The RDRWA continues to work on implementation of the recommendations in Blueprint: An Integrated Watershed Management Plan for the Red Deer River Watershed (Phase One, Water Quality). A decision support tool that focuses on maintaining and improving water quality, Blueprint covers lake management, water literacy, groundwater monitoring and source water protection, among other topics.

Phase One of our Social Innovation Lab "Project Blue Thumb" pivoted in May of this year and six draft Action Pathways were developed: Building Alberta Water Narratives, Promoting Ecological Function, Creating Municipalities of the Future, Upholding Indigenous Voices, Strengthening Water Security and Supporting Food Production of the Future. These

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pathways are a new approach to focus and catalyze shared watershed management efforts, which we anticipate will guide all of the work at the Alliance from April 2018 onward.

OUTREACH, EDUCATION AND STEWARDSHIP

The RDRWA runs a series of programs to engage youth and adults to learn more about watersheds and encourage stewardship. We reached approximately 800 students through 23 school visits during the summer, and we presented at a number of events, including Ellis Bird Farm, Red Deer College youth camps and an Ag Service Board event at Olds College. We continue to work with the Alberta Lake Management Society on their LakeWatch program, with a grant from the federal Environmental Damages Fund.



To nurture partnerships under Water for Life, the RDRWA continues to support local watershed stewardship groups like the Gull Lake Watershed Society. We assisted them with a Watershed Resiliency and Restoration Program application to secure \$100,000 from Alberta Environment and Parks.

INNOVATION AND ACTION

The RDRWA is committed to seeing good ideas get off the ground and implemented. On September 7 and 8, we held our Rally for the River. This unique and inspiring two-day event, co-hosted by RDRWA and Alberta Ecotrust, brought people together to learn about regional water challenges, explore possible breakthroughs and chart a course forward for the future of watershed management in the Red Deer River watershed. Day One brought 50 invitees together from various levels of government, non-profits/ENGO's, First Nations communities and private industry, to delve into the complex world of water challenges and to consider new, collaborative, leading-edge approaches to tackling some of these critical water issues. Over the course of the day, participants had opportunities to explore each of the six Action Pathways, share insights and discuss possible actions.

Close to 70 people attended Day Two of Rally for the River and the highlight of the day was a keynote presentation from eminent landscape ecologist, Dr. Brad Stelfox, who demonstrated how land uses across the watershed have changed over time, how this influences water quality, and what these changes mean for future watershed health. Over the two days, participants were asked to share their interest in being involved in Phase 2 and we were happy to see a strong interest in leading or supporting future work.

CONNECTING TO OUR COMMUNITIES

We frequently host events aimed at engaging the heads, hands and hearts of our community members. We were pleased to have a presentation from Dr. Hans Schrier of UBC at our "Reimagining Municipal Water in the 21st Century" spring event. On Earth Day (April 22), we celebrated Canada 150 through a water lens with approximately 200 people. SPLASH! was led by the RDRWA, the Waskasoo Environmental Education Society and the City of Red Deer, alongside a range of partners. It was held at Historic Fort Normandeau – a venue rich with the history of First Nations, Métis peoples and European settlers.

There were children and adults writing love letters to the river, expressing their love for all that the river and local waters bring to us. There were storytellers participating in a "living library," sharing their personal water stories with the smell of smores toasting over a campfire nearby. A big thank you to all of our members, supporters and funders who have made these types of events and programs possible!



South East Alberta Watershed Alliance



After a year of organizational renewal and rebuilding, 2017 found SEAWA invigorated, confident and ready to fulfil their traditional WPAC role as well as tackle new roles and challenges.

The year started with the development of a new three-year Strategic Plan. SEAWA's 2017-20 goals focus on organizational sustainability; watershed assessment and development of watershed knowledge; development of watershed management plans; continued stakeholder engagement, education and outreach; implementation of environmental stewardship initiatives; and contributing to the implementation of the South Saskatchewan Regional Plan.

At the Annual General Meeting on June 8, SEAWA's mission statement was updated to emphasize its role in educating the public and supporting watershed knowledge development. SEAWA also formally acknowledged that in terms of hydrology, the "SEAWA watershed" is composed of two separate watersheds, the Alberta portion of the South Saskatchewan River Sub-Basin, and the Pakowki Lake watershed. SEAWA bylaws were also updated at the AGM, in particular relating to Board composition – municipal rural and urban seats were increased from one each to two.

SEAWA operated with a staff capacity of 1.5 full-time equivalents: Marilou Montemayor (Executive Director), Patrick Jablkowski (Watershed Coordinator), and a summer student, Seline Solis (University of Calgary). SEAWA currently has 16 board members (out of 17 seats) and four working committees –

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Executive, Technical, Communications and Policy. After a long involvement with SEAWA, Stuart Murray stepped down as Chair and was replaced by Garry Lentz.

SEAWA has been energized through the receipt of a two-year project grant of \$221,000 from the Government of Alberta's Watershed Resiliency and Restoration Program (WRRP) to conduct riparian area assessments and restoration in the Seven Persons Creek watershed. Under this grant, 10 km of degraded riparian areas will be restored in partnership with landowners and land managers on a 50:50 cost-share basis. The project started on April 1, 2017, and ends on March 31, 2019. Conversations with potential partners (City of Medicine Hat, golf course owners, landowners and Medicine Hat College) have started, and Stantec Consulting was awarded the contract to conduct the first stage of the project: a watershed-scale riparian areas assessment through the analysis of satellite imagery. The assessment report is expected to be completed by April 2018 and on-the-ground restoration work will begin in the spring of 2018. Communication and education is an important part of the project and SEAWA staff have been busy hosting project outreach activities.



Minister of Alberta Environment and Parks, Shannon Phillips, announcing grants for southeastern Alberta with Honourable Robert Wanner (right), Darcy Geigle, Cypress County (middle), and Stuart Murray, SEAWA Chair (left).



Participants at the Educational and Project Information event, November 2, 2017.

An education forum on environmental stewardship on the farm was held on March 10. Topics included groundwater quality, the economics of environmental stewardship, biodiversity and invasive species, and a panel of landowners shared their experiences in implementing Beneficial Management Practices. Another educational event was held on November 2, which also served as an information event for the Seven Persons Creek project. Speakers brought together the relationship between riparian hydrology, riparian area functions and water quality, and presentations included examples of riparian management by the City of Calgary.

In 2017, educational and resource materials were prepared by SEAWA staff and the Technical and Communications Committees, to be used by all watershed stakeholders. Materials include two info sheets: "Understanding Water Quality in the SEAWA Watershed" and "Recognizing Riparian Ecological Benefits." In addition, a reference booklet was prepared: "Riparian Areas and Riparian Plants in the Seven Persons Creek Watershed." The SEAWA website was also updated with a "Projects" page, where the application for funding (for the Seven Persons Creek project) and other resource materials are posted.

SEAWA's Education and Outreach program was delivered by our summer student in partnership with the local Praxis Society. A total of 473 students were reached through visits to five schools and three summer camps. SEAWA participated in several local community events as well as forums, workshops and meetings of its watershed network organizations.

SEAWA is looking forward to another year of productive partnerships, the implementation of collaborative environmental stewardship projects, the preparation of proposals and grant applications for more stewardship projects, continued educational activities and watershed community engagement, and ongoing learning and sharing with other WPACs and water and watershed groups.



SEAWA Technical Committee meeting, August 31, 2017.

