Our Water ~ Our Legacy

Milk River Watershed Council Canada

World Water Day: Collaborating with Nature and Each Other

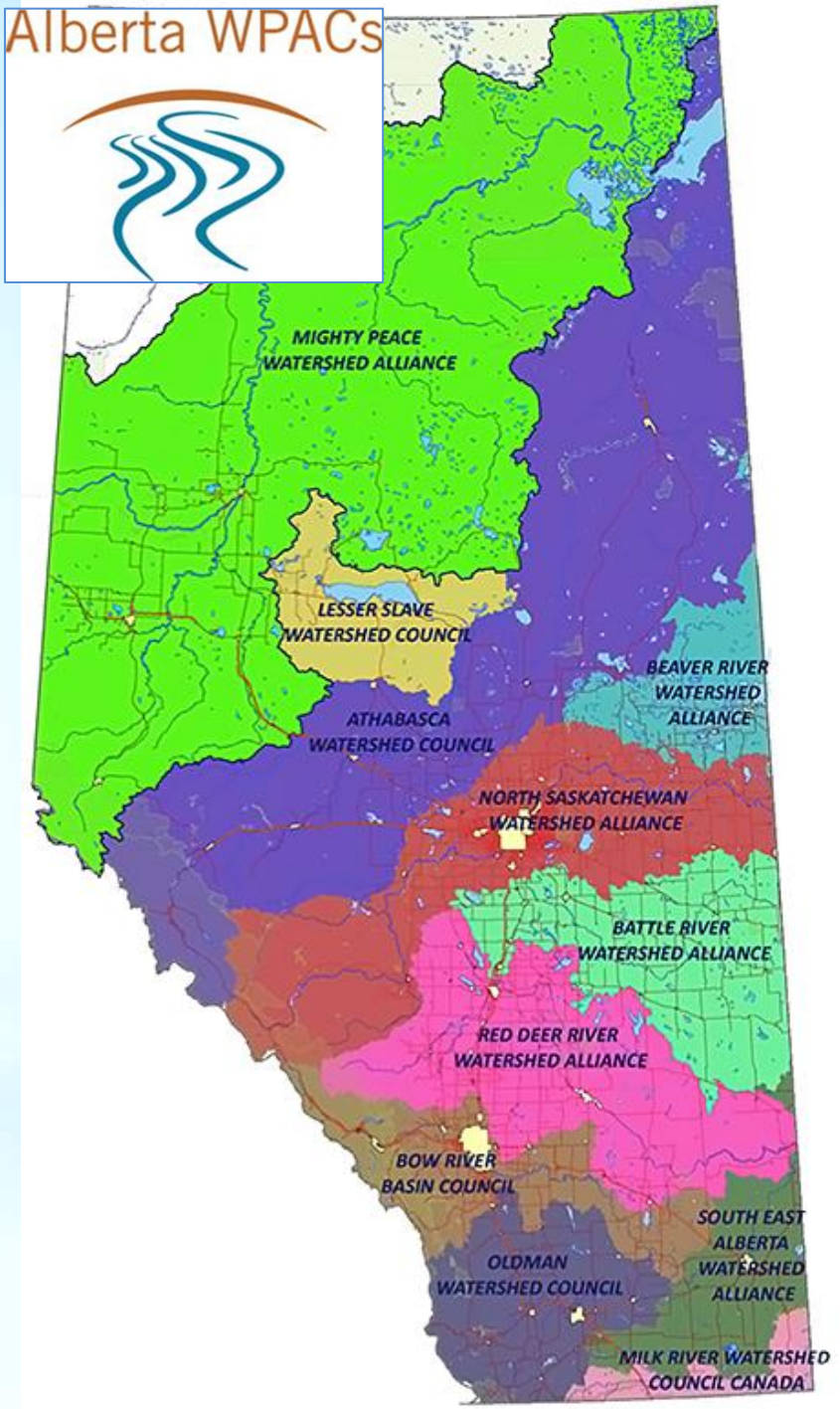
Tim Romanow BSc Executive Director - MRWCC

Overview:

- Alberta WPACs
- Milk River Watershed
- Transboundary nature and management
- Water security challenges
- Species at risk
- Research & Monitoring Partners!
- Stewardship work
- Partners across all borders!

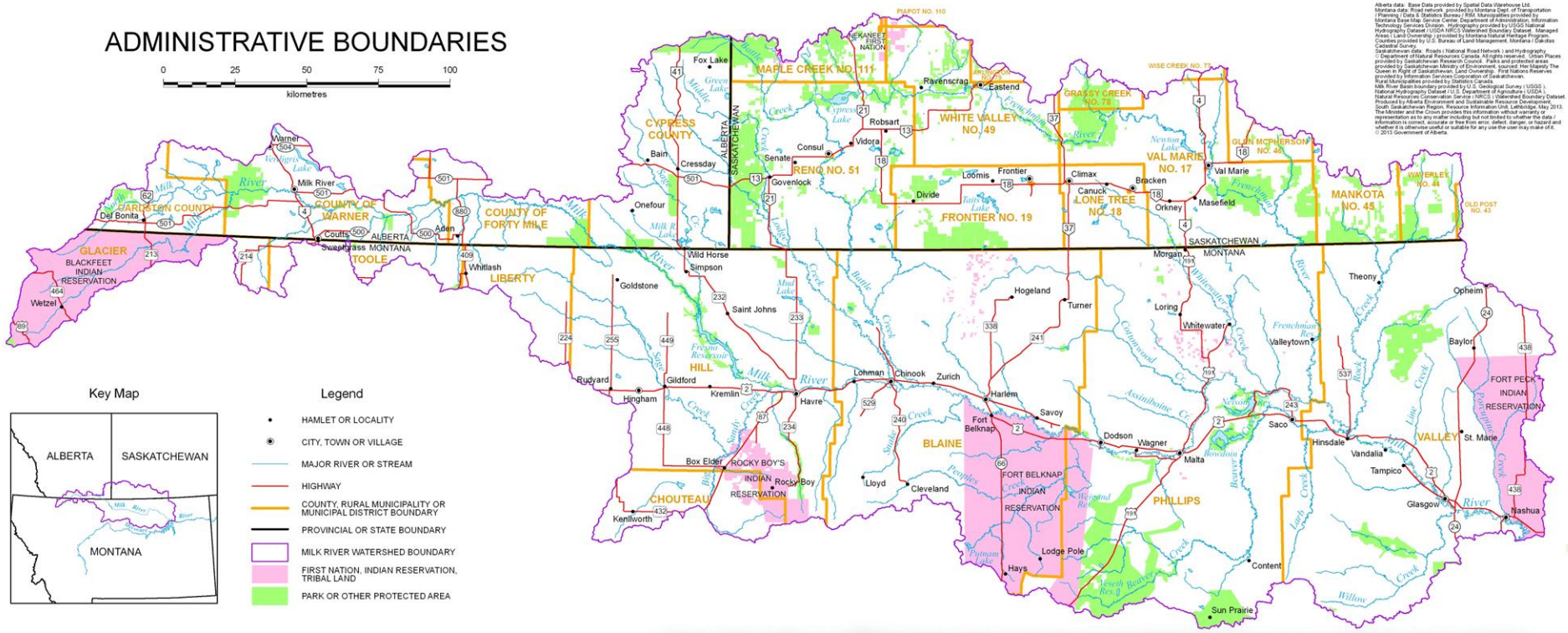
Milk River Watershed Council Canada

- MRWCC - one of 11 Watershed Planning and Advisory Councils (WPAC's)within the Province.
- Not for profit Charitable Society, providing a local voice for community concerns to be addressed through science based planning, research, monitoring, and stewardship activities.



This is just a small slice of the incredible diversity of projects and people that stitch together water and watershed management within Alberta!

The Milk River Watershed



2022-2023 Council:

Executive:

Chairman
John A. Ross, Agriculture
Vice Chairman
Ron McNeil, NGO
Treasurer
Will Lindeman, Water User
Secretary
Warren Cunningham, Recreation Alt.

- Ed Sloboda, General NGO
- Aaron Domes, Provincial Government
- Joan Hughson, Rural Municipality
- Kristen Dykstra, Health
- Ken Brown, Individual
- Academia - Vacant
- Jon Boyle, Industry
- Ross Ford, Rural Municipality
- Jollin Charet, Provincial Government
- Peggy Losey, Urban Municipality
- Scott MacCumber, Alternate, Urban Municipality
- Darcy Wills, Alt. Recreation
- First Nations - Vacant
- Ben Elhert, Federal Government
- Ken Miller, Agriculture -Irrigator
- William King, Member at Large

The Watershed

The Sweetgrass Hills, Montana

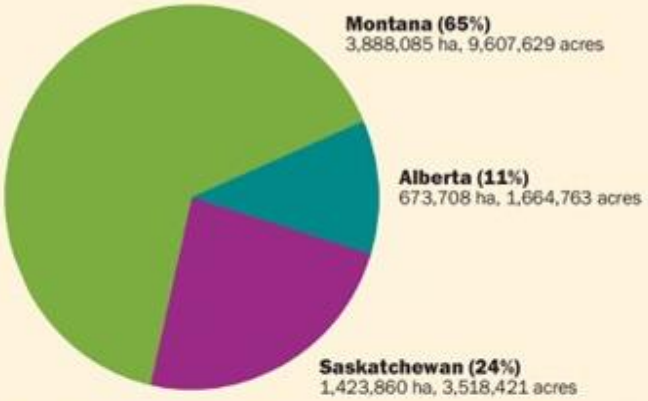
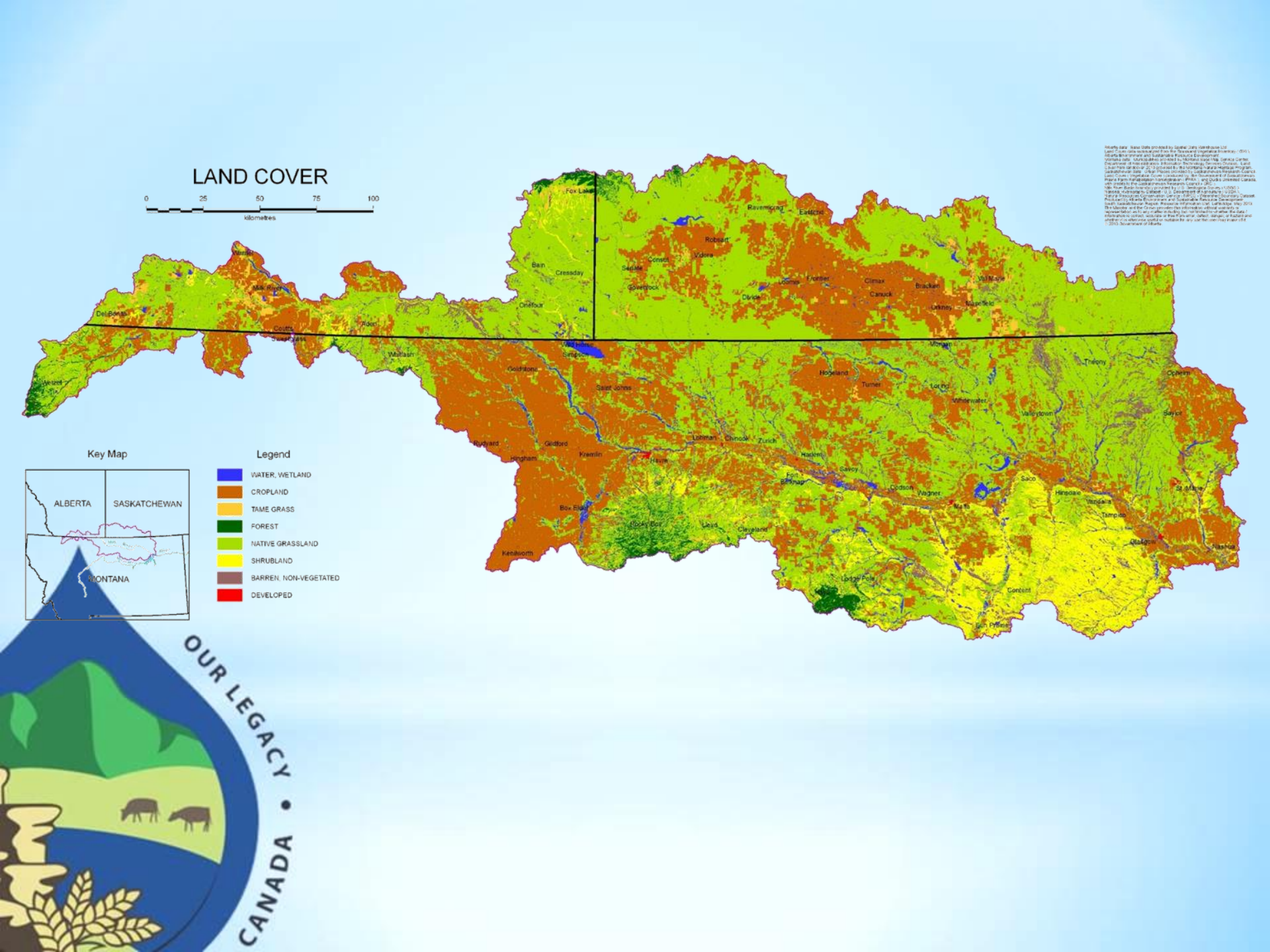
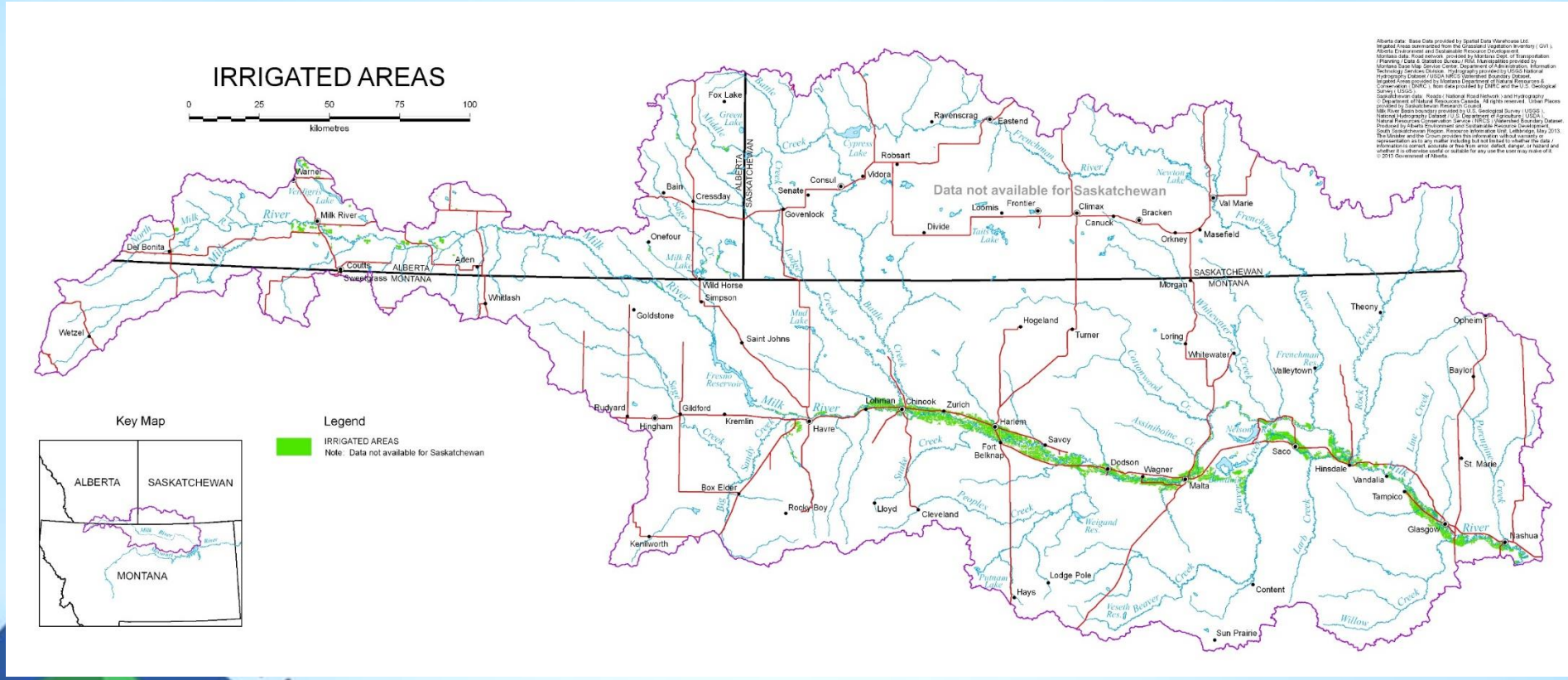


Figure 2.1. Area of the Milk River watershed in Alberta, Saskatchewan and Montana.


LAND COVER
0 25 50 75 100
kilometres
Key Map
ALBERTA
SASKATCHEWAN
MONTANA
Legend
WATER, WETLAND
CROPLAND
TAME GRASS
FOREST
NATIVE GRASSLAND
SHRUBLAND
BARREN, NON-VEGETATED
DEVELOPED
OUR LEGACY • CANADA


IRRIGATED AREAS
0 25 50 75 100
kilometres
Data not available for Saskatchewan
Key Map
ALBERTA
SASKATCHEWAN
MONTANA
Legend
IRRIGATED AREAS
Note: Data not available for Saskatchewan
Warner
Milk River
Del Bonita
Coutts
Sweetgrass
Aden
Whitlash
Wetzel
Fox Lake
Ravenscrag
Eastend
Robsart
Vidora
Bain
Cressday
Consul
Senate
Govenlock
Onefour
Loomis
Frontier
Climax
Bracken
Canuck
Divide
Orkney
Masefield
Val Marie
Morgan
Wild Horse
Simpson
Goldstone
Saint Johns
Hogeland
Turner
Loring
Whitewater
Theony
Opheim
Valleytown
Baylor
Rudyard
Gildford
Hingham
Kremlin
Havre
Lohman
Chinook
Zurich
Harlem
Fort Belknap
Savoy
Dodson
Wagner
Malta
Saco
Hinsdale
Vandalia
Tampico
St. Marie
Box Elder
Rocky Boy
Lloyd
Cleveland
Glasgow
Nashua
Kerrillworth
Lodge Pole
Hays
Content
Sun Prairie

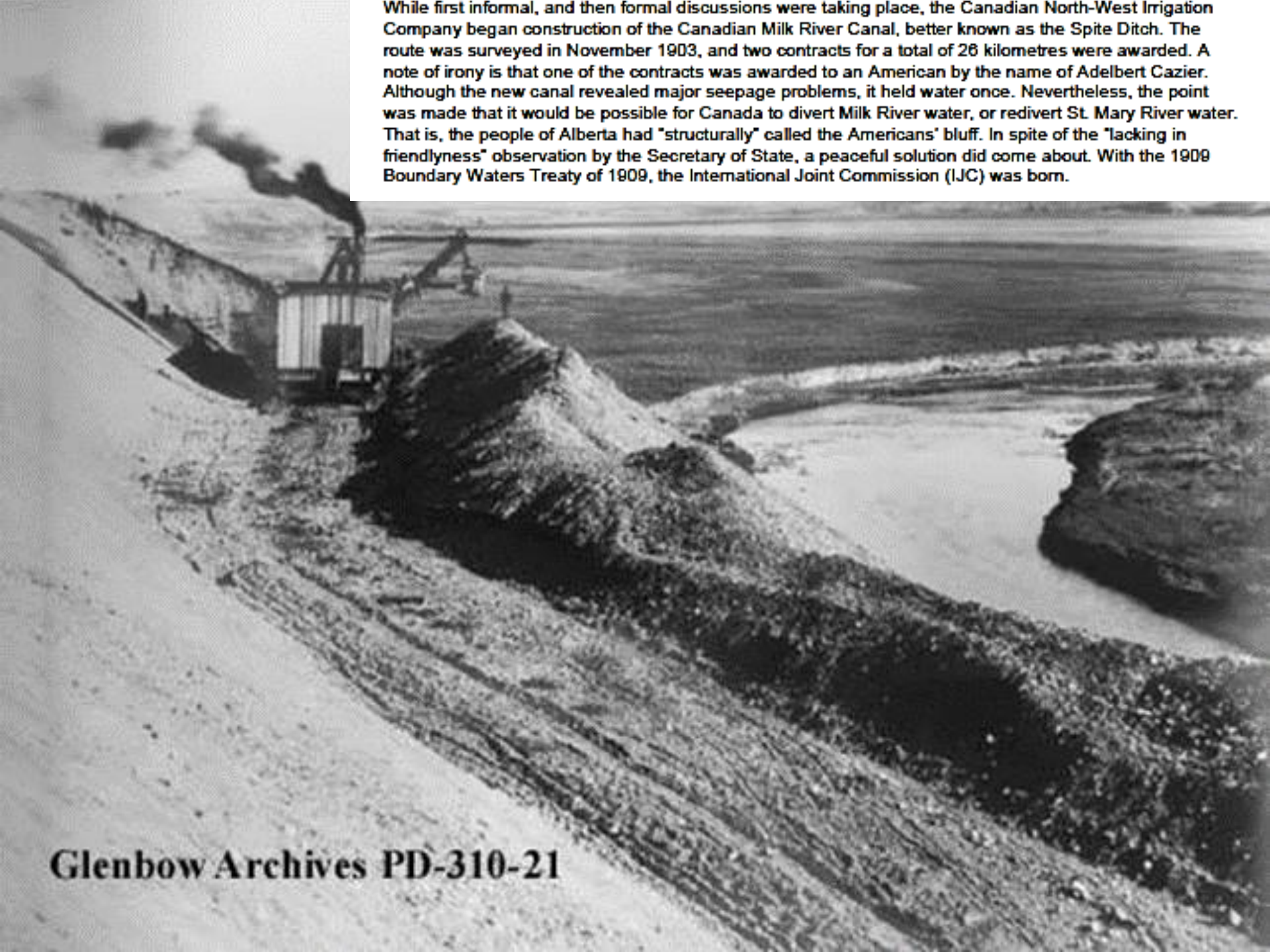
The first known European contact with Milk River came through the 1805 travel journals of Merriweather Lewis of Lewis & Clark fame.

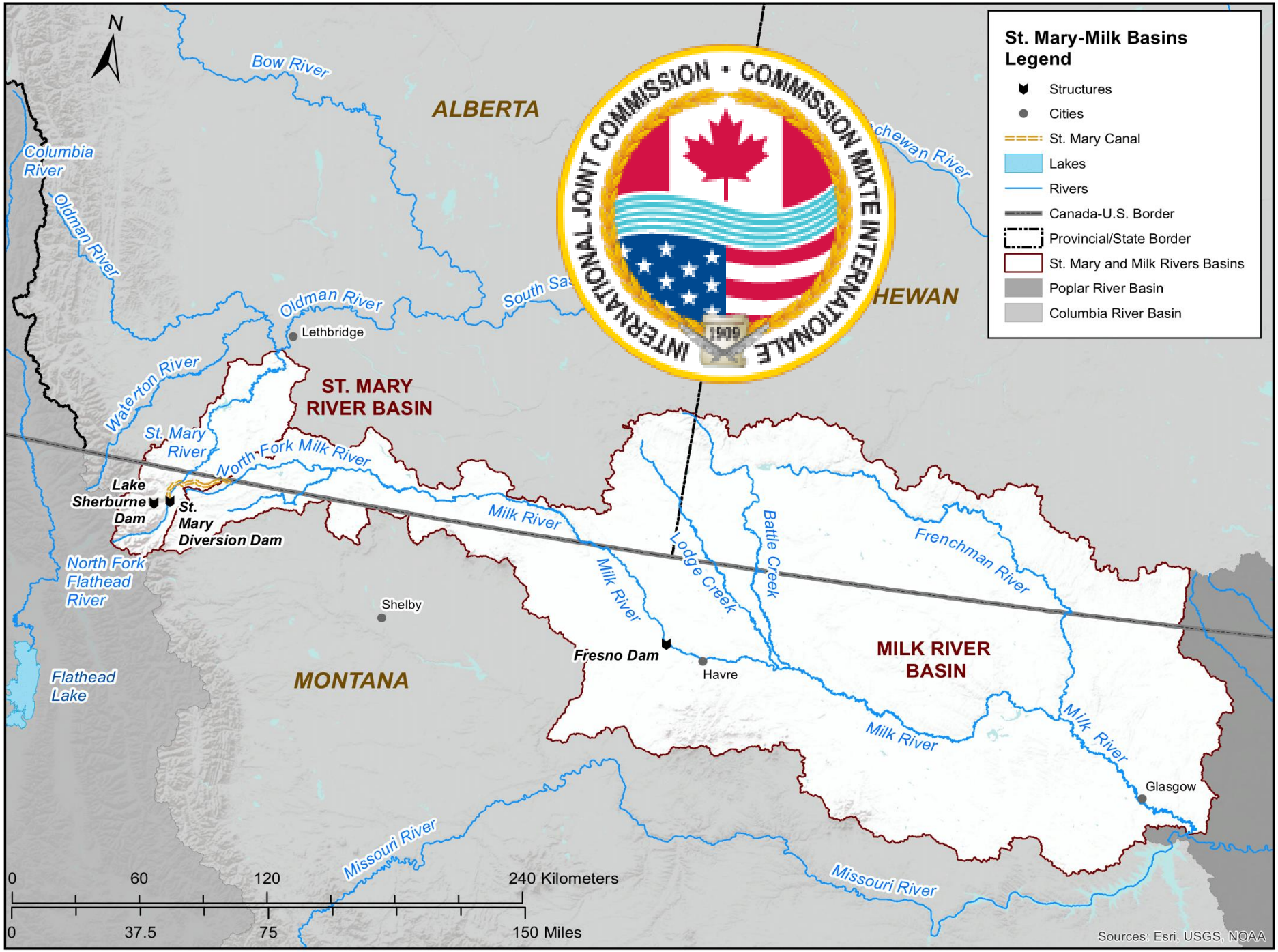
His journal states: "… the water of this river possesses a peculiar whiteness, being about the color of a cup of tea with the admixture of a tablespoon full of milk." Due to its milky hue and consistency, Lewis and his fellow intrepid travelers came to the Milk River moniker.


Round up in Milk River Valley.
Copyright Canada by A.E. Brown 1912
Western Canada Ranching Series No. 31.


Site prep circa 1910 near Babb MT

While first informal, and then formal discussions were taking place, the Canadian North-West Irrigation Company began construction of the Canadian Milk River Canal, better known as the Spite Ditch. The route was surveyed in November 1903, and two contracts for a total of 26 kilometres were awarded. A note of irony is that one of the contracts was awarded to an American by the name of Adelbert Cazier. Although the new canal revealed major seepage problems, it held water once. Nevertheless, the point was made that it would be possible for Canada to divert Milk River water, or redivert St. Mary River water. That is, the people of Alberta had "structurally" called the Americans' bluff. In spite of the "lacking in friendlyness" observation by the Secretary of State, a peaceful solution did come about. With the 1909 Boundary Waters Treaty of 1909, the International Joint Commission (IJC) was born.

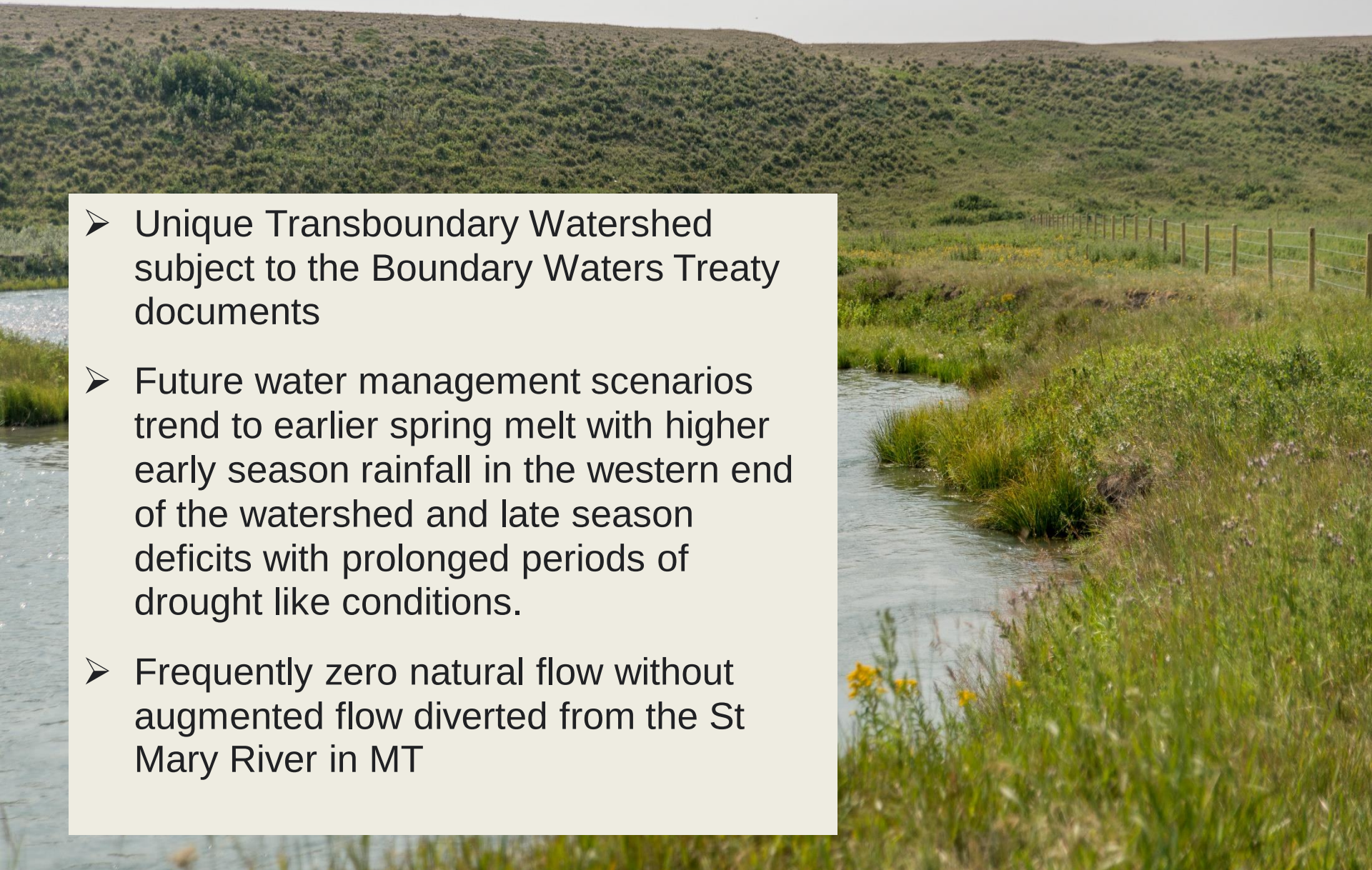



St. Mary-Milk Basins Legend
Structures
Cities
St. Mary Canal
Lakes
Rivers
Canada-U.S. Border
Provincial/State Border
St. Mary and Milk Rivers Basins
Poplar River Basin
Columbia River Basin
INTERNATIONAL JOINT COMMISSION • COMMISSION MIXTE INTERNATIONALE
1909
N
ALBERTA
HEWAN
MONTANA
Bow River
Columbia River
Oldman River
Waterton River
St. Mary River
North Fork Milk River
Lake Sherburne Dam
St. Mary Diversion Dam
North Fork Flathead River
Flathead Lake
Lethbridge
Shelby
Fresno Dam
Havre
Glasgow
ST. MARY RIVER BASIN
MILK RIVER BASIN
Milk River
Lodge Creek
Battle Creek
Frenchman River
Missouri River
0 60 120 240 Kilometers
0 37.5 75 150 Miles
Sources: Esri, USGS, NOAA

- Drop structure 5 fails on the Long weekend

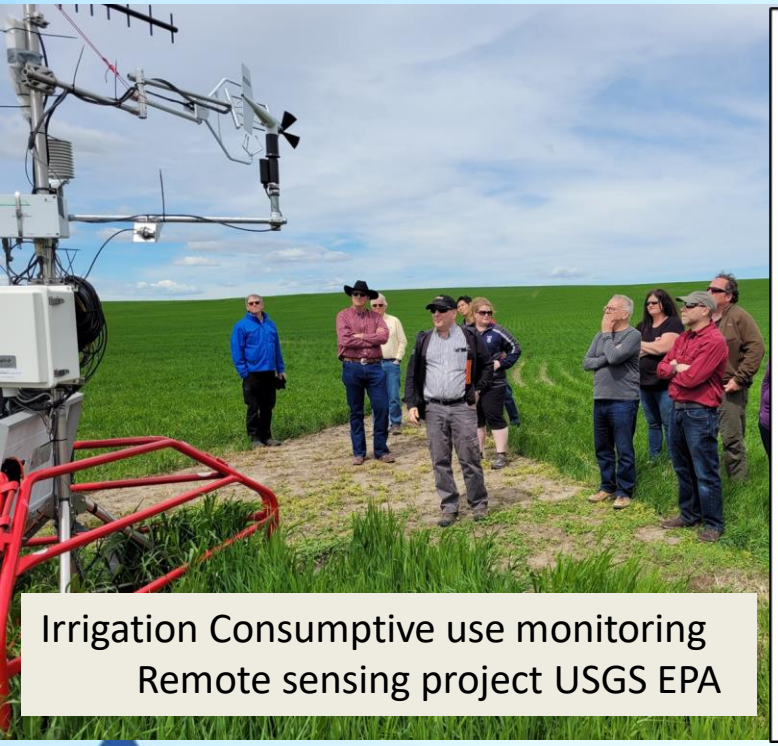
May 17th, 2020

Water Challenges and security:

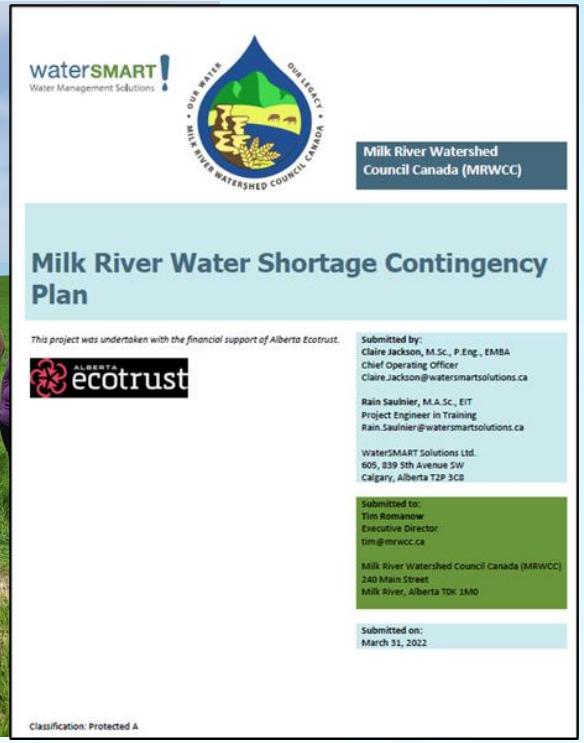


- Unique Transboundary Watershed subject to the Boundary Waters Treaty documents
- Future water management scenarios trend to earlier spring melt with higher early season rainfall in the western end of the watershed and late season deficits with prolonged periods of drought like conditions.
- Frequently zero natural flow without augmented flow diverted from the St Mary River in MT

Transboundary Watershed Management: Investing in Water Security



Irrigation Consumptive use monitoring
Remote sensing project USGS EPA



waterSMART
Water Management Solutions

Milk River Watershed Council Canada (MRWCC)

Milk River Water Shortage Contingency Plan

This project was undertaken with the financial support of Alberta Ecotrust.

ALBERTA ecotrust

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tim@mrwcc.ca

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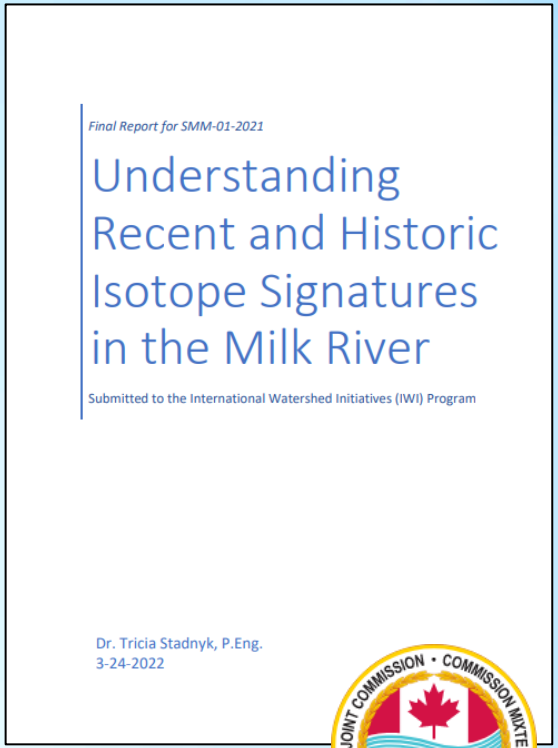
240 Main Street
Milk River, Alberta T0K 1M0

Submitted on:
March 31, 2022

Classification: Protected A

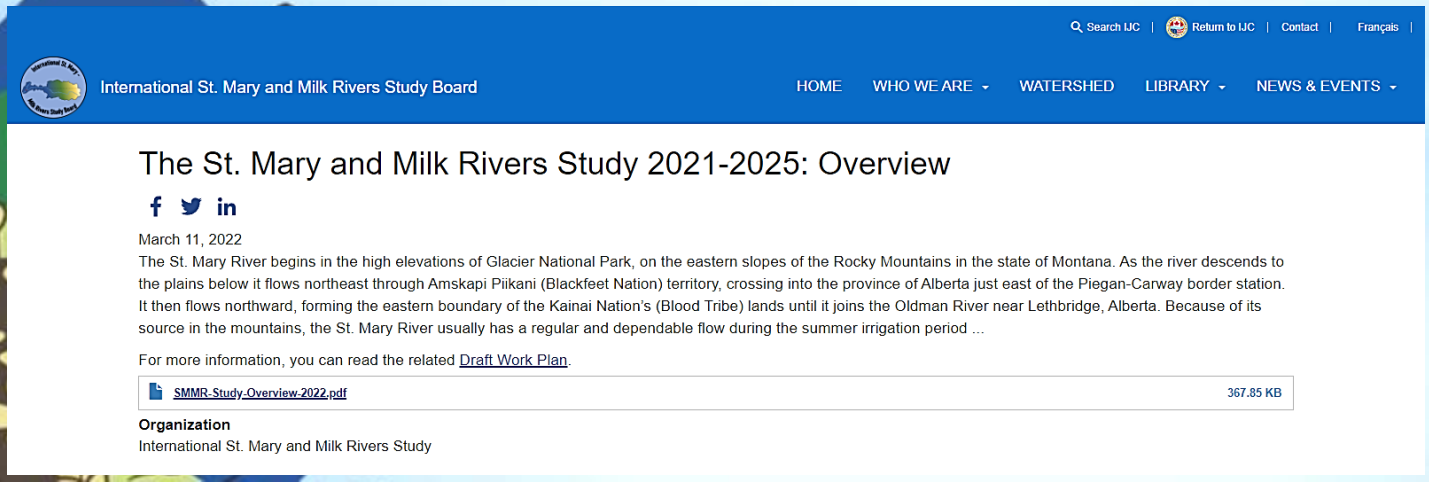


Final Report for SMM-01-2021

Understanding Recent and Historic Isotope Signatures in the Milk River

Submitted to the International Watershed Initiatives (IWI) Program

Dr. Tricia Stadnyk, P.Eng.
3-24-2022



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International St. Mary and Milk Rivers Study Board

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The St. Mary and Milk Rivers Study 2021-2025: Overview

March 11, 2022

The St. Mary River begins in the high elevations of Glacier National Park, on the eastern slopes of the Rocky Mountains in the state of Montana. As the river descends to the plains below it flows northeast through Amskapi Piikani (Blackfeet Nation) territory, crossing into the province of Alberta just east of the Piegan-Carway border station. It then flows northward, forming the eastern boundary of the Kainai Nation's (Blood Tribe) lands until it joins the Oldman River near Lethbridge, Alberta. Because of its source in the mountains, the St. Mary River usually has a regular and dependable flow during the summer irrigation period ...

For more information, you can read the related Draft Work Plan.

SMMR-Study-Overview-2022.pdf 367.85 KB

Organization
International St. Mary and Milk Rivers Study

IJC St Mary – Milk River Study

- Administrative and structural recommendations

"Watershed work doesn't stop at the river; the river ties us together!"

Over 80% of the Species at Risk found in Alberta are found in the watershed, due to ~81% of the watershed native rangeland, ~60% Public Lands under grazing lease.

See Alberta Guide to Sportfishing Regulation
www.mywildalberta.com
REPORT A POACHER
1-800-642-3800

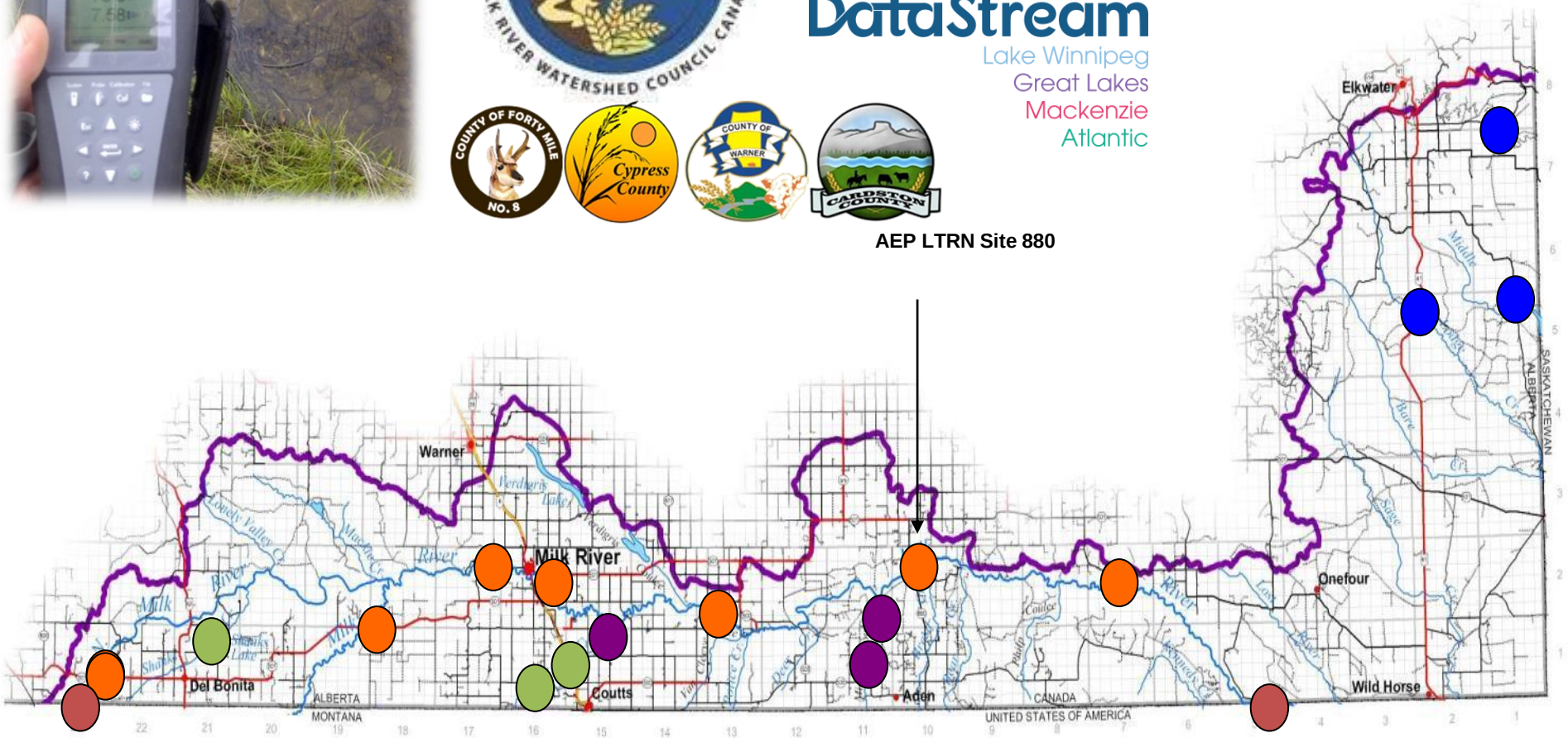
Rangelands: These are working Landscapes…

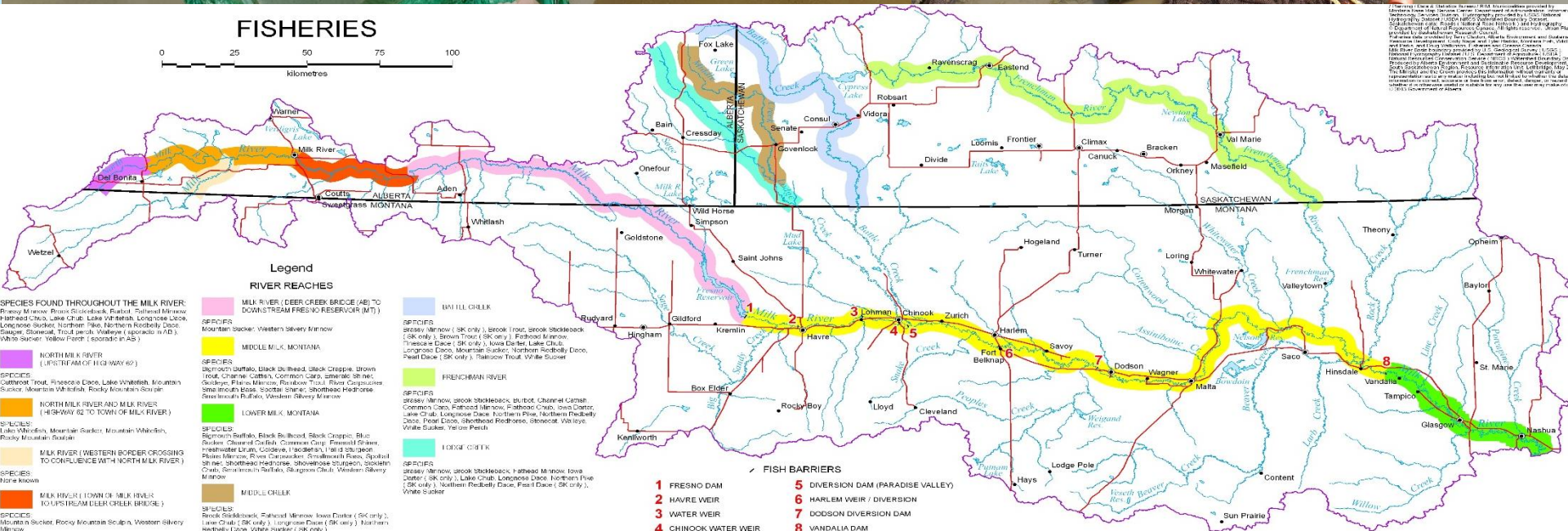
Research and Monitoring Efforts

Alberta Government

DataStream
Lake Winnipeg
Great Lakes
Mackenzie
Atlantic

AEP LTRN Site 880

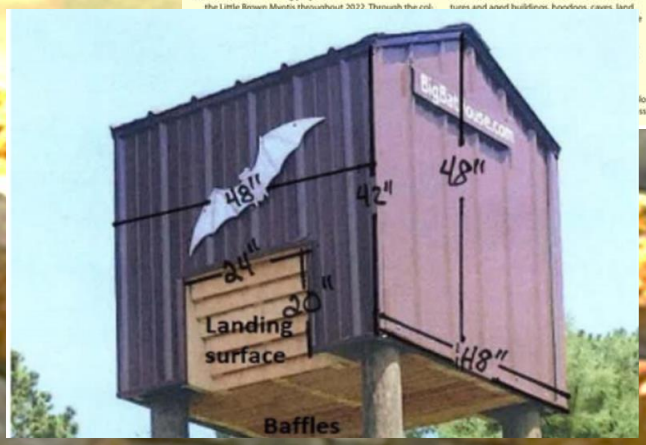



FISHERIES
0 25 50 75 100
kilometres
Legend
RIVER REACHES
SPECIES FOUND THROUGHOUT THE MILK RIVER:
Brassy Minnow, Brook Stickleback, Burbot, Fathead Minnow, Hathead Chub, Lake Chub, Lake Whitefish, Longnose Dace, Longnose Sucker, Northern Pike, Northern Redbelly Dace, Sauger, Stonecat, Trout perch, Walleye (sporadic in AB), White Sucker, Yellow Perch (sporadic in AB)
NORTH MILK RIVER (UPSTREAM OF HIGHWAY 62)
SPECIES:
Cutthroat Trout, Finescale Dace, Lake Whitefish, Mountain Sucker, Mountain Whitefish, Rocky Mountain Sculpin
NORTH MILK RIVER AND MILK RIVER (HIGHWAY 62 TO TOWN OF MILK RIVER)
SPECIES:
Lake Whitefish, Mountain Sucker, Mountain Whitefish, Rocky Mountain Sculpin
MILK RIVER (WESTERN BORDER CROSSING TO CONFLUENCE WITH NORTH MILK RIVER)
SPECIES:
None known
MILK RIVER (TOWN OF MILK RIVER TO UPSTREAM DEER CREEK BRIDGE)
SPECIES:
Mountain Sucker, Rocky Mountain Sculpin, Western Silvery Minnow
MILK RIVER (DEER CREEK BRIDGE (AB) TO DOWNSTREAM FRESNO RESERVOIR (MT))
SPECIES:
Mountain Sucker, Western Silvery Minnow
MIDDLE MILK, MONTANA
SPECIES:
Bigmouth Buffalo, Black Bullhead, Black Crappie, Brown Trout, Channel Catfish, Common Carp, Emerald Shiner, Freshwater Drum, Goldeye, Hackleback, Paddlefish, Plains Minnow, Rainbow Trout, River Carpsucker, Smallmouth Bass, Spottail Shiner, Shorthead Redhorse, Smallmouth Buffalo, Western Silvery Minnow
LOWER MILK, MONTANA
SPECIES:
Bigmouth Buffalo, Black Bullhead, Black Crappie, Blue Sucker, Channel Catfish, Common Carp, Emerald Shiner, Freshwater Drum, Goldeye, Hackleback, Paddlefish, Yellow sturgeon, Plains Minnow, River Carpsucker, Smallmouth Bass, Spotted Shiner, Shorthead Redhorse, Shovelnose Sturgeon, Sicklefin Chub, Smallmouth Buffalo, Sturgeon Chub, Western Silvery Minnow
MIDDLE CREEK
SPECIES:
Brook Stickleback, Fathead Minnow, Iowa Darter (SK only), Lake Chub (SK only), Longnose Dace (SK only), Northern Redbelly Dace, White Sucker (SK only)
BATTLE CREEK
SPECIES:
Brassy Minnow (SK only), Brook Trout, Brook Stickleback (SK only), Brown Trout (SK only), Fathead Minnow, Finescale Dace (SK only), Iowa Darter, Lake Chub, Longnose Dace, Mountain Sucker, Northern Redbelly Dace, Pearl Dace (SK only), Rainbow Trout, White Sucker
FRENCHMAN RIVER
SPECIES:
Brassy Minnow, Brook Stickleback, Burbot, Channel Catfish, Common Carp, Fathead Minnow, Fathead Chub, Iowa Darter, Lake Chub, Longnose Dace, Northern Pike, Northern Redbelly Dace, Pearl Dace, Shorthead Redhorse, Stonecat, Walleye, White Sucker, Yellow Perch
LODGE CREEK
SPECIES:
Brassy Minnow, Brook Stickleback, Fathead Minnow, Iowa Darter (SK only), Lake Chub (SK only), Longnose Dace, Northern Pike (SK only), Northern Redbelly Dace, Pearl Dace (SK only), White Sucker
FISH BARRIERS
1 FRESNO DAM
2 HAVRE WEIR
3 WATER WEIR
4 CHINOOK WATER WEIR
5 DIVERSION DAM (PARADISE VALLEY)
6 HARLEM WEIR / DIVERSION
7 DODSON DIVERSION DAM
8 VANDALIA DAM
Fox Lake
Ravenscrag
Eastend
Robsart
Bain
Cressday
Consul
Senate
Vidora
Govenlock
Loomis
Frontier
Climax
Bracken
Val Marie
Canuck
Divide
Orkney
Maxfield
Onefour
Warner
Milk River
Del Bonita
Coutts
Sweetgrass
ALBERTA
MONTANA
Aden
Whitlash
Wetzel
Wild Horse
Simpson
Goldstone
Saint Johns
Morgan
SASKATCHEWAN
Hogeland
Turner
Loring
Whitewater
Theony
Opheim
Valleytown
Baylor
Rudyard
Gildford
Kremlin
Havre
Lohman
Chinook
Zurich
Harlem
Hingham
Box Elder
Rocky Boy
Lloyd
Cleveland
Fort Belknap
Savoy
Dodson
Wagner
Malta
Saco
Hinsdale
Vandalia
Tampico
Glasgow
St. Marie
Nashua
Kenilworth
Lodge Pole
Hays
Content
Sun Prairie

Securing a Home for Bats in the Milk River Watershed project

- A multi-year project
- The project identifies and documents important roost sites being used by the Little Brown Myotis throughout the watershed
- Ultimately, the goal is to understand population trends
- Value of Riparian Habitats, Cottonwoods, Yard Sites, etc

Species Groups	Total Number of Recordings
LABO/MYLU	2447
Myotis 40k	6822
Myotis spp.	336
20k	3441
NoID	899
Noise	10761
Total	13945



Education and Outreach

Youth Range Days

Grass-Roots Stewardship

SOUTHERN ALBERTA YOUTH RANGE DAYS

SAVE THE DATE: July 18-20, 2023

The Southern Alberta Youth Range Days are an interactive 2-day event to engage youth on topics such as rangelands, watersheds, wildlife, and natural resource management! **This year's camp will be held at Del Bonita AB,** which is in the heart of Canadian cattle country in Cardston County. Special in-field activities and presentations will cover everything from pollinators, species at risk conservation, bats, rangeland management, and more! We invite youth of all backgrounds and ages to join us on this exciting trip to learn more about the important watershed we call home.

Space is limited: please register by June 20th, 2023.
Cost: $80 per person. Ages: 13-18, families welcome!
To register, or for more information, please contact youthrangedays@gmail.com

Southern Alberta Youth Range Days

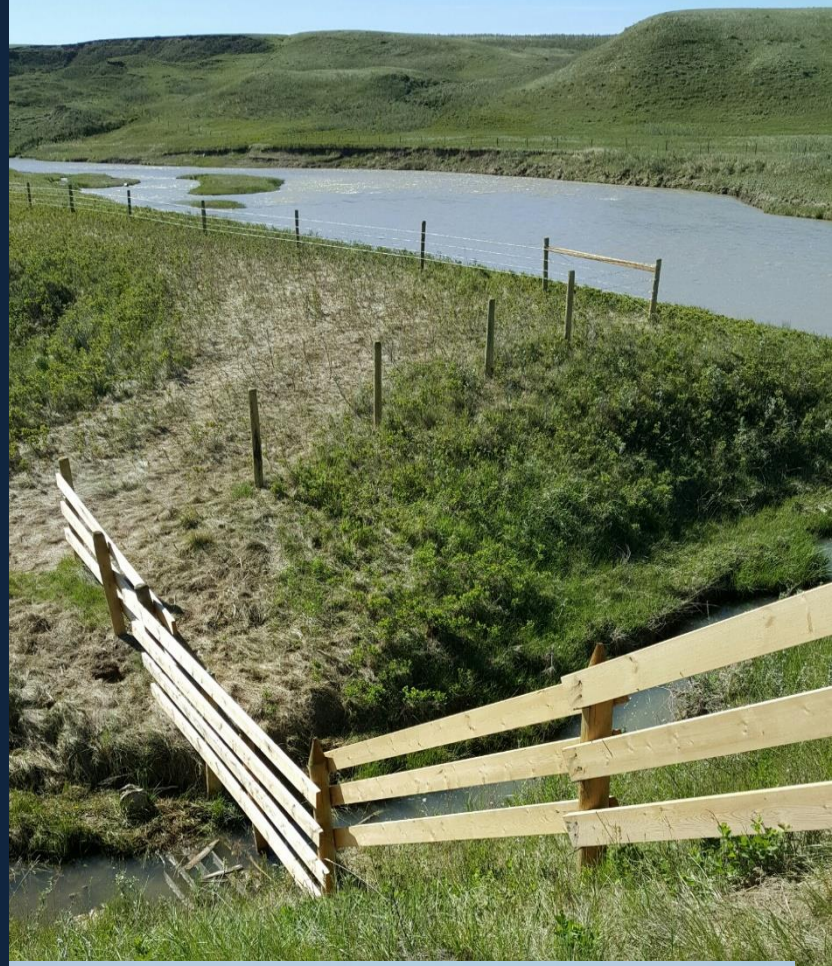
Stewardship…

Producer Testimonials:

"Without the Watershed Council's support and the WRRP program, it would have been nearly impossible for me to operate last year. We didn't realize how disastrous losing our water could be and the diversion failure has caused us to rethink drought resiliency for our entire operation"

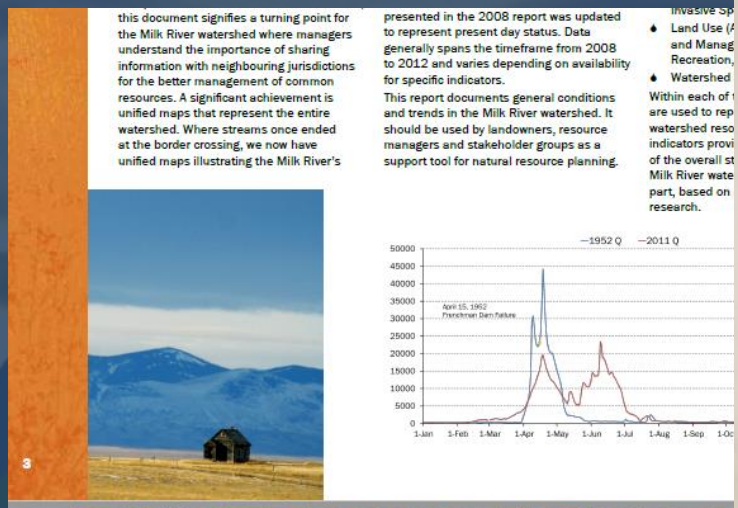
"We consider ourselves fortunate to be able to leverage the WRRP funding from the watershed, the changes we have made to managing our river pastures are already proving invaluable for the trees and our livestock"

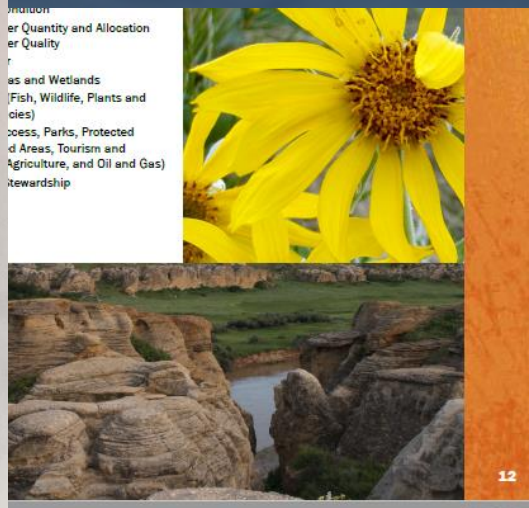
"With the increases in operating costs last years fencing materials increase it would be nearly impossible to make our farm drought resilient today. Thank you to the government of Alberta and watershed for working with us to develop a project that's a win for everyone"

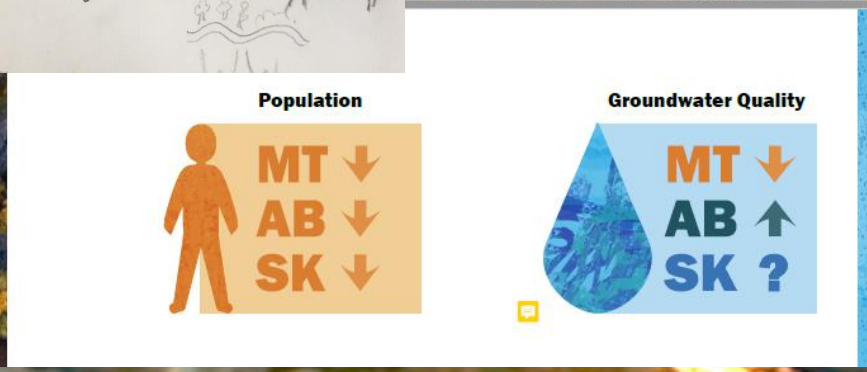


2023 Transboundary State of the Watershed report

- Report to be completed this year! 10yrs since the last edition
- Recruited over 75Team members and contributors from all 3 jurisdictions with leadership from MRWCC, Sask South of the Divide, and Montana MRWA and MRJBOC
- Financial contributions committed from all three jurisdictions







Our Water ~ Our Legacy

DataStream
Lake Winnipeg
Great Lakes
Mackenzie
Atlantic

Alberta Government

SOUTH of the DIVIDE
Conservation Action Program Inc.

Environment and Climate Change Canada
Environnement et Changement climatique Canada

INTERNATIONAL JOINT COMMISSION • COMMISSION MIXTE INTERNATIONALE 1909

BUREAU OF RECLAMATION

Generous Community Members!

Water Survey Relevés hydrologiques

MILK RIVER WATERSHED ALLIANCE MRWA

MULTISAR
At Home on the Range
Partnering with Landowners to conserve Grassland Species at Risk in Alberta

County of Forty Mile No. 8

Cypress County

Cardston County

Alberta Conservation Association
Conserving Alberta's Wild Side

NATURE CONSERVANCY CANADA

ALBERTA ecotrust

www.mrwcc.ca

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