Our Water – Our Legacy

The Meander

THE MILK RIVER WATERSHED COUNCIL CANADA ▪ SPRING/SUMMER 2021

St Mary Diversion and Canal near Babb MT

Water Supply report

Brian Hills,
Alberta Environment and Parks

On June 9th, Alberta Environment and Parks received the provisional apportionment numbers for the month of May for the Milk and St. Mary rivers from the U.S. Field Representative to the IJC Accredited Officers. The provisional reported numbers show that the U.S. did not create a deficit during either of the two reporting periods in May (May 1st to 15 and May 16 to 31st) on the St. Mary River that would need to be owed to Canada (Alberta), as allowed for under the 2001 Letter of Intent. Similarly, no deficit was created earlier in the spring.

Without a deficit on the St. Mary River, there is increased uncertainty around how long water for irrigation will be available for use from the Milk River in Alberta this summer, since at this time there is no deficit in water that can be used to offset Milk River consumptive use during June, July and August. It is during this period when Alberta consumptive use frequently exceeds the available natural flow (25% for Canada as measured at the Eastern Crossing of the Milk River) that we are entitled to under the Boundary Waters Treaty. Note that with the St. Mary Diversion Canal operating, very little of the water in the river is actually natural flow.

The IJC Accredited Officers and their Field Representatives are scheduled to hold a call on June 23rd, which representatives from Environment and Parks will be attending. At that time, they will review the apportionment numbers up to the end of the first reporting period in June (June 15th) and discuss the implications of the lack of deficit and what alternatives there may be to minimize the impacts to irrigators on both sides of the border, while respecting the obligations of the Boundary Waters Treaty.

It is expected that the IJC will begin engagement with stakeholders in the Milk River watershed later in 2021 or early 2022 on their study of procedural changes and structural options to increase both the U.S. and Canada's access to water over the longer term.

Water Supply Forecast, Recreational Use

USBR projects for water diversion from the St Mary's River basin into the Milk River are anticipated to stay at or near 600cfs through the coming months until early September. Unfortunately, the long-range forecasts are not favorable with drought like conditions rapidly forming in North Central Montana. This maybe a good opportunity for restless recreational users to use the river and hopefully provide a boost in tourism to our local economy. Along with increased recreation unfortunately comes incidents of trespass along lease and private lands. The MRWCC will continue to provide regular updates available to recreational users throughout the season and increase presence at local access points with watershed and safety information available to users. Visit our website at www.mrwcc.ca for regular updates.

Canoeing the Milk near North Fork and South Fork confluence

Milk River Watershed Council Canada Surface Water Quality Data Now Available Online on DataStream

We are pleased to let the public know that the MRWCC surface water quality data can now be viewed and downloaded on DataStream, an open-access platform for water quality data, with the aim of promoting knowledge sharing and advancing collaborative water stewardship. You can view the data at https://doi.org/10.25976/33tj-bs38

Surface water quality monitoring is critical in determining if water quality is meeting the needs of the aquatic environment and requirements for human and livestock use. Water monitoring is also a critical component in watershed management and often is an accurate indicator of adjacent land use and management. The program measures water quality in three main parameters:

- Physical (e.g., dissolved oxygen, water temperature and total suspended solids)
- Chemical (e.g., nutrients, metals, pesticides)
- Biological (e.g., bacteria)The MRWCC has partnered with Alberta Environment and Parks, and the Counties of Warner, Cardston, and Cypress to conduct a water monitoring program on the Milk River and its tributaries since 2006.

Each year, sampling starts in April and completed in October. Long term monitoring is essential as data is analyzed to detect changes or trends in water sample results. In the event that the findings of the water quality fall below the established guidelines because of human activities, the MRWCC works to implement reasonable and practical measures to improve the instream water quality.

The full summary of baseline water quality sampling is reported in the 2nd Edition Milk River Transboundary State of the Watershed Report and can be accessed at: www.mrwcc.ca

MRWCC annual water monitoring reports can be accessed at: http://www.mrwcc.ca/index.php/projects/water-quality-monitoring/

Across Canada, communities and researchers are gathering important information about local watersheds – but too often data is managed in ways that makes collaboration difficult and expensive. DataStream provides a digital backbone for diverse monitoring groups like us to access, visualize, and download full water quality datasets.

By bringing water data together in one place, DataStream provides a clearer picture of freshwater health and a stronger foundation for making informed decisions.

DataStream was developed by The Gordon Foundation at the national level and is carried out in collaboration with regional monitoring networks.

The MRWCC wishes to thank Mary Kruk, Water Data Specialist with The Gordon Foundation for making it possible to incorporate our data on DataStream and for training the MRWCC staff to upload their data on DataStream.

Water wise Xeriscape garden at the Milk River Town Hall. Did you know residents reduced their water usage by over 50% during the diversion failure in 2020!?

Milk River Water Contingency Plan for Water Shortage Periods

The Milk River Watershed Council Canada was successful in obtaining funding from Alberta Ecotrust Foundation to produce a work plan that will form the main component of a project focusing on keeping the community informed of the complexities of the Milk River and how to achieve maximum water conservation during water shortage periods.

The project team will review actions that occurred, and the lessons learned from the 2020 water shortage experience and develop a comprehensive contingency plan for future shortage events such as diversion infrastructure failure or droughts.

The Consultant will be responsible for reviewing recent water management challenges (2015 to 2020) with area water managers, elected officials, producers, and community leaders. A final plan that can be used as a future guide to manage water shortage periods will incorporate the following themes:

- Communication protocol
- Draft water sharing agreements for Irrigators
- In-stream flow needs
- Water use reporting templates
- Municipal water backup plans
- Community bulk water fill stations
- Water monitoring needs assessment
- Regulatory Requirements under the Water Act
- Accredited Officers procedures for the division of the waters of the St. Mary and Milk rivers
- Municipal water restriction policies and bylaws

Watch for opportunities to provide your feedback over the coming months!

Using satellite imagery to estimate consumptive water use from irrigation in the Milk River Basin, United States and Canada

Project overview

The U.S. Geological Survey, with the support of the International Joint Commission, and in cooperation with Alberta Environment and Parks, Blackfeet Nation, Environment and Climate Change Canada, and Montana Department of Natural Resources and Conservation, began a project in 2018 that will improve information available to apportion water between Canada and the United States in the St. Mary and Milk River Basins. One component of the water budget, consumptive use of irrigation water (the amount of water used by crops), can be estimated at 100-meter resolution almost every week using imagery recorded by satellites from 1985 to present and weather data, when conditions permit. Better estimates of consumptive water use will improve understanding of water availability and use in the basin and assist with water apportionment procedures. (Important note: this project is not an examination of water rights or licences.)

Milk River Basin project timeline and goals:

Phase 1 - completed in 2020, focused on obtaining and preparing the input datasets required for the consumptive water-use estimates.

Phase 2 - will be completed in the springs and summers of 2021 and 2022, when on-the-ground data associated with irrigated lands in the Milk River Basin will be collected. This data will be used to improve and verify the consumptive-use estimates.

Phase 3 - will begin in 2023 and will focus on running and optimizing the energy balance model for the upper Milk River Basin. An easy-to-use Web Application will be developed for anyone to be able to obtain and visualize current and historical consumptive-use data in the basin.

Irrigation of perennial forages near Milk River AB. Irrigation plays a critical roll in offsetting forage production for extensive cow-calf operators across the watershed. Reliable forage allows for improved rest and rotation of native grasslands critical for wildlife and biodiversity.

Expected outcomes

- A historical database of consumptive water uses in the St. Mary and Milk River Basins.
- Bi-weekly or monthly estimates of current consumptive water use using the newly expanded energy balance model.
- An online, interactive Web Application using historical database and bi-weekly or monthly estimates will allow irrigators, resource managers, and the general public to visualize and compare current and historic conditions in the basin.

For more information contact:

Roy Sando, Physical Scientist

USGS Wyoming-Montana Water Science Center

(406-457-5953; tsando@usgs.gov)

USGS science for a changing world | Alberta Government | Montana DNRC | International Joint Commission | Environment and Climate Change Canada | Environnement et Changement climatique Canada

From The Field – Virtual Field Trips project!

'From the Field' – Virtual field trip educational series project allows for the development of curriculum linked grade 8-12 in classroom virtual fieldtrips with wildlife researchers, habitat managers, and cow-calf farmers/ ranchers that are responsible for sustainable management of land, water, and biodiversity in southern Alberta.

Funding from ACA will provide for the development of two From the Field Modules directly highlighting stewardship of habitat and access to important fish and wildlife resources. The modules will include a teacher's delivery package with classroom activities, supporting videos developed, scripted, and captured on site in the field with related producers and technical experts. Options will also be provided to have a live meeting with land managers and technical experts as a follow up activity.

Alberta Conservation Association – Conserving Alberta's Wild Side

Watch for more project updates over the coming months! Teachers can feel free to reach out to the MRWCC staff to provide feedback or express interest in piloting the virtual field trip experiences!

High School group visiting from Calgary learning about irrigation, the Milk River watershed, and landowners roles in stewardship.

THANK YOU

TO OUR SPRING ONLINE AUCTION SPONSORS!

The MRWCC is a not-for-profit, charitable organization. Your donation supports community-driven watershed stewardship initiatives. Individual and corporate donations are essential to leverage project funding from other funders. The MRWCC is committed to ensure your donation is used efficiently, supporting watershed planning, monitoring, and stewardship within our community. Because of your generosity the Council was able to raise over $5,000. Thank you once again!
Thanks to everyone who supported the online auction by purchasing items.

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- Raymond Baril
- Keith Skippen

Please note that the MRWCC will start accepting donations for our next online auction. If you would like to donate an item, please contact us at 403-647-3808

We thank you for your generosity!

Milk River Watershed Council Canada
240 Main Street, Box 313,
Milk River, AB, T0K 1M0
www.mrwcc.ca

Watershed Resiliency and Restoration (WRRP) Program

WRRP Phase 2 now complete, thank you to all our producer cooperators! With financial support from Alberta Environment and Parks; The MRWCC has been working directly with producers and municipal partners to identify projects and cooperators along the Milk River and its western tributaries. This funding has allowed the MRWCC to assist area producers with projects that make their operations more efficient, both reducing impact on sensitive riparian areas and reducing reliance on the Milk River for livestock water during critical low flow winter months or during periods of prolonged drought. The program wrapped up in 2021 with producers noting the significant value of being drought and low flow ready. Producers with fencing projects or flexible rotations were able to take advantage of pastures adjacent to the Milk River even during the diversion failure and provide growing season rest when needed without relying on the water for fencing needs. In total, 15 Producer projects were completed across the watershed, on the Milk River and key tributary locations supporting drought management, riparian restoration, and improving resilience. Over $135,762.00 was directly invested into producer resiliency projects paying for fencing, solar watering, and electric fencing projects. In addition, over $107,754.00 producer dollar contributions and in-kind project support was invested into the projects. This work and material cost were sourced and invested into community businesses that made the projects possible. In total, these projects resulted in the direct improvement of management of 2000 Head of Livestock and impacted the management of 31.95km of the Milk River and key tributaries. Approximately 170.1 acres across three counties is now improved within riparian exclusion or active restoration with the planting of trees and shrubs for wildlife habitat, bank stabilization, or mitigation. Long term improvements do not happen over single years, but many of the sites have already improved management for producers and resulted in tangible environmental improvements such as reduced bare ground and trailing, and improved recruitment of favorable trees and shrubs.

Thank You

to Our 2020/21 Funders!

We wish to thank 2021/22 funders, volunteers and in-kind supporters. We have accomplished a lot with your valuable support. Without your support much of the accomplishments would not be possible.

A big thank you goes to our main funder Alberta Environment and Park.

Thank you to all our in-kind supporters:

- Lethbridge College
- Town of Milk River
- Alberta Health Services
- County of Forty Mile
- County of Warner
- Cypress County
- Government of Canada
- Village of Coutts
- Cardston County
- Trace Association
- Ducks Unlimited
- Alberta Conservation Association
- University of Alberta
- Colynn Kerr

Congratulations to Erle Rivers Students!

The MRWCC wishes to congratulate the following Erle Rivers High School students for making the 2021 Caring for Our Watersheds Finalists:

Emily Thompson

Jorja Garber

Eve Dietrich

Kimberly Court

We wish to also thank their teacher Mrs. Karen Ellert Garber for her part in teaching and mentoring the students to success!

Caring for Our Watersheds challenges students in grades 7–12 to submit a proposal answering the question, "What can you do to improve your watershed?" Hundreds of students from all across Southern Alberta researched their watersheds, identified environmental concerns in their communities, and developed realistic solutions. Contest judges from local watershed councils and environmental organizations reviewed these proposals and selected the top ten submissions. The program supports watershed stewardship and environmental action, and offers participating students and teachers with opportunities to benefit their communities with project-based learning.

For more information, please visit https://caringforourwatersheds.com/canada/southern-alberta/

CONGRATULATIONS TO ALL THE 2021 CARING FOR OUR WATERSHEDS FINALISTS!

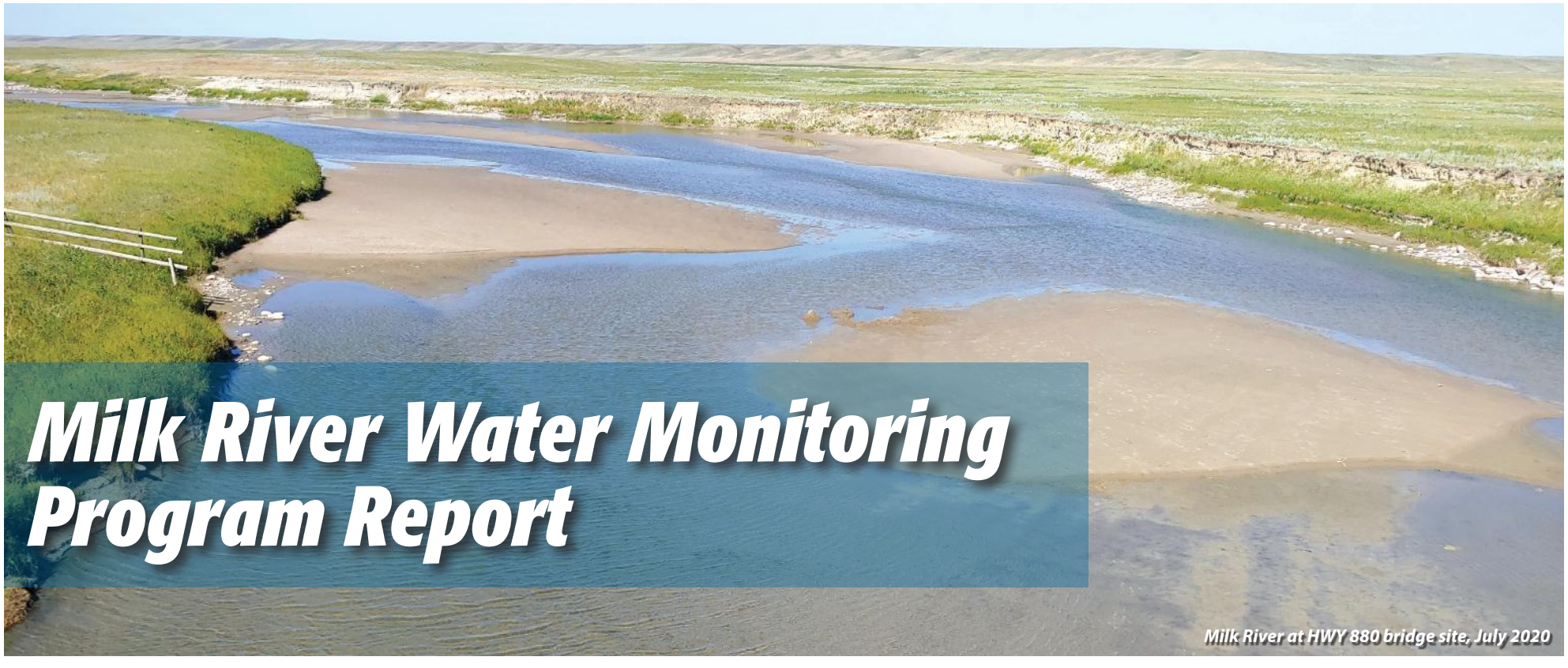
Caring for Our Watersheds challenges students in grades 7–12 to submit a proposal answering the question, "What can you do to improve your watershed?" Hundreds of students from all across Southern Alberta researched their watersheds, identified environmental concerns in their communities, and developed realistic solutions. Contest judges from local watershed councils and environmental organizations reviewed these proposals and selected the top ten submissions. The program supports watershed stewardship and environmental action, and offers participating students and teachers with opportunities to benefit their communities with project-based learning.

These students are Southern Alberta's 2021 *Caring for Our Watersheds* finalists who developed creative, feasible, and impactful projects. Over $13,000 was awarded to the finalists and participating schools, and $10,000 in implementation funding is available for all participants to apply for. Each of the top ten projects has great potential to make positive and meaningful change to their communities and watersheds, and we look forward to supporting students in turning their environmental solutions into a reality.

2021 Caring for Our Watersheds - Southern Alberta Final Results

Place	Award	Students	Project	School
1st	$1,000	Will Borbridge	Fast-Growing Mini Forests	St. James School *Bill Robinson*
2nd	$900	Harper Ogden Jane Harris Liv Johnson	Phosphorus Filters for Our Watershed	Magrath Jr. Sr. High School *Jared Leavitt*
3rd	$800	Jessica Hardy Sage Vadnais Zoee Litchfield	Mountain Bluebirds	Cardston Junior High School *Mark Olsen*
4th	$700	Emily Thompson Jorja Garber Eve Dietrich	Plastic is No Picnic	Erle Rivers High School *Karen Ellert Garber*
5th	$600	Diego Diaz-Meneses	Save a Toy, Plant a Tree	St. James School *Bill Robinson*
6th	$500	Braden Nish Benjamin Van Bruggen	Fixing the Pothole Creek	Magrath Jr. Sr. High School *Jared Leavitt*
7th	$450	Zheeno Yousifshahi Denai Taylor Ben Calder Isla Shaw	Growing Food with Less Water	Vincent Massey School *Carter Cox*
8th	$400	Sophie Metheral	The Little Chompers	R.I. Baker Middle School *Charlotte Hardy*
9th	$350	Kymberly Court	Break Out Your Batteries and Trim Off Your Tires	Erle Rivers High School *Karen Ellert Garber*
10th	$300	Mayson Richards Nathaniel Simard	Let's Get Composting!	Foothills Composite High School *Minaz Janmohamed*
Honourable Mention		Kate McCollister Abigail Munton	Reducing Salt Content	Trinity Christian School *Michelle Duimel*
Honourable Mention		Julie Bonnal Amanda Coates	Trash Into Art for the Environment	Calgary French & International School *Chantalle Bourque*
Honourable Mention		Melody Oidi	Reusing Water to Save Water	Joane Cardinal-Schubert High School *Jessica Sung*

CARING FOR OUR Watersheds® Southern Alberta



Milk River Water Monitoring Program Report

Milk River at HWY 880 bridge site, July 2020

Submitted by:
Palliser Environmental Services Ltd.

The Milk River is the most southern major river system in Alberta and the only river in the province that flows to the Gulf of Mexico. The headwaters of the Milk River originate in Montana and flows eastward through Alberta for about 288 km. The Milk River Watershed Council Canada (MRWCC) has monitored the Milk River and some of its tributaries since 2006. The following report is a compilation of water monitoring data collected in 2020, with reference to the results from the previous three years (i.e., 2017-2019).

Comparisons of select water quality indicators are made to Water Quality Objectives for the Milk River that were established in the Milk River Integrated Watershed Management Plan (PESL 2015), and to relevant provincial guidelines (GoA 2018).

Select Water Quality Indicators

Dissolved Oxygen is vital to freshwater organisms. Oxygen is soluble in water and the solubility increases with decreasing water temperature (i.e., cold water holds more oxygen). Oxygen enters the water directly from the atmosphere or by aquatic plant/algae photosynthesis. Oxygen is removed by the respiration of animals and plants and by organic decomposition.

Specific Conductivity is the measure of minerals (e.g., sodium, chloride, magnesium, potassium) dissolved in the water (total dissolved solids), or the salinity.

pH is a logarithmic scale based on the Hydrogen Ion concentration by which water and other substances are measured to determine if they are acidic, neutral or alkaline. The midpoint of the scale is pH 7.0 and is neutral.

Phosphorus is an essential nutrient required for plant growth. Excessive nutrients in water can cause eutrophic conditions with increased algae and weed growth.

Nitrogen is an essential nutrient required for plant growth.

Total Suspended Solids Total suspended solids (TSS) is a measure of the suspended particles such as silt, clay, organic matter, plankton and microscopic organisms that are held in suspension in water. Suspended solids can transport nutrients and contaminants downstream and may be aesthetically undesirable.

Fecal Coliform Bacteria Fecal coliform bacteria are specific to the intestinal tracts of warm-blooded animals (e.g., cattle, birds, pets etc.) and humans and are thus a more specific test for animal waste or sewage contamination.

2020 Water Monitoring Results

Weather and Streamflow

In 2020, total precipitation (April to October) in the Milk River watershed ranged from 232.3 mm at Onefour to 294.3 mm at the Town of Milk River. June was the wettest month (mean = 85.1 mm) and August was the driest month (mean = 6.3 mm).

The mainstem of the Milk River is prairie fed stream and is often referred to as the South Fork of the Milk River. Flows in the North Fork of the Milk River are augmented annually by water from the St. Mary River (i.e., the St. Mary River Diversion) as part of the 1909 Boundary Waters Treaty. In a typical year, the St. Mary River Diversion has an overwhelming impact on streamflows in the North Fork Milk River and downstream of the confluence with the South Fork Milk River during the open water season compared to contributions from precipitation and runoff events.

In 2020, the streamflow regime at the three Milk River sites augmented by diversion water was substantially different compared to previous years (Figures 1). In 2020, the Milk River experienced natural flow conditions for most of the growing season for the first time in over 100 years. Due to a structural failure of Drop Structure 5 in Montana, there was no diversion (0.0 m3/s) to the Milk River while the Drop Structure was replaced. The diversion only occurred from March 31 to May 16 and from October 8 to 31. The Milk River did not receive any augmented flows from May 17 to October 7 when the majority of the diversion would occur in a typical year during the irrigation season (Figure 1).

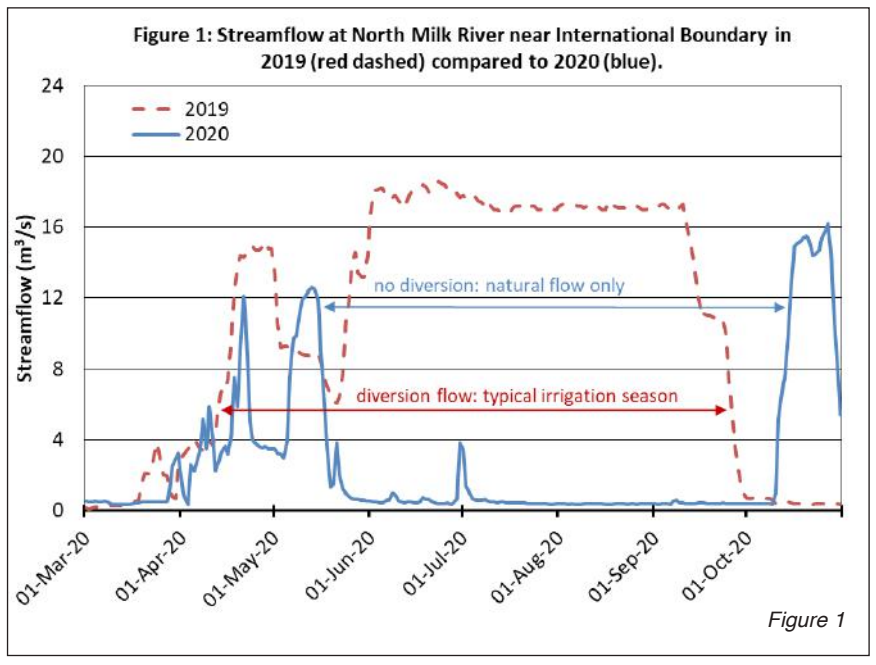


Figure 1

Milk River

The lack of St. Mary River water in the Milk River during the open water season had a significant impact on water supplies in Alberta, and also altered some trends in water quality in 2020 for select indicators. The following summarizes a few highlights observed in 2020:

- Dissolved oxygen and pH continued to meet protection of aquatic life guidelines at all sites in 2020
- Conductivity was higher than typical years, and exceeded objectives at sites that typically meet objectives during the natural flow period (i.e., Hwy 880) and during the diversion period (i.e., U/S Milk River and HWY 880 site). Natural flows tend to have higher conductivity values compared to diversion flows. Natural flows are influenced by area groundwater when it surfaces in the form of springs. Regional groundwater tends to be high in dissolved salts that contribute to higher conductivity during natural flow periods.
- Total phosphorus generally does not consistently meet water quality objectives at lower reach sites U/S Milk River and Hwy 880 sites during the natural or diversion flow periods. These two sites met all natural flow objectives, except at the Hwy 880 site where total phosphorus was in the cautionary range. During typical diversion periods, the North Fork at 501 generally meets total phosphorus objectives. However, in 2020 total phosphorus at this site exceeded objectives The magnitude of the exceedance is of interest as total phosphorus concentrations were 4.7 times to 11.2 times greater than objectives. While the magnitude of exceendance may reflect poorer water quality during spring runoff, it may also reflect the ramping of the diversion flows which occurred twice in one year (i.e., spring and fall) in 2020, opposed to just once at the start of the season.
- There were no exceedances of total nitrogen objectives during natural flow at any site in 2020. However, during the diversion period, compliance with total nitrogen objectives was the lowest of the four monitoring years. Similar to total phosphorus trends in 2020, the total nitrogen objectives were not met at the North Fork at 501 and U/S Milk River sites. Again, the magnitude of the exceedance in relationship to the objectives was larger than typical.
- Compliance with total suspended solids (TSS) objectives was the second lowest in 2020 at the Milk River sites. The highest TSS concentrations occurred during spring under diversion flow. During the diversion period at the North Fork at 501 site, the magnitude of exceedance of the objectives ranged from 2.4 times to 8.3 times. TSS concentrations generally met objectives during the natural flow period at all sites in 2020, whereas in a typical flow year with diversion water TSS tends to exceed objectives during the natural flow period.
- In 2020, compliance with fecal coliform bacteria objectives was the lowest at the Milk River sites compared to the previous several years. Low natural flow conditions (and consequently no dilution) and warm water temperatures may have contributed to the higher fecal coliform bacteria counts observed.

Red Creek

Only the downstream Red Creek site was sampled in 2020. MRWCC is working on a historical summary of all Red Creek WQ data which will be available this fall. Thank you to the landowners for their continued stewardship and support of the monitoring program.• All dissolved oxygen and pH measurements complied with aquatic life guidelines. At this site:

- The median conductivity (2,700 µS/cm) did not meet safe irrigation guideline in 2020 and the water would be considered unsuitable for irrigation.
- The median total phosphorus concentration was 0.006 mg/L, the lowest concentration within the last four monitoring years.
- The median total suspended solids (TSS) concentration (4.3 mg/L) was low in 2020 and similar to previous years. No TSS trends are apparent from 2017 to 2020 at this site.
- The median fecal coliform bacteria count (20 cfu/100mL) met the irrigation guideline in 2020 and was the lowest compared to the previous three years.

Eastern Tributaries

- No samples were collected at Lodge Creek, Middle Creek or Battle Creek in 2020 due to Covid-19 sampling restrictions.

Ephemeral Tributaries

No samples were collected at Verdigris Coulee in 2020, and two samples were collected at Miners Coulee (June 23 and July 21). At Miners Coulee:

- Dissolved oxygen concentrations met aquatic guidelines in June, but the July sample did not meet the acute guideline for protection of aquatic life.
- pH met the aquatic life guideline and conductivity met the objective for safe irrigation in both samples.
- Total phosphorus concentrations were moderately high (0.061 and 0.072 mg/L).
- Total suspended solids concentrations were generally low (2.2 and 4.8 mg/L).
- High fecal coliform bacteria counts were observed (900 and 1,091 cfu/100 mL) and these did not meet the irrigation guideline (≤100 cfu/100 mL).

WPAC-Municipal STUDY RESULTS

The WPAC-Municipal study outlined in the last Meander newsletter has been completed and study results are available. The study was headed by Dr. Lorraine Nicol of the University of Lethbridge and sought to evaluate the effectiveness of the relationship between WPACs and municipalities. Dr. Nicol and research partner, Dr. Chris Nicol, collaborated with four WPACs – the Milk River Watershed Council Canada, Oldman Watershed Council, North Saskatchewan Watershed Alliance and the Battle River Watershed Alliance. The study involved an on-line survey distributed to key individuals in city, town and rural municipal governments within the four watersheds.

Specific study findings include:

- there are relatively high levels of municipal awareness of WPACs and their work, ranging from 100% of respondents to 94%, depending on the WPAC
- there are relatively high levels of support for WPACs and their work, ranging from 100% of respondents to 80% of respondents, depending on the WPAC
- the greatest benefit of working with a WPAC is increasing knowledge, awareness, education, expertise, and information
- WPACs' impact on informing decision-making and statutory document development varies from a high of 69% of respondents affirming an impact to 41%, depending on the WPAC
- the impact on municipalities of WPAC planning exercises varies from a high of 72% of respondents affirming an impact to a low of 13% of respondents, depending on the WPAC and the exercise
- the greatest challenge of working with WPACs is making connections, engaging, and communicating
- of the four WPACs, the MRWCC is one of the most effective watershed councils in communicating and engaging with municipalities in its watershed. However, the study recommends certain other WPACs extend their reach to municipalities and increase engagement through greater use of presentations (including virtual) and e-mail communications.

The study was funded by a grant awarded by the Alberta Real Estate Foundation. The full study report can be found on the MRWCC website at http://www.mrwcc.ca/index.php/projects/wpac-municipal-study/

Board of Director's Corner!

Meet the 2021/2022 Board Members

The Milk River Watershed Council Canada is a broad partnership of interested and informed people living and working in the Milk River Watershed who provide leadership in watershed management and planning. Currently, the Council consists of sixteen Board Members, three alternate Board Members and two vacant seats. Directors are elected for a two-year term by MRWCC members.

The MRWCC is pleased to present the following 2021 elected Board Members:

Back row, standing (Left to Right): Ross Ford, Ben Ellert, William King, Joan Hughson, Suzanne Liebelt, Brian Hills, Darcy Wills, Scott MacCumber, Lorraine Nicol, Aaron Domes, and Ed Sloboda
Front row, seated (Executive Board Members): Warren Cunningham (Secretary), Will Lindeman (Treasurer), Ron McNeil (Vice Chairman), and John Ross (Chairman)
Missing: Ken Miller, Kristen Dykstra, and Ken Brown

Dr. Benjamin H. Ellert - Federal Government

Dr. Benjamin H. Ellert is a Research Scientist in Biogeochemistry with the Agriculture and Agri-Food Canada Research Centre in Lethbridge, Alberta. He studies carbon and nitrogen cycling in both cropland and rangeland ecosystems. He has expertise in quantifying soil carbon and nitrogen stocks, in investigating greenhouse gas emissions from soils, and in applying isotopic techniques to study the biogeochemistry of agricultural systems. He obtained a Ph. D. in Soil Science from the University Saskatchewan, and was raised on a small mixed farm near Milk River.

William King – Individual Member

Five generations ago, William's Grandfather came to the Aden area before Alberta was a province. He started farming and ranching in 1965 until 2011 when he moved into the Town of Milk River.

William has been a member of numerous groups including: The local Fish and Game Club since its inception and has received a lifetime membership award for over 40 years of service. He is also a founding member of the Grain Agricultural Society in 1973 where he served as president three times over the years. He is a founding member of the Border Surface Rights established in 1981. William also helped with the compilation of the Milk River Natural Areas and Kennedy Coulee Ecological Reserve Management Plan which commenced in 1990 to present time. He is a member of the Wildlife and Nature Photography. Some of Williams's photographs are featured in the 2nd Edition Milk River Transboundary State of the Watershed Report. William loves the area and brings a worthy of knowledge and history of the Milk River watershed to the Board.

Suzanne Liebelt – Town/Village/Hamlet (Urban Municipality)

Suzanne was born and raised in Lethbridge Alberta. She moved to Milk River in 1991 where she got married and has since raised 2 boys. Suzanne and her husband own a business and have been active members of the Milk River Community Business Association since 2005. Suzanne was elected to council for the Town of Milk River in October 2013, and has been the town representative on the Milk River Watershed Council Canada for that period. She has enjoyed acquiring knowledge on watershed management and looks forward to learning more about the watershed and how it affects an affected by the community.

Dr. Lorraine Nicol - Academia

Dr. Lorraine Nicol originates from tiny Marquis, Saskatchewan where she grew up on a grain and cattle farm. She holds a Doctorate in Biosystems and Biodiversity, a Master's Degree in Agriculture, and a Master's Degree in Economics. She has worked for a diverse number of federal and provincial government departments including the Economic Council of Canada, Human Resources Development Canada, Saskatchewan Finance, and the Saskatchewan Public Service Commission. She and her husband Chris and their three (now grown) children moved to Lethbridge in 2001. At that time Dr. Nicol developed an interest in water resources policy and management in Alberta and has worked in this field ever since. A significant amount of her research has focused on studying irrigation water management. The Nicol family has a passion for competitive swimming with Dr. Nicol playing a voluntary role as president and board member of the L.A. Swim Club for many years. Dr. Nicol began serving on the MRWCC Board of Directors in 2008.

Ken Brown - Recreation

Ken was born and raised in the mountains of beautiful British Columbia.

After graduating from High School, he worked for several different mining companies throughout northern British Columbia before deciding that studying and learning might be easier than the shovel he was used to, so he enrolled at Simon Fraser University as one of its Charter students and graduated with a Bachelor of Arts degree in 1969.

He met and marries his wife beautiful Wendy and moved to Alberta. Ken and Wendy celebrated their 50th wedding anniversary in the summer of 2020.

He learned a lot about the Milk River and its history as he canoed and hiked up and down various sections of the river with his guide and local historian, Alva Bair.

Ken and Wendy bought their Raft Tours Company and began offering guided Raft tours along the Milk River and have expanded their efforts by including canoe, stand up paddleboards, and river tubes to their itinerary. Unfortunately, continuing shoulder problems and finding other certified paddlers, they had to quit offering the guided raft tours.

Along the way a number of local residents united to form a group looking to find ways to improve water quality and quantity in the Milk River and searching out various water storage ideas along the Milk River to allay some of the water shortages that seemed to happen pretty regularly. In time, this group became the Milk River Watershed Council Canada. Ken was privileged enough to be asked to belong to both groups and did so willingly. The Council wishes to welcome Ken again to the MRWCC team of Board Members.

Industry and First Nations seats are currently vacant

The MRWCC is still in search of qualified individuals to fill the Industry and First Nations seat. For more information about these positions please contact Tim at 403-647-4342 or access the MRWCC Bylaws by visiting the MRWCC website at http://www.mrwcc.ca/files/2415/3548/6781/MRWCC_Bylaw_Revised_May_2018_Final.pdf

The MRWCC wishes to thank Darcy Wills, who has served as the Recreation representative on the Board of Directors from 2011. His dedication contributed immensely to the Councils' initiatives. While Darcy is no longer the Recreation representative on the Board, he continues to serve as a member of the MRWCC as the Alternate Individual Member. The Council wishes to thank Darcy for this undertaking.

Darcy and his family own a ranch on the Northern slope of the Sweetgrass Hills along the Alberta-Montana border. Being right on the border gives him a unique perspective on the international nature of the Milk River Watershed. One of his interests is the recharge area of the Milk River aquifer and the relationship of the aquifers and surface water. Darcy has been involved with many different organizations such as Western Stock Growers, Alberta Grazing Leaseholder's Association, and Alberta Fish and Game Association on a provincial basis, and Milk River East Water Coop, and Southern Alberta Outdoorsmen at the local level. He has a strong advocate of landowner's rights and recreational access to the Milk River and all water resources in the watershed. Darcy had been a member of the MRWCC Board of Directors since April 2011.

ENVIRONMENT AND CLIMATE CHANGE CANADA (ECCC)

– Producers leading the way Project

Producers leading the way: ECCC – Priority Places grant is an exciting opportunity for the MRWCC to find out what is the cost and value of Native Grassland Conservation across the Watershed? Small incentive programs have come and gone to producers to maintain or improve stewardship, but they have not avoided the past heavy-handed approach of damaging Environmental Protection Order restrictions. This project is an opportunity for producers to provide clear instruction of what expectations of future programs will incentivize participation. The project will develop an ecological goods and services menu for producers and determine how many actually are interested in participation and what actual incentives would have them get involved as trigger points. Cow-calf producers from all 4 watershed counties will be requested to be involved in the survey work which will help inform and shape compensations and further programs to recognize producers for the valuable ecological good and services they provide in grassland conservation.

16th Annual General Metting Report

Last year we hoped to have an in-person meeting this year but unfortunately, things did not work out as we hoped and reverted to the new normal by having a virtual meeting through a Zoom Webinar platform. We are pleased to report that the meeting went well. Thirty members were in attendance at the meeting at this year's AGM.

John Ross, MRWCC Chairman brought the meeting to order and welcomed everyone to the second ever virtual AGM.

An agenda was approved and meeting quorum was declared.

At the request of Alberta Registries, an update regarding borrowing powers was requested to be made to the MRWCC bylaw to conform to provincial expectations. The following amendment on "Borrowing Powers" to the MRWCC bylaws was presented for ratification:

■ *For the purpose of carrying out its objects, the Milk River Watershed Council Canada may borrow or raise or secure the payment of money in any manner it thinks fit, and in particular, by the issue of debentures. This power shall be exercised only under the authority of the bylaws of the Milk River Watershed Council Canada and in no case shall debentures be issued without the sanction of a special resolution of the Milk River Watershed Council Canada.*

This was followed by Tim Romanow, Executive Director to the Council presenting the Council's activity report and highlighted the roles of Alberta Watershed Planning and Advisory Councils (WPACs). Tim thanked all Council members and volunteer Team members for their accomplishments and went on to present each team's activities and some of the 2021/22 workplan highlights including the Transboundary State of the Watershed report which is scheduled to be completed in 2023.

Nicole Barnett, Insight Chartered Professional Accountants presented the MRWCC 2020/21 Financial Statements.

■ Nicole presented the financial statements year ending March 31, 2021. She presented the Independent Practitioner's Review Engagement Report by stating the practitioner's responsibility: to express a conclusion on the accompanying financial statements based on their review by conducting the review in accordance with Canadian generally accepted standards for review engagements, which require them to comply with relevant ethical requirements. A review of financial statements in accordance with Canadian generally accepted standards for review engagements is a limited assurance engagement. The practitioner performs procedures, primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures, and evaluates the evidence obtained

■ She went on to state that based on their review, nothing has come to their attention that causes them to believe that the financial statements do not present fairly, in all material respects, the financial position of Milk River Watershed Council Canada as at March 31,2021, and the results of its operations and its cash flows for the year then ended in accordance with ASNPO

She went on to present assets and liabilities; Statement of revenues and expenditures; Statement of cash flows; and Deferred contributions. Members passed a motion to accept the financial statements and approve Insight Chartered Accountants to review the MRWCC's financial statements for the 2021/22 fiscal year.

Will Lindeman led the election process and the following members were elected for the following positions:

■ Academia - Dr. Lorraine Nicol, University of Lethbridge.

■ Federal Government - Dr. Ben Ellert, Agriculture and Agri-Food Canada.

■ Individual Member - William King, Retired Area Rancher.

■ Towns/Villages - Suzanne Liebelt, Councilor, Town of Milk River.

■ Recreation - Ken Brown, Milk River Raft Tours Company.

■ Commercial/Industrial and First Nations seats are currently vacant. These seats will remain vacant until appointments are made.

John thanked all the elected officials and Will Lindeman for leading the elections. He went on to thank all participants for attending the 16th AGM virtually and hoped that future meetings will revert to in-person meetings.

Executive Director's report

The Milk River Watershed Council Canada has a diverse board of directors that through thoughtful and informed dialogue, develop projects that achieve balance among a thriving community, a healthy environment, and a sustainable economy.

Challenges during this past year were not unique to the Milk River watershed but did test our resolve and ability at nearly every turn. Covid-19 and the associated impacts were felt in our business, workplan, and daily activities. A quick pivot to virtual meetings, scheduled community appointments instead of regular office activities, and movement away from traditional outreach was necessary. On a positive note, virtual activities and meetings are becoming more normalized and access is improving though we must not lose sight of the aged demographics and limited access to reliable high speed internet services across most of the watershed in our future activities. Like many others we cannot wait to shake your hand again and share a pot of coffee with our friends, family and colleagues! Our office in Milk River has reopened by appointment to the community, so stop in and say hello.

On Sunday, May 17 2020, a concrete drop structure failed on the Milk River Project St. Mary Canal, just south of Whiskey Gap in Montana. For the first time in over 105 years, our community was entirely reliant on natural flow on the Milk River during summer months. Projections for irrigated crop production losses were in the 2.5-to-3-million-dollar range during May but timely rains had helped producers limit loss in production.

Repairs began almost immediately to the failed Drop 5 and near failed Drop 2 along the St Mary Diversion. Though now complete, water security is still threatened with the need for nearly 150 million USD of additional upgrades. Our Montana colleagues are still canvasing their elected officials for the funding necessary to upgrade this critical infrastructure.

Spurred on from the failure, the MRWCC mobilized our volunteers and technical teams to collect as much information as possible about our watershed during the natural flow period.

We are also very excited to be working on a few new projects this year outlined within this newsletter!

Thank you to the staff and membership of the council for making all projects and responses to our challenges possible this past year. Please watch for future opportunities to help support sustainable management within our watershed; and feel free to contact us to learn more about the projects and work of the MRWCC.

Tim Romanow
Executive Director, MRWCC

Report from the Chairman

Even with all the events of this last year, we were actually pretty lucky.

When Drop Structure #5 catastrophically failed last spring, which forced the shutdown of the diversion from the St. Mary River into the Milk River, we needed to make-do like our ancestors did over 100 years ago. We had an unusually wet spring and a few rain events that helped keep the Milk River from drying up entirely. Irrigation was able to pump until the third week of July which gave the irrigators a longer run than was originally anticipated. The towns of Milk River and Coutts/Sweetgrass did not run out of water.

We, as a community, had to adapt to the challenges, and this showed how we can pull together in a time of crisis. Water restrictions for the town, combined with the previously expanded off-stream storage capacity allowed the town of Milk River to not have to take more drastic actions. The Americans got right to work replacing Drop #5 and Drop #2, as well as repairing Drop Structure #1. They did this in an amazingly short period of time, which allowed water to be diverted into the Milk River for a short time in October to complete the season and recharge dams on the river.

The fish in the river were hard hit, but it could have been a lot worse. I watched an eagle fly into a small, isolated pool of water near my house and catch a big fish. Good for the eagle, but bad for the fish. As luck would have it the river never did dry up entirely, as it had been feared in the spring. Our ongoing water monitoring program showed the salt content of the remaining river water concentrated significantly, approaching that of sea water. Most years the river would dry up in the summer except for the diversion water, but due to wetter than normal conditions, it was able to keep a small stream flowing past my place, in a very narrow channel.

It looks like the large dam project west of Milk River is still a long way away and only if supported by the IJC modeling project as a strong option to support both countries. For now, water users are leading exploration into less intrusive, smaller off-stream projects to augment our water supply should another failure occur to the diversion system or balancing water to meet treaty requirements for late season water when conditions under the letter of intent cannot be met in late summer. This would avoid the situation that occurred in 2017 with irrigators being shut down at the start of August based on natural flow calculations. The need for improved water security was again highlighted this spring when the diversion started. In just a few days the turnout sprung a serious leak and the diversion had to be halted. It was quickly repaired, but the 2X6 and plywood patch that looks eerily similar to drop 5 before its failure is temporary at best. We currently have water running, but until a much more substantial repair is completed to the entire diversion system, we can never be totally assured of our water supply. According to the 1909 Boundary Waters Treaty the natural flow of the Milk River is divided between the two countries. When there is very little water in the river, only 25% of that is available to Canada. We are very reliant on the diversion water.

We are still unable to hold meetings in person, but we hope to host in-person meetings in the near future; once everyone has had an opportunity to get their shots.

There, I made it through my entire report without mentioning COVID-19 once -----DAMN!

Good Wishes and Good Health.

John A. Ross, Chairman, MRWCC

CONTACT US

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