



Caring for the Green Zone

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Cows and Fish has IMPACT !

When Cows and Fish started over 25 years ago, it was with a philosophy to take a different approach. At the time, that meant recognising the practical wisdom of landowners, marrying it with sound science, and presenting it in a way that valued and respected both, to foster improved riparian stewardship. Included has been a mandate to do our work within the context of the *Cows and Fish Process*—an approach or framework to create awareness, build teams, develop and showcase new tools or techniques, a commitment to community led decisions, and monitor to evaluate impact. Evaluating riparian health changes gets at the ecological changes; evaluation by external social scientists has enabled us to affirm the value of our *Process*, emphasize areas for greatest success, and share lessons learned with others.

In 2017, we invited everyone who we have done riparian health assessments and inventories with to provide feedback on the impact of working with us. The research, done by The Praxis Group and NRG Research Group, led to over 300 surveys as well as interviews with individuals from many past or current partnering organizations. We wanted to understand how our work influenced riparian knowledge and management, and what kinds of interactions were most useful. What we found was very positive but also gives us direction and guidance on future work.

The results? Simply put, Cows and Fish has helped a lot of people learn new information and make management changes (Yay!) – and there are lots of additional things we learned. Landowners who are part of a watershed group are more likely to increase their knowledge as a result of working with us (84%), compared to those not part of such a group (66%). This is likely because our riparian health field days, presentations, and many local community-based activities are done in partnership with a local watershed or municipality, increasing the likelihood of diverse interactions and learning from neighbours – affirming our preferred approach - to work at a community level to raise awareness. It confirmed that people do not learn everything the first time we interact with them - those with more interactions were more likely to have increased their knowledge, emphasizing the need for diverse and multiple interactions.

The results show we influenced *how* and *when* changes were made too, since almost half of people made a change sooner than they would otherwise, and over two thirds made it differently, as a result of working with us – meaning we are increasing understanding of management options and alternatives. Getting change on the ground, by helping or motivating others to manage or use their land in a new or different way, resulting from increased knowledge, is what stewardship is all about.

What does this all mean to you? For those of you that have worked with us, partnered with us, supported us—thank you! If you are working for an organization, this research may help inform your program design and delivery. For instance, ‘a sense of responsibility to manage the area for health’ was the most common motivation for making a change, while ‘access to financial resources’ was much less important—these, along with other findings, can help us be more effective, understanding what landowners and communities need to help them learn or help make land management decisions.

For full details, the report will be available on our website.



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Two-Day Course in Riparian Management

Are you a farmer, rancher, or acreage owner with a “riparian area” – that is, land that borders some sort of water feature? Perhaps you have a stream running through your property, a small pond out back, or even just a wet spot in your cropland. If you do, then the next question is: **are you managing your riparian areas to their full potential?**

Throughout the summer of 2018, the Agroforestry and Woodlot Extension Society (AWES), Cows & Fish and several Counties and MDs around Alberta are partnering to deliver a mini-course that aims to help landowners manage their riparian areas in ways that maximize the environmental, social, and economic benefits to themselves, their community, and the greater watershed. Examples of these benefits include improved water quality, moderation of floods and droughts, erosion reduction, wildlife habitat, forage production for livestock, recreational opportunities, and alternative enterprises such as timber, firewood, fruit, nuts, mushrooms, and medicinal plants.

The course will begin with a brief background on riparian areas and their importance within the larger watershed. Participants will then get the chance to visit a riparian area, where they will learn how to conduct a site assessment for determining riparian health and potential to provide functions, goods, and services.

Back in the class, participants will be given maps of their own riparian areas and other tools to help define a vision and management plan. Course staff will support this exercise through presentations and one-on-one technical assistance on potential management practices that landowners may wish to consider (e.g. to provide opportunities for sustainable grazing, fruit or timber production, wildlife habitat, etc.), and an additional field visit, weather permitting. The course will end with participants having the opportunity to share their vision and management plan with other participants to receive further feedback and insight.

In short, this course includes:

- Two full days of instruction/active participation on riparian area assessment, restoration and management. This includes site visits to nearby riparian areas each day, weather permitting.
- Printouts of background information and management tools, including a course workbook, relevant informational factsheets and manuals, laminated maps of participants' properties, and more
- Lunch and snacks/refreshments for both days

The fee for this two-day course is **\$20 per participant**. This fee has been greatly reduced, as the majority of course costs are being covered by a grant from the Watershed Resiliency and Restoration Program (WRRP), administered by Alberta Environment and Parks. The primary objective of WRRP is to increase the natural ability of the province's watersheds to reduce the intensity, magnitude, duration and effects of flooding and drought through watershed mitigation measures. Widespread implementation of the riparian restoration and management practices taught in this course has the potential to mitigate flooding and drought throughout the watershed while also providing direct benefits to landowners.

For more information and to register for any of these courses and workshops, please check out www.awes-ab.ca/events or cowsandfish.org/whatsnew/events or contact a County/M.D. near you.

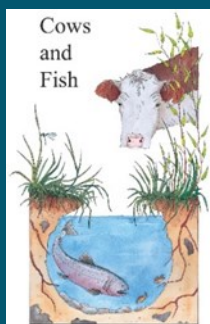


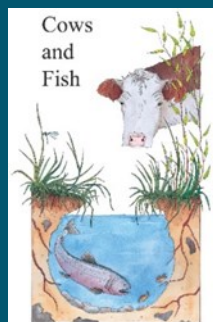
Riparian areas can grow many things, what other foods or goods could you provide?

Photo Credit: Saskatoon Berry Council



What else could this riparian area be doing for you?
Photo credit: AWES.





Two-Day Course Dates, Locations and Contacts

9:00am to 4:00pm each day (doors open at 8:30am)

May 31 & June 1 – Rocky View County

Delaney McNaughton DMcNaughton@rockyview.ca or 403-478-8273

June 15 & 16 – Northern Sunrise County

Becky Devaleriola bdevaleriola@northernsunrise.net or 780-322-3831

July 19 & 20 – Brazeau County

Benjamin Misener BMisener@brazeau.ab.ca or 780-542-2667

July 23 & 24 – Mountain View County

Lorelee Grattidge lgrattidge@mvcountry.com or 403-335-3311

August 10 & 11 – Lac Ste. Anne County

Lorraine Taylor ltaylor@lsac.ca or 780-785-3411

***September 7 & 8** – M.D. of Greenview

Quentin Bochar Quentin.Bochar@MDGreenview.ab.ca or 780-524-7615

*AWES is the primary presenter for this course date. Funding provided by other partners.

September 21 & 22 – Vermilion River County

Chris Elder celder@county24.com or 780-853-7844

In addition to these 2-Day Courses, the following 1-Day FREE Workshops are being offered. These workshops are intended to give participants the opportunity to learn hands-on skills in riparian management and restoration.

May 29 – Wetaskiwin/Leduc County 9 am – 3pm *Feature Topic: Planting an Edible Riparian Buffer*

Kim Barkwell kbarkwell@county.wetaskiwin.ab.ca or 780-387-6182

June 4 – Parkland County 10 am – 3pm (doors open 9:30 am) *Feature Topic: Eco-Buffer Planting*

Jennifer Caudron jennifer.caudron@parklandcounty.com or 780-968-8888 ext 8286



Troubled Trout

By Cows and Fish

Westslope Cutthroat Trout (WSCT) are a native trout species of concern in Alberta and are federally listed as *Threatened* under the *Species at Risk Act*. This species thrives in cold, clean rivers and streams and are negatively affected by habitat degradation and loss resulting from many activities on the landscape.

Our project focusing on improving riparian habitat for westslope cutthroat trout (WSCT) began in 2011. Funding has been provided by the Government of Canada's Habitat Stewardship Program, with support from Alberta Environment and Parks and Alberta Conservation Association grants, along with significant contributions from others, in particular the Oldman Watershed Council (OWC).

This year we held the 7th Westslope Cutthroat Trout Stakeholder Workshop! This workshop is designed to bring together those involved with WSCT or land management, so that we can all work collectively to benefit this threatened fish. This year nearly 60 people attended from a wide range of backgrounds, including various levels of government, agricultural producers, members of the public, non-profit and watershed stewardship groups. Information on fisheries management, restoration efforts, updates on recovery planning and implementation, and regulatory items stakeholders should be aware of, was provided.



Photo Credit: Shane Petry

Over the years, Cows and Fish has led, or partnered and participated, in a number of riparian restoration events, to benefit these fish and their habitat. In October, in partnership with OWC and Spray Lake Sawmills, and with the help of volunteers, about 120 live willow stakes were planted on South Racehorse Creek. Supporting the Elbow River Watershed Partnership and the Ghost Watershed Alliance Society, we also helped install live silt fences and willow stakes on Silvester Creek. Prior to that, working with provincial fisheries staff at a stream ford on a tributary to North Lost Creek, we supported 'rough and loose' work to reduce soil compaction and then planted live willow stakes. We also worked alongside OWC and Junior Forest Wardens to install signage at Gold and Green Creeks, to discourage motorized traffic driving through the streams. We have enjoyed working with the many partners over the years, and we look forward to working with more in the future!

Our field staff were also busy this past summer, visiting site locations on Allison, Smith and Dutch Creeks to assess the success of willow planting and other work completed in past years. At these sites, restoration efforts have had variable success, due to ongoing land use impacts, primarily recreation. Nearly 1,800 stakes have been planted and 81% of stakes remain; of these, survival ranges from 52-93%. We look forward to seeing many of these stakes mature to provide shade and deep binding roots that will reduce erosion into these streams.

We hope that with collaborative efforts and the recently announced Public Land Use Zone changes (<http://aep.alberta.ca/recreation-public-use/recreation-on-public-land/public-land-use-zones/>), headwater streams will regain some of their potential to provide high quality native trout habitat.



This project was undertaken with the financial support of the Government of Canada. Ce projet a été réalisé avec l'appui financier du gouvernement du Canada.

Historically, of the 104 watersheds within their native Alberta range, Westslope Cutthroat Trout were believed to be abundant in 71 watersheds.

Unfortunately, as of 2017, Westslope Cutthroat Trout (non-hybridized with Rainbow Trout or other introduced trout) are only found in 31 watersheds and were all assessed as either low or very low abundance of adult fish.

For more info please click image for the link to AEP website



Bringing Practical Wisdom and Science Together: the Cows and Fish Board

Cows and Fish started in 1992 with a seemingly unlikely collaboration to focus on riparian areas and their management. Today, our Board of Directors is comprised of many of the same organizations, with members representing Alberta Beef Producers, Trout Unlimited Canada, Alberta Environment and Parks, Alberta Agriculture and Forestry, Canadian Cattlemen's Association, as well as numerous independent individuals. The expertise, ideas and partnerships that our past and current members provide are integral to our success – we thank them for their contributions.

Current Board Members (and alternates) include Peg Strankman, Devon Sengaus, Garth Johnson, Silvia DAmelio, Fred Calverley, Dave Stepnisky, Craig DeMaere, Ian Dyson, Roger Bryan, Doug Sawyer, Gordy Cunningham, and Lorne Fitch.



Photos: Board members, staff and guests tour Cochrane area sites as part of our Annual General Meeting, hearing about the role we have played at 2 ranches and an urban restoration site.

Upcoming Events

The Original Women's Grazing School, June 12-13, 2018 Two Hills, AB. Topics include everything from pollinators, artificial insemination, calving, stewardship projects and building your own bee box. [Download the poster](#) for more information or contact cross@cowsandfish.org. Online registration: www.grazingschool4women.com.

Riparian Health Assessment & Plant ID Training. Calgary Area (Lotic - Stream) – June 15, 2018. Vermilion Area (Lentic – Lake or Wetland) – July 6, 2018. Need to enhance your riparian health evaluation skills? Looking to improve your plant identification in the field? Register to spend a day with Cows and Fish staff to improve your understanding of riparian ecology and management. [Download the poster](#) to learn more. [Click here to register for the Calgary Area field day.](#) [Click here to register for the Vermilion Area field day.](#)

Livestock Off-site Watering System & Fencing Demonstration. June 28, 2018. Wheatland County, AB.

Demonstrations will cover electric fencing, off-site watering systems & troubleshooting and riparian area health and management. If you are working on a new livestock management project, this workshop will provide you with loads of information. [Register online now.](#)

Southern Alberta Grazing School for Women. July 24 & 25, 2018. Stavelly, AB. Topics for the 2018 grazing school include, grazing principles and practices, electric fencing, verified sustainable beef program, range and riparian health, plant identification, and ranching women. [Download the poster](#) for more information or [view the brochure.](#) [Click here to register online o](#)

Looking for a presentation at your local event or workshop? With a few exceptions, when we host our own events, most of the extension and outreach we do is at the request of local communities and partners, so give us a call or email a Riparian Specialist near you. <http://cowsandfish.org/contact.html>. Many of the areas of expertise we speak on are described on our website <http://cowsandfish.org/about/workshops.html>



Watch for our new redesigned website, coming soon!

Forage Report Update

Cows and Fish has focused on building new tools and gathering the science to help in practical decision making. That has included our work examining the forage productivity of riparian areas. Riparian areas generally make up a small component of the overall grazing area that livestock producers use, but these areas are generally more productive than the surrounding uplands, due to extra moisture and deep, rich soils. Riparian areas may be very productive but they are also susceptible to overuse, because livestock often favour these areas. So how can we factor them into our grazing management choices? One way is to better understand the forage base that is supporting livestock grazing. We recently did some additional analyses and will be releasing a new report soon from work done many years ago and thought we would share some of the results to get you thinking about forage production and riparian management.

Forage production data was collected during 2003-2007 and categorized as grass (or grass-like), forb (broad-leaved herbaceous), and shrub production. Forage production cages were placed at riparian and upland sites across the Central Parkland, Northern Fescue, Foothills Fescue, and Dry Mixed and Mixed Grass sub-regions. Riparian areas were consistently higher in primary productivity than upland sites, likely due to water proximity, resulting in high soil moisture. Across sub-regions, Central Parkland sites were the most productive while Dry Mixedgrass were lowest. The data also shed light on productivity during extreme weather events. Litter and primary productivity were substantially reduced during flood years, but rebounded the following growing season. During dry summers, production of both riparian and upland sites declined, but reductions were less for riparian sites than uplands. This disparity speaks to the need for adaptive management when the grazing land base includes both riparian and upland types.

While upland stocking rates are based on decades of data collected in areas with well documented management and local weather conditions, riparian community stocking rate guidelines are not yet available. Riparian areas stocking rate guides will require decades more data, and are difficult to develop physically-based classifications for, as is done for the 'ecological site' type of upland range health. Although riparian production is generally higher than upland plant communities, it does not mean grazing can be more intense. The same soil moisture that drives higher productivity also makes these areas more vulnerable to compaction by wildlife and cattle or other livestock. Riparian communities with a substantial shrub component may have a resilient grass species in the understory but utilizing the grass to its full potential puts valuable, soil stabilizing woody species at risk due to extra browse pressure, unless carefully managed. We continue to recommend keeping in mind periods of vulnerability when planning grazing (early spring when soils are moist and soft, and late season use, when grasses go dormant) to maintain or improve riparian health and continue to support the functions they provide: cleaning our water, storing and releasing water, providing habitat, storing carbon, and reducing energy and erosion.



Left: A range cage to measure forage productivity and restrict grazing.

Right: Fresh sediment deposits from floods provide a new substrate for growth the following year, and therefore higher forage productivity.



Environmental Farm Plans

Over the years, many agricultural producers have completed Environmental Farm Plans (EFP), to identify risk, and opportunities, for environmental concerns, covering everything from their homes and yards, to crop and pasture fields, to chemical handling. Riparian health and management is included in many aspects of these self-evaluation and now, with a new federal-provincial cost-share funding program, producers have to ensure their EFP is in place to access funding.

Paul Watson, the Director of EFPs in Alberta says "A current environmental farm plan will be required for Canadian Agriculture Partnership (CAP) stewardship funding. For an EFP to be considered current, it must be dated within 10 years of the date of CAP application. The CAP program will accept applications without a current EFP but will not disburse payment until after the completion of the EFP. For more information on the renewal period, [click here](#). To register to start an EFP [click here](#). To get contact information for Alberta EFP staff, [click here](#)."

Cows, Fish and Sustainability: The CRSB

By Andrea White (CRSB)

The Canadian Roundtable for Sustainable Beef (CRSB) was established in 2014 as a collaborative, multi-stakeholder initiative to advance sustainability in the beef industry. It has three pillars of work: Sustainability Benchmarking, the Certified Sustainable Beef Framework, and Sustainability Projects. The CRSB has 105 members across the beef value chain and beyond, including environmental, conservation and animal groups such as Cows and Fish.

In 2016, the first National Beef Sustainability Assessment and Strategy was released, which provided a baseline, comprehensive farm-to-fork analysis of the Canadian beef industry from environmental, social and economic perspectives. It showed where the industry is doing well, and identified areas for improvement. The Sustainability Strategy outlines key goals and objectives for continuous improvement that will be evaluated in future assessments, planned every five to seven years. Key environmental goals of interest to Cows & Fish include: (i) Enhancing ecosystem services and biodiversity on lands managed by beef producers, and (ii) Enhancing riparian health and reducing the water footprint of beef production.

Visit our website for the summary report, factsheets, info-graphics and more at www.crsb.ca/sustainability-benchmarking.



The CRSB's *Certified Sustainable Beef Framework* was launched in December 2017 following two years of development by CRSB stakeholders. It provides a tool for producers and processors to demonstrate sustainable practices, supports the retail & foodservice industry to meet sustainable sourcing commitments, and enables consumers to purchase beef sourced from certified producers and processors. The foundation of the Framework includes standards for beef production and beef processing, with indicators covering all five Principles of beef sustainability as defined by the Global Roundtable for Sustainable Beef (GRSB): Natural Resources, People & Community, Animal Health & Welfare, Food, and Efficiency & Innovation. Assurance protocols, chain of custody requirements and claims round out the Framework. CRSB appreciated the contribution by its members in the development of the Framework; Cows and Fish participated in the Verification Committee, which guided the development of the certification process, assisted in delivering auditor training for the Natural Resources indicators, and provided valuable subject matter expertise throughout development. For more information, visit www.CRSBcertifiedsustainablebeef.ca.

Guided by the Beef Sustainability Strategy, CRSB's third pillar of work, Sustainability Projects allows CRSB to partner and collaborate with its members and other organizations, such as Cows and Fish, in projects that advance sustainability in specific areas. Cows and Fish is a valued member of the CRSB, and we appreciate your engagement in our work towards continuous improvement in the Canadian beef industry.

For more information, visit www.crsb.ca, follow us on Twitter @CRSB_beef, or email us at info@crsb.ca.

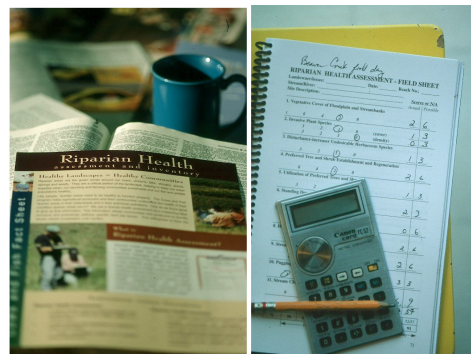


More on Our Evaluation Results: Management changes

Our work with landowners has led to many management changes: 63% of landowners had made a practice change as a result of contact with us and for those with extensive amount of contact, it was even higher - 98% made a change. The most common management types mentioned were changing grazing practices, using off-site watering, and changing fencing to control livestock access. Weed or plant species management and plantings were also mentioned numerous times.

Some types of interaction with Cows and Fish are more useful than others: in-person interactions, hands-on field activities, presentations, and individual riparian health reports were very useful in helping make a decision to change management – meaning we need to emphasise these opportunities in our work, including when planning with partners.

For more details, see page 1 of the newsletter.



Fishy Fact

Alberta is home to a diverse array of game or sportfish. Of the 65 species of fish found in Alberta waters, 17 are sportfish. Each species has its own distinguishing characteristics and knowing those traits is key to understanding the regulations outlined in the [Alberta Guide to Sportfishing Regulations](#).

Test your knowledge of Alberta's cold-water game fish species on a new [Fish ID Quiz](#) developed by the Northern Lights Fly Fishers.

Original development of our newsletter was graciously supported by Alberta Ecotrust Foundation, along with our many core funders and supporters: (<http://cowsandfish.org/about/members.html>).

As you may know, we rely upon grants to do much of the work we do, so if you want to suggest an opportunity, collaboration, or make a donation, please do!

Please sign up for our

Donate Now

newsletter if you have not already done so:

We'd love to get your feedback and equally importantly, we hope you'll share this with your friends and colleagues.



We love hearing from you!

Please contact Norine Ambrose nambrose@cowsandfish.org to follow up on any items in this newsletter.

For full contact information, visit our website at:
<http://cowsandfish.org/contact.html>

Cows and Fish

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