

NORTH SASKATCHEWAN WATERSHED ALLIANCE

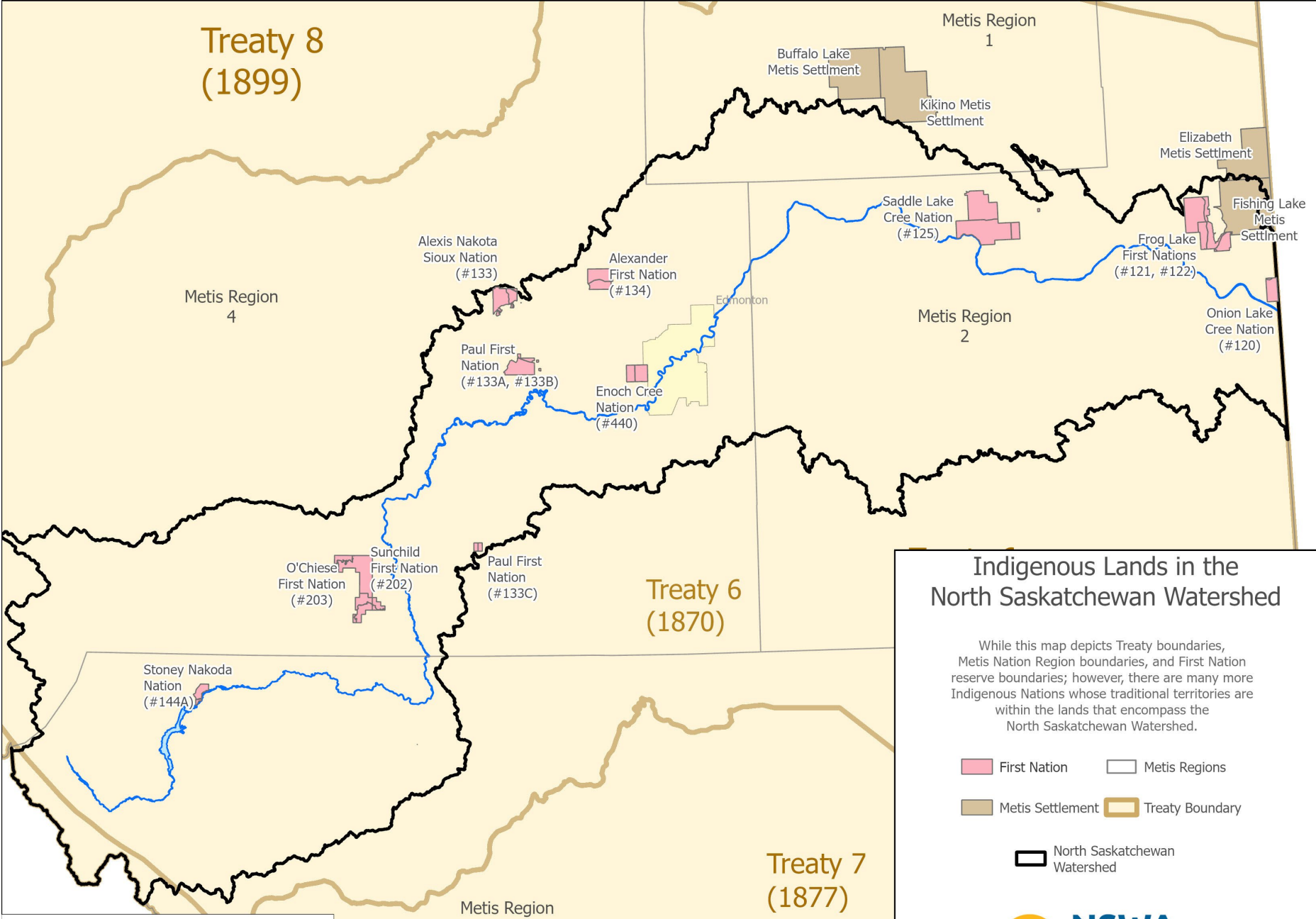
Lake Stewardship and Restoration Webinar
May 9th, 2023



NSWA

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Treaty 8 (1899)



Indigenous Lands in the North Saskatchewan Watershed

While this map depicts Treaty boundaries, Metis Nation Region boundaries, and First Nation reserve boundaries; however, there are many more Indigenous Nations whose traditional territories are within the lands that encompass the North Saskatchewan Watershed.

- First Nation
- Metis Regions
- Metis Settlement
- Treaty Boundary
- North Saskatchewan Watershed



Note: Although the Big Horn 144 (Stoney Nakoda Nation) land is in in Treaty 6 territory, it is a signatory of Treaty 7 and Part of Stoney Nakoda Nation.
Note this Map shows the approximate area of treaty land as there is no consensus between rights holders and stakeholders about exact treaty boundaries.

Before we begin...



We are recording



Please turn off your video

+

keep microphone muted



If you would like to ask a question, please
use the chat feature

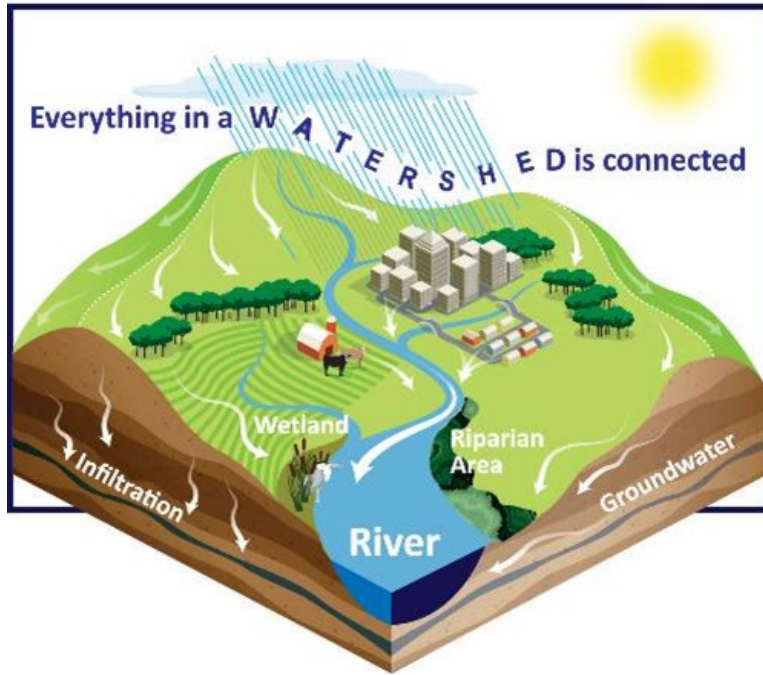


Feedback encouraged!

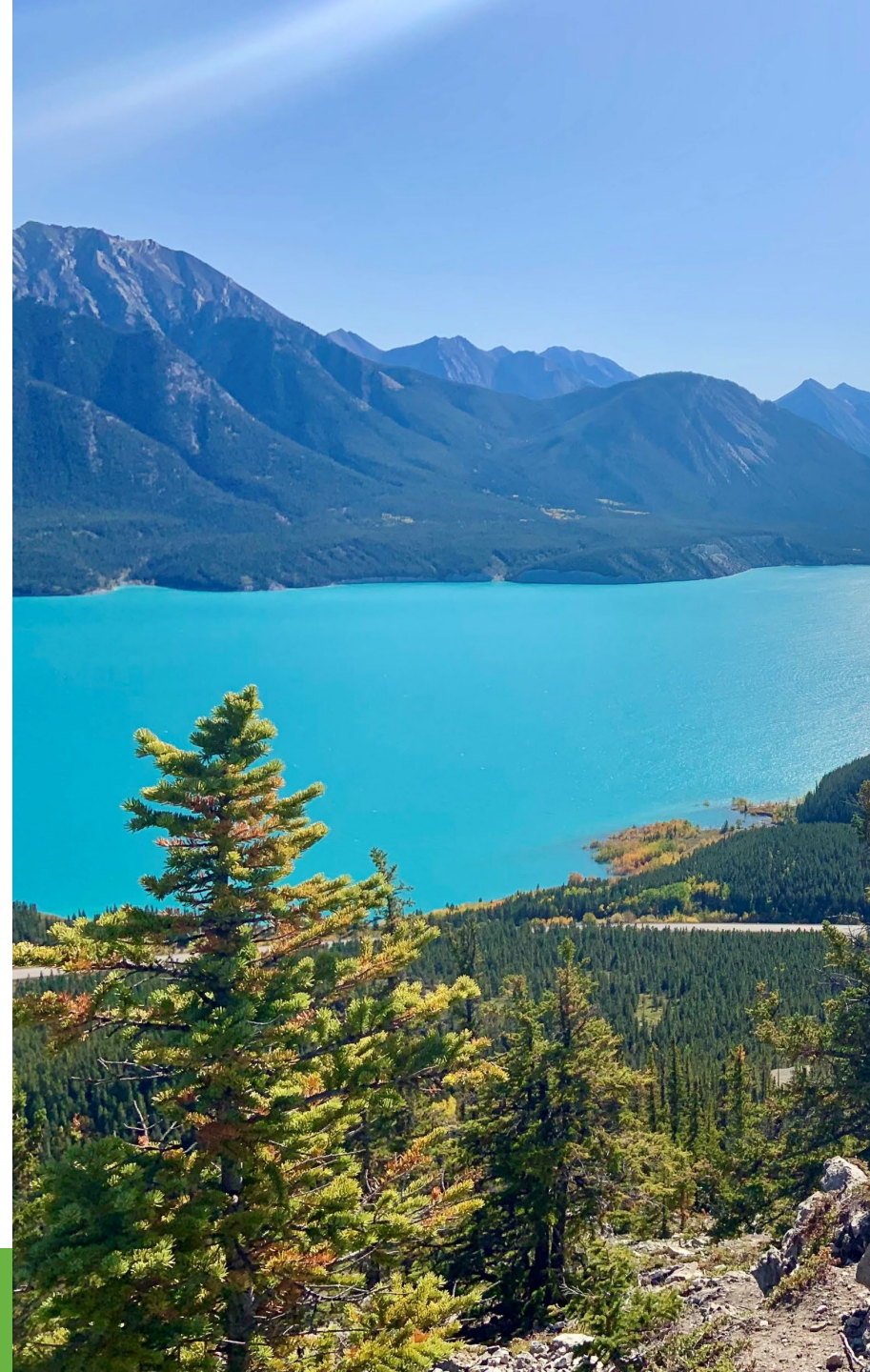
water@nswa.ab.ca



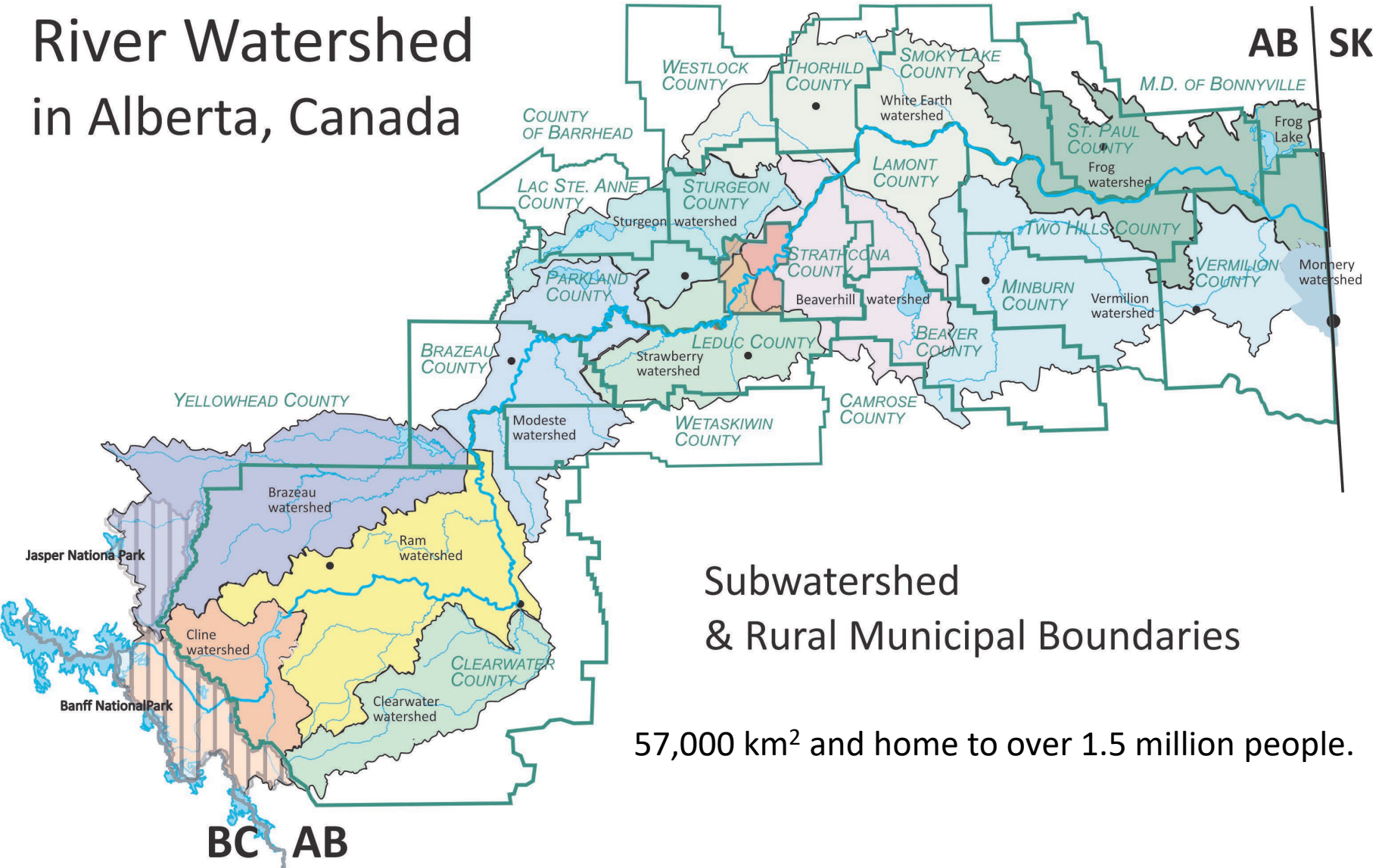
What is a watershed?



Everyone lives in a watershed - what we do on the land can be reflected in water quality and quantity.



North Saskatchewan River Watershed in Alberta, Canada

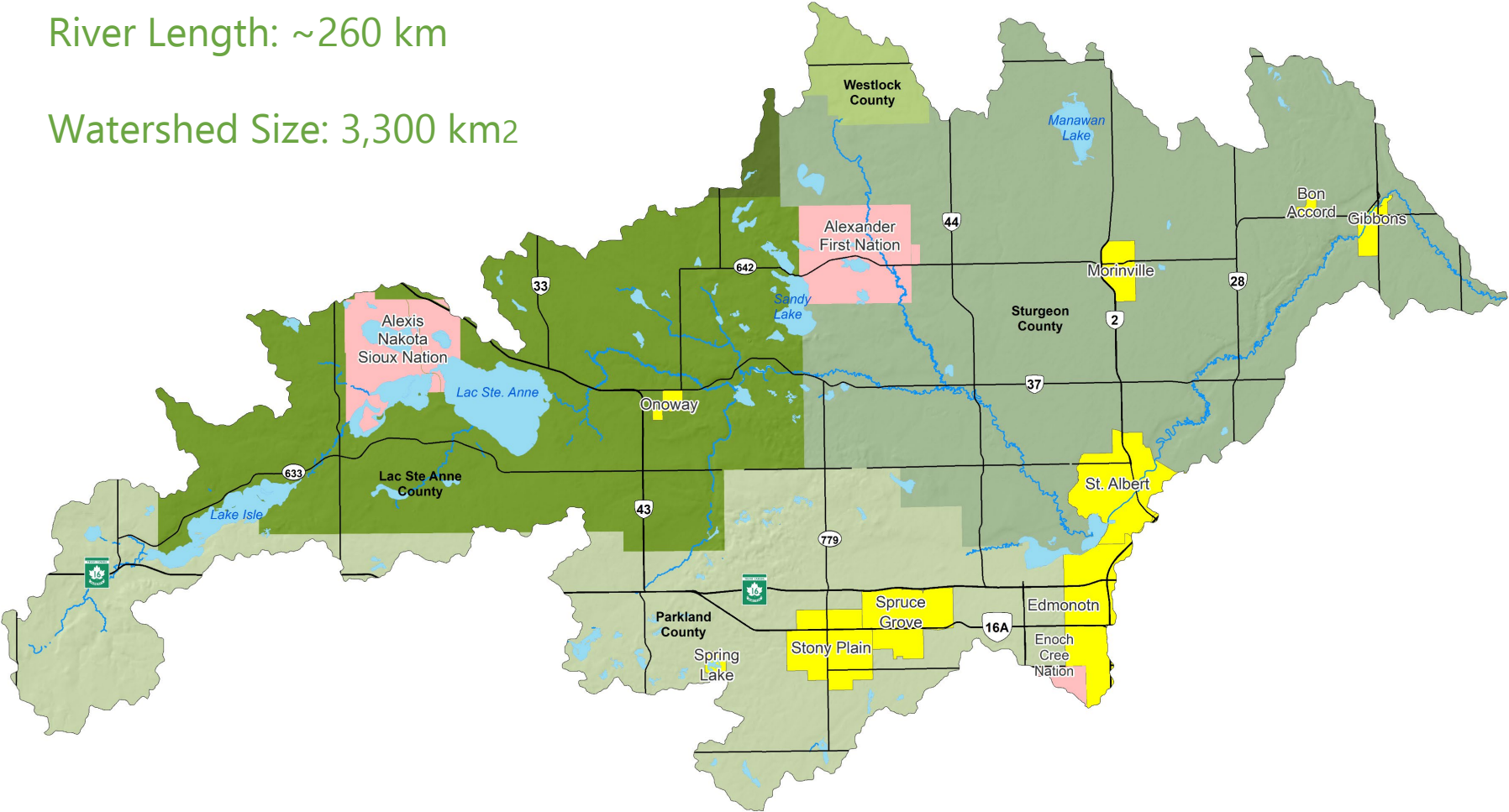


Subwatershed
& Rural Municipal Boundaries

57,000 km² and home to over 1.5 million people.

River Length: ~260 km

Watershed Size: 3,300 km²



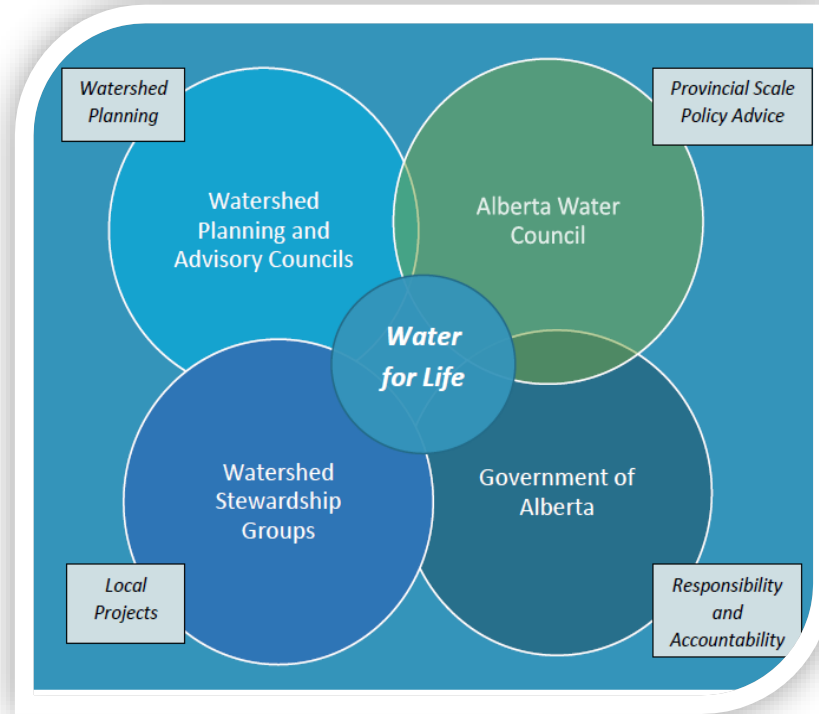
Who We Are



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Collaborative Approach Water for Life

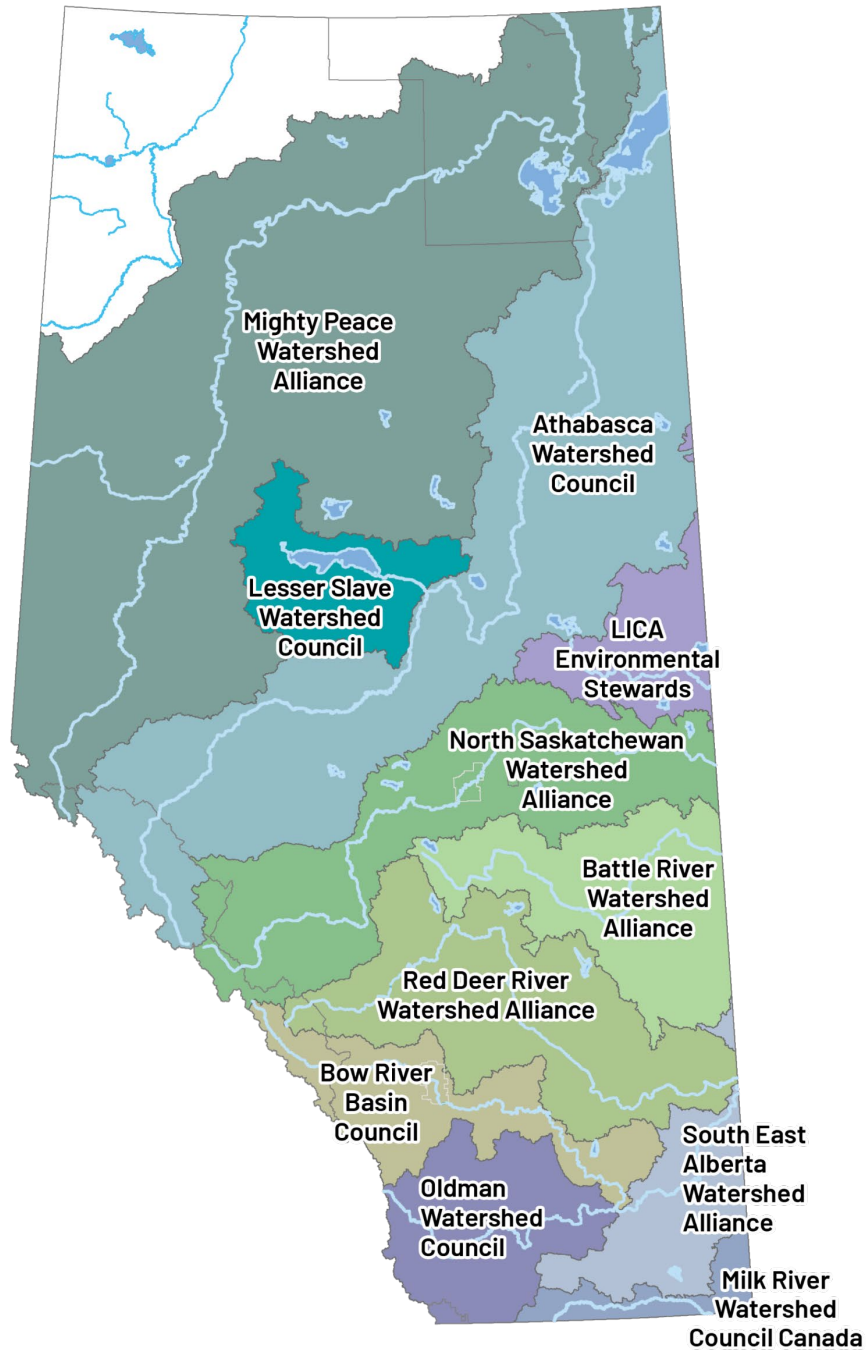


Goals:

Safe, secure drinking water.

Healthy aquatic ecosystems.

Reliable water for a sustainable economy.





NORTH SASKATCHEWAN WATERSHED ALLIANCE



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



Four Main Program Areas

- Education and Outreach
- Environmental Stewardship
- Watershed Evaluation and Reporting
- Watershed Management Planning



Lake Stewardship in the Watershed

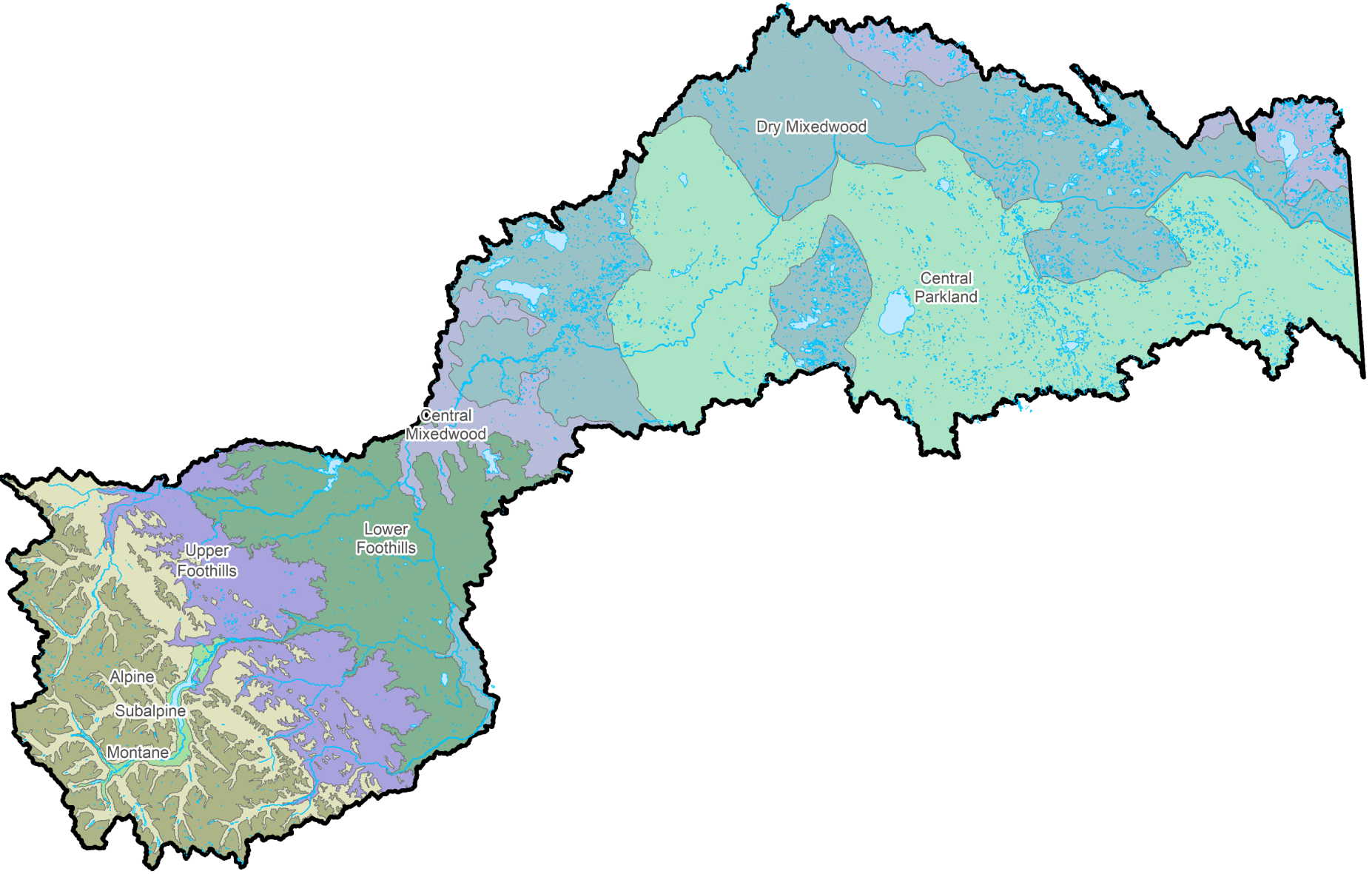


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Lake Stewardship is a Journey





Alpine

Subalpine

Montane

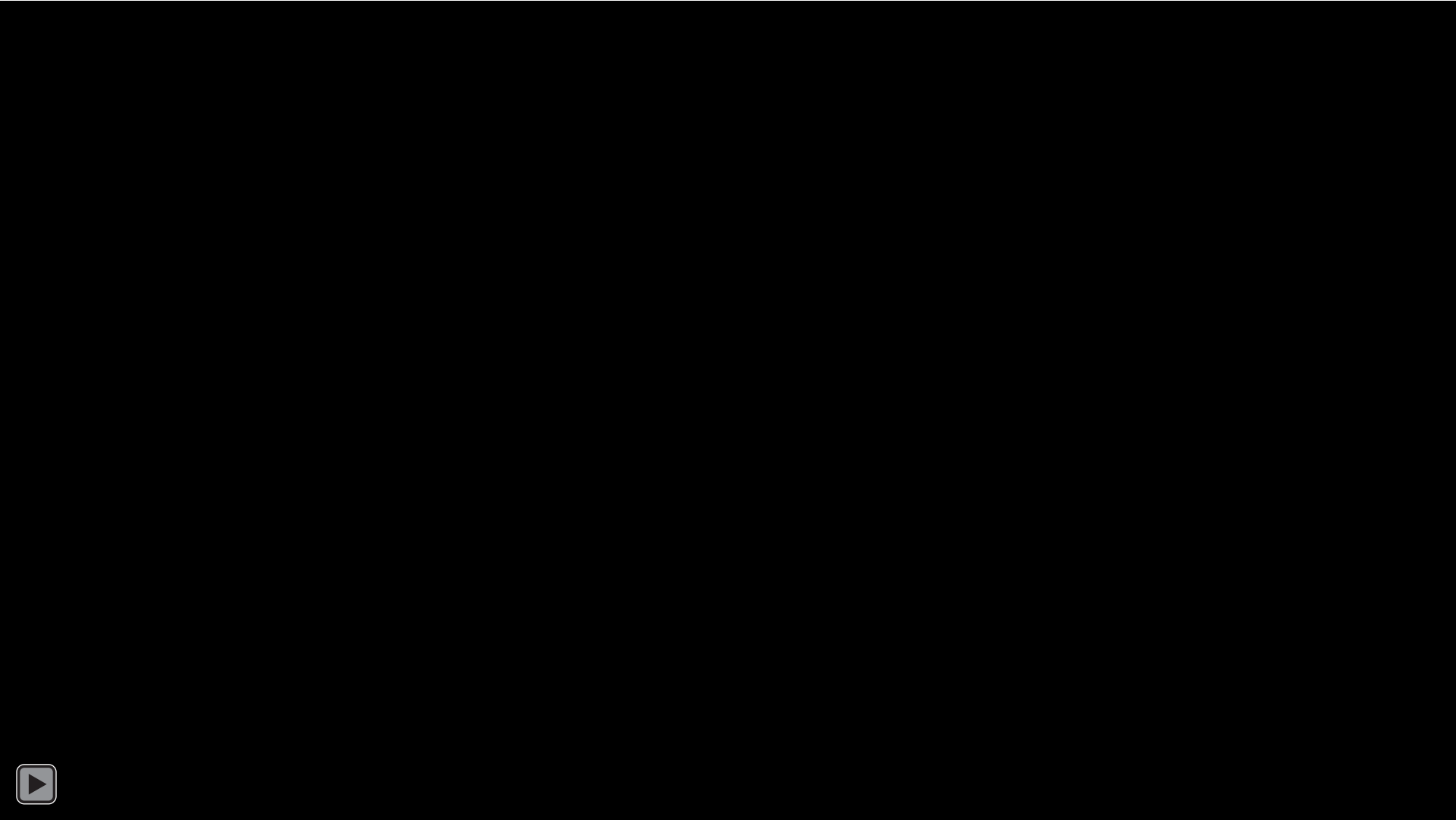
Upper Foothills

Lower Foothills

Central Mixedwood

Dry Mixedwood

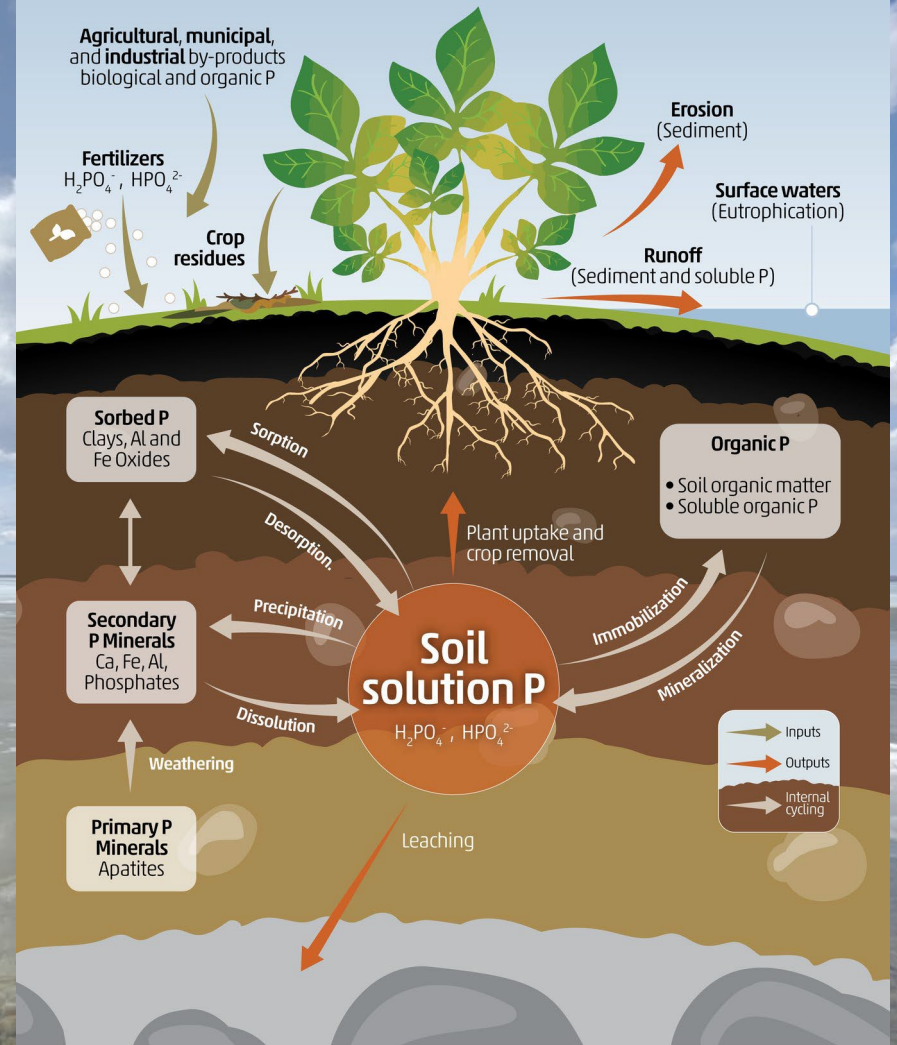
Central Parkland





Name	Average Depth (m)	Maximum Depth (m)
Spring	1.9	9.1
Jackfish	3.4	9
Isle	4.1	8
Lac Ste. Anne	4.8	9
Pigeon	6.2	9.1
Wizard	6.2	11
Wabamun	6.3	11
Mayatan	9.6	26.5
Hubbles	10	33

The P cycle in soils

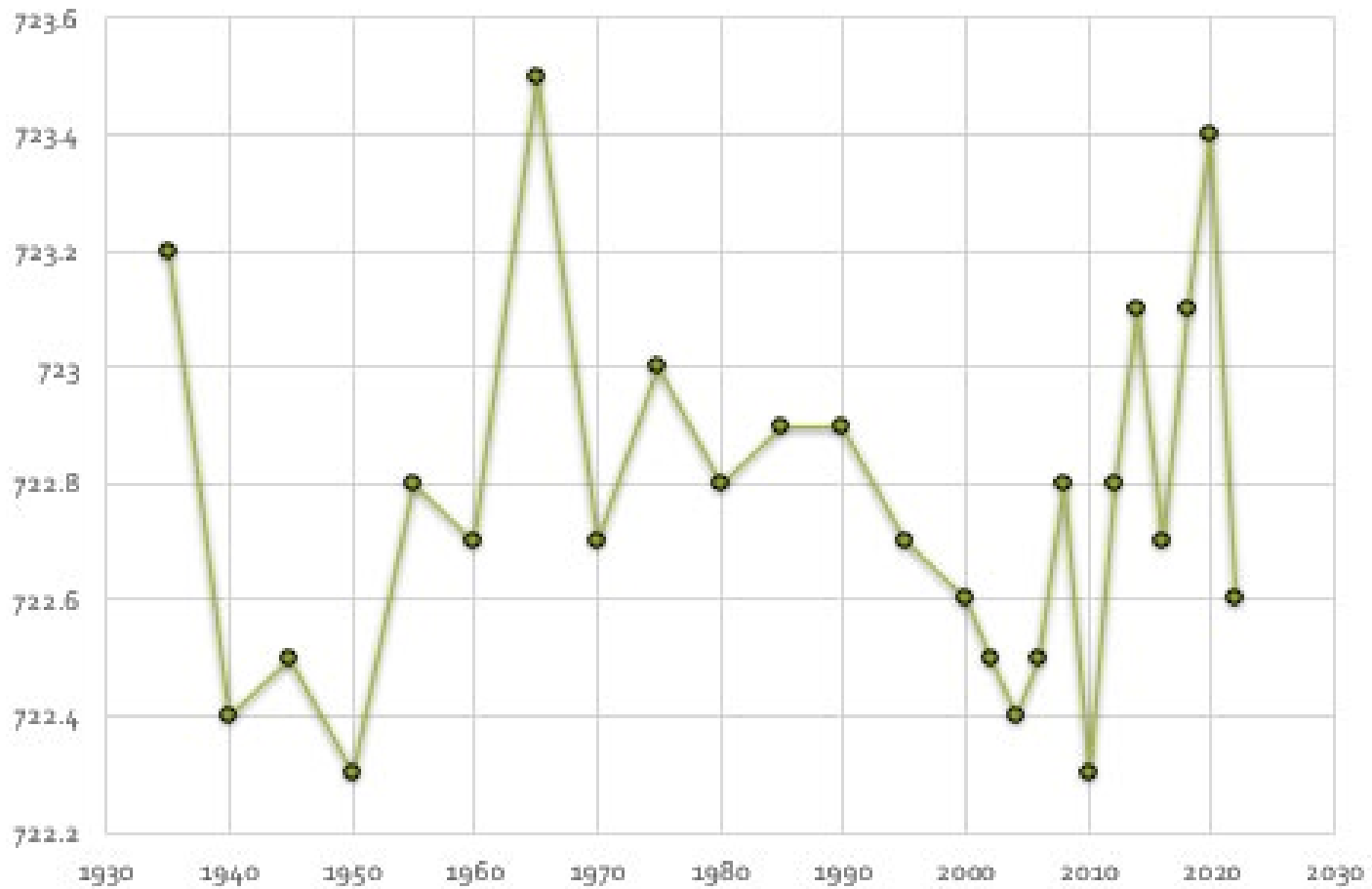


Food and Agriculture
Organization of the
United Nations



GLOBAL SOIL
PARTNERSHIP

Lac Ste. Anne Lakes Historical to Current Water Levels (m)
Station #: 05EA006 Location: Lac Ste. Anne at Alberta Beach



Alexis Nakota
Sioux Nation

Enoch
Cree
Nation

Ross
Haven

Yellowstone

Lac Ste. Anne

Castle Island

West
Cove

Sunset Point

Alberta Beach

Val Quentin

Ownership

- Federal
- Municipal
- Private
- Provincial
- Urban Areas

RIPARIAN ASSESSMENT

Riparian areas are the biologically rich and productive shoreline areas at the edges of lakes, streams, wetlands and rivers.

A GIS-based method and data set was created to assess riparian intactness (or condition) at a watershed scale, including lakeshores and streams. The riparian area was assessed for 50 metres back from the water line and given an intactness rating based on what is visible from satellite imagery.

INTACTNESS RATING

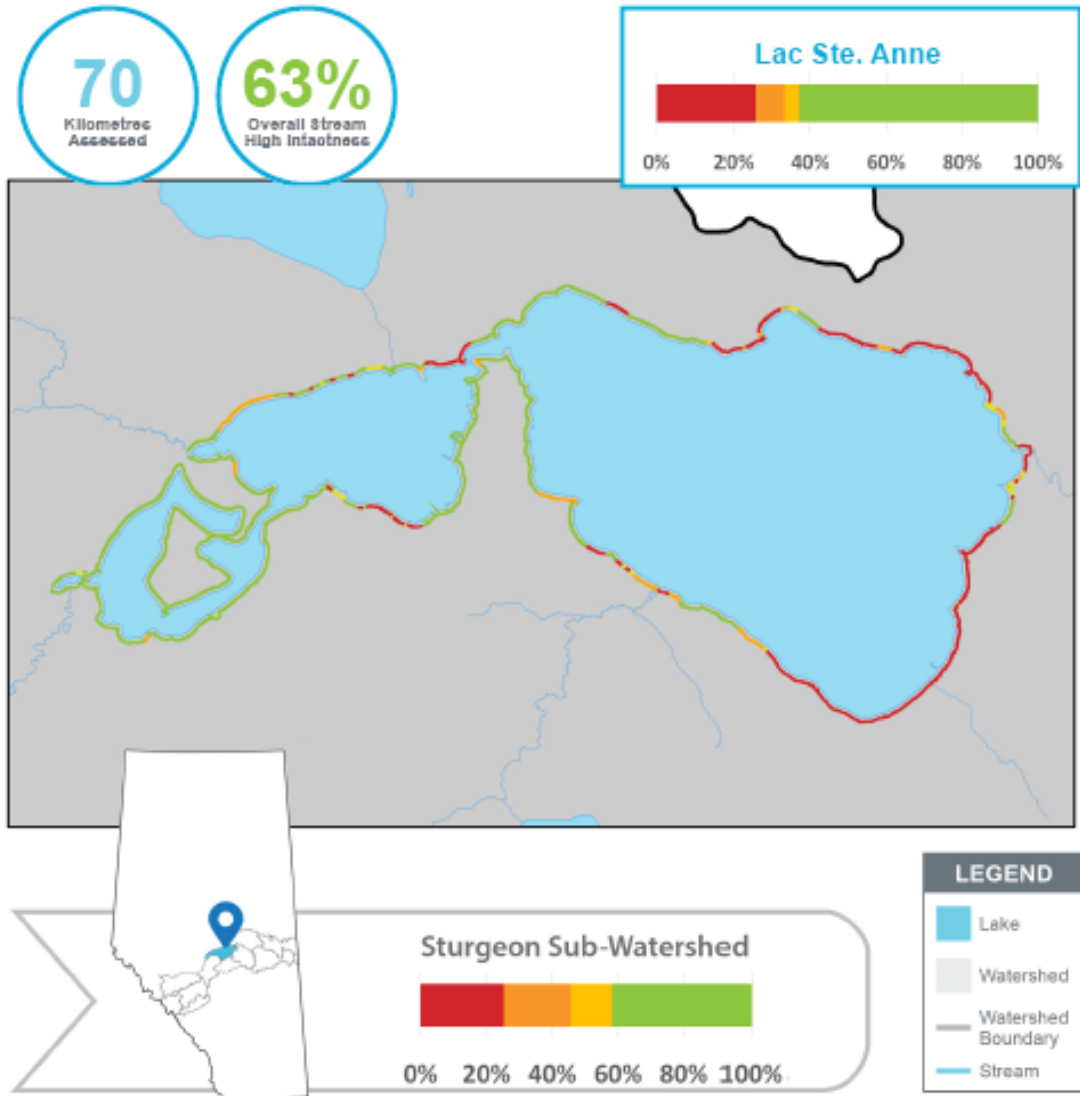
HIGH Vegetation present. Little or no human footprint.	LOW Vegetation present. Human footprint prevalent.
MODERATE Vegetation present. Some human footprint.	VERY LOW Vegetation mostly clear. Human footprint dominant.

Summary of Results

Data Year: 2020

Lac. Ste Anne's shoreline high intactness level was at 63% out of the 70.4km assessed. 3.8% was moderate, 7.5% was low, and 25.5% was considered at very low intactness. The primary land uses in the watershed are agricultural production and urban development.

Lac Ste. Anne

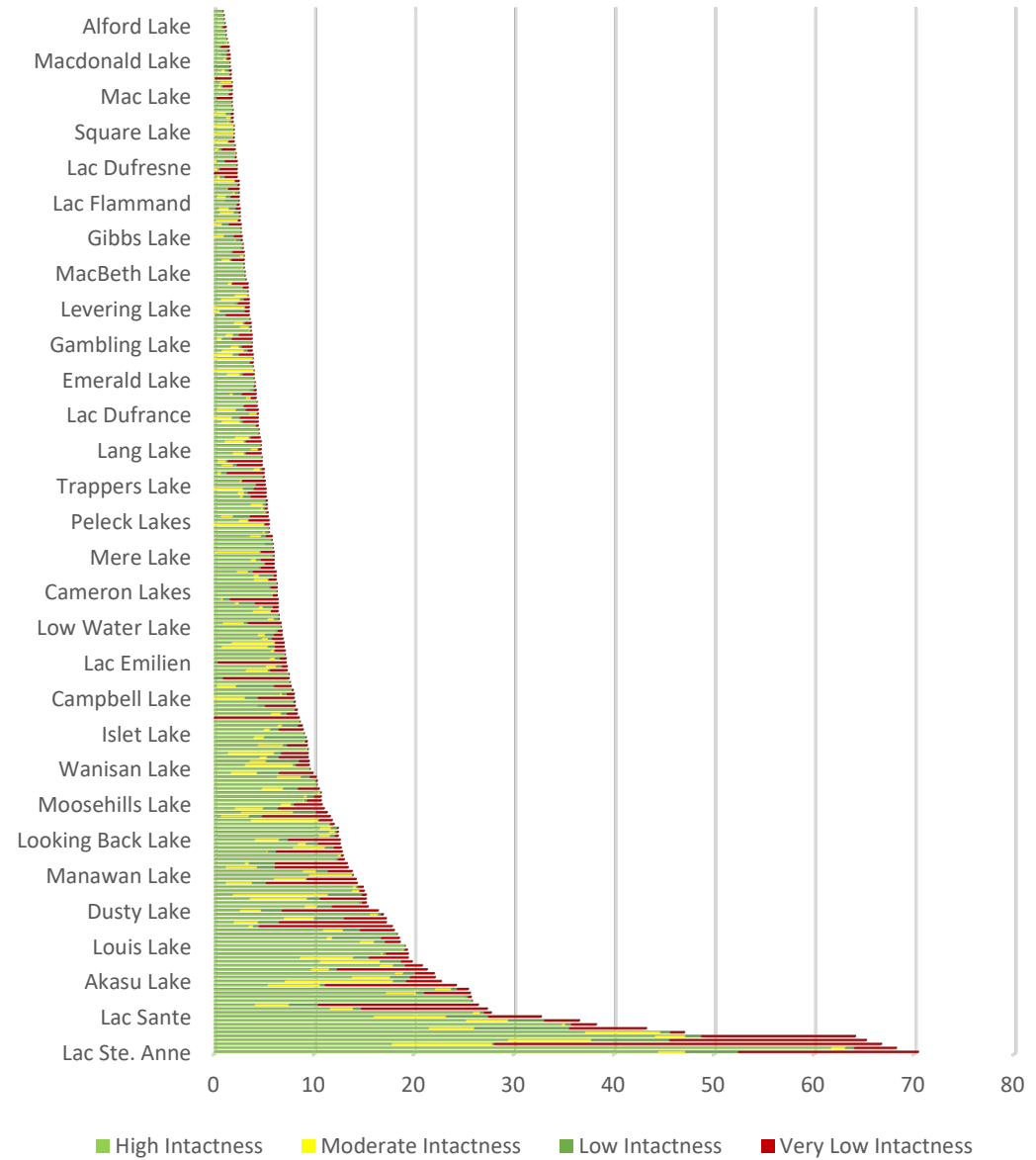


Results for Lakes

Number of Lakes = 426

Shoreline Length= 3,214 km

Average= 56% High Intact



Lake Stewardship Guidance to Get Involved

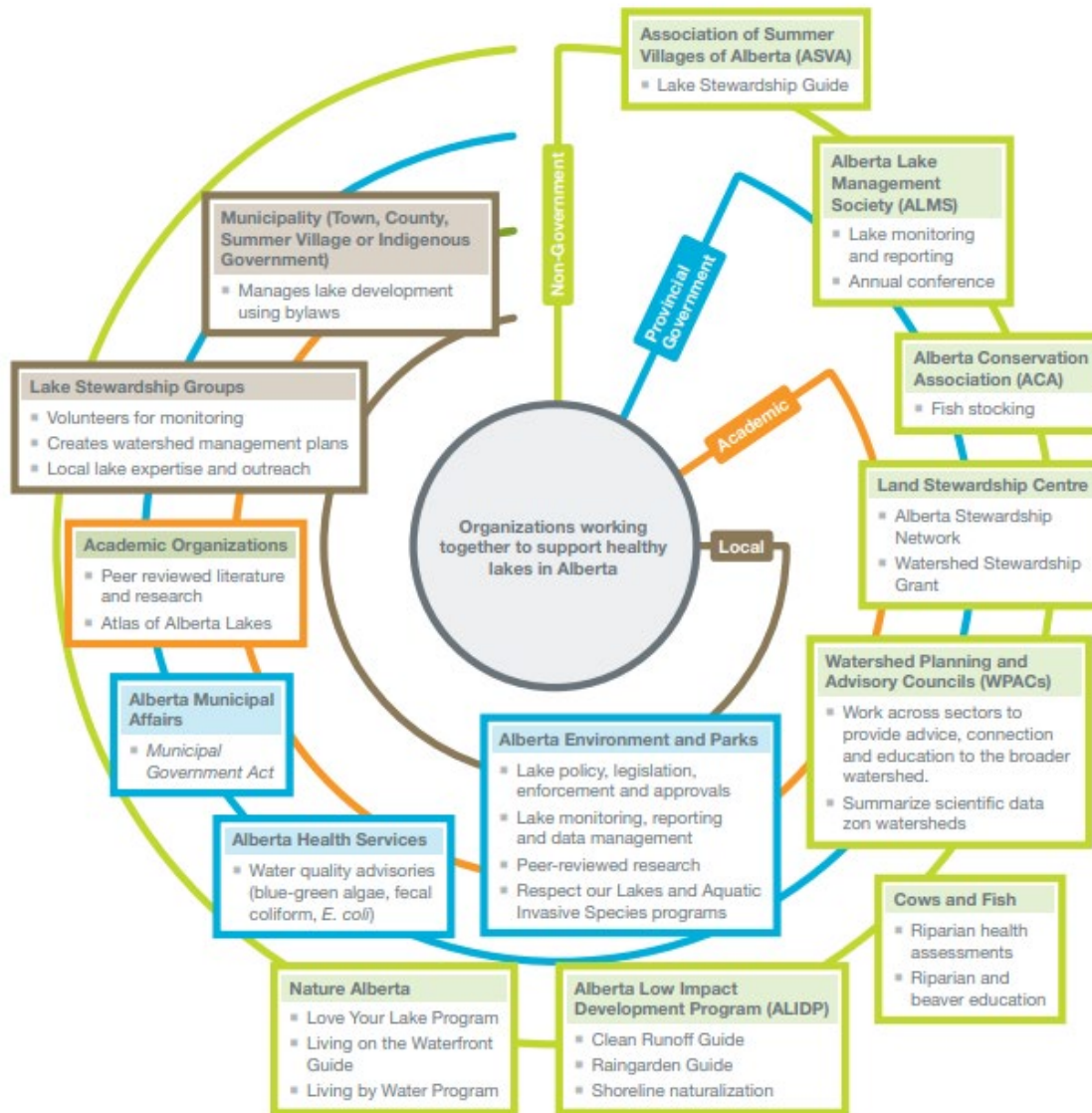


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Respect Our Lakes

Roles of Key Lake Organizations in Alberta



Watershed Stewardship Group's (WSG's) in the Watershed



Antler Lake Stewardship Committee (**State Of Watershed – 2019**)

Baptiste and Island Lakes Stewardship Society

Big Lake Environmental Support Society

Cooking Lake Study Group

Hubbles Lake Stewardship Society (**State Of Watershed – 2018**)

Jackfish Lake Management Association (**State of Watershed – 2016**)

Lake Isle and Lac Ste. Anne Water Society (**State of Watershed – 2017**)

Mayatan Lake Management Council (**State of Watershed – 2012**)

Wabamun Watershed Management Council (**State of Watershed – 2013**)

Wizard Lake Watershed & Lake Stewardship Association (**State of Watershed – 2012**)



Take on volunteer opportunities!

Agroforestry & Woodlot Extension Society

Alberta Community Bat Program

Alberta Native Plant Council

Beaver Hills Biosphere

Duck's Unlimited Canada

Edmonton and Area Land Trust

Invasive Species Council of Alberta

Land Stewardship Centre

WPAC's

+ much more!

Stay tuned for NSWA's Lake Stewardship Webpage



Municipalities and Lake Stewardship



Parkland County

- ALUS Program
- Shoreline Restoration Projects
- Waterfront Living Guide

Strathcona County

- Conservation Easements
- Wetland Replacement Program

Sturgeon County

- ALUS Program
- Tree Program
- Sustainable Riparian Management

Clearwater County

- Clear Water Landcare
 - Environmental stewardship program

Issue

- Water Quality
- Water Quantity
- Invasive Species

- Lake Information > alberta.ca
- Environmental Quality Guidelines for Alberta Surface Waters
- Real time + historical data > wateroffice.ec.gc.ca

Research + Information Gathering

Meetings

- Coordinated
- Scheduling
- Inclusive

Project Funding

- Donations
- Fundraising
- Grants

Goals + Objectives

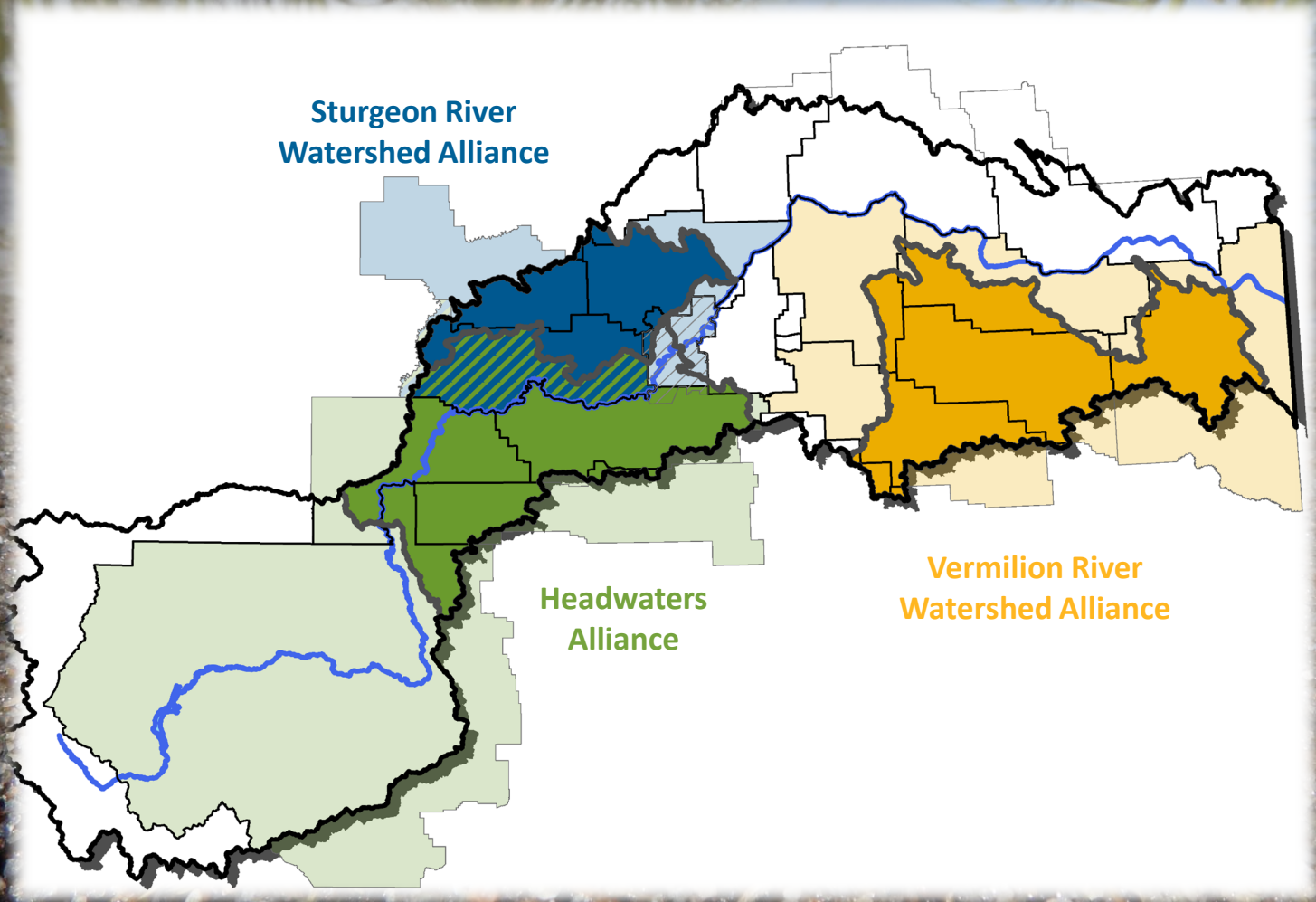
- Performance measures
- Timelines

Lake Stewardship NSWA's Role



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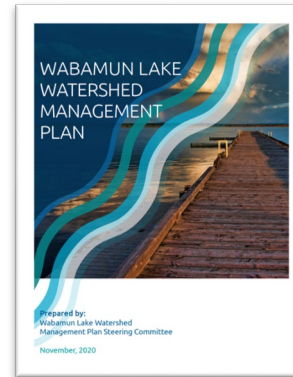
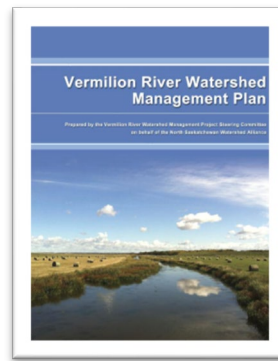
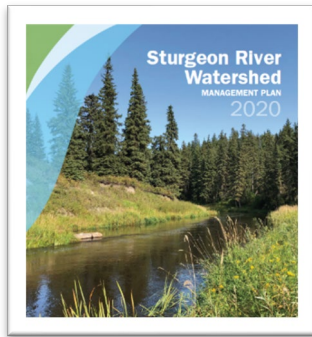


The logo for the Sturgeon River Watershed Alliance is an oval shape with a black border. Inside the oval, the text "Sturgeon River Watershed Alliance" is written in a blue, sans-serif font. Below the text are two wavy lines, one light blue and one green, representing water. The background of the slide is a photograph of a rocky shoreline with a large piece of driftwood in the foreground and a body of water in the distance under a cloudy sky. A yellow and green decorative shape is on the left side of the slide.

Sturgeon River Watershed Alliance

A municipally-supported watershed stewardship group that brings together various stakeholders throughout the watershed.

Guided by a Steering Committee (SC) of elected officials and a Technical Advisory Committee (TAC).



Municipally support watershed stewardship approach



Clear goals + performance measures



Voluntary alignment of policies and plans



Promotes interdisciplinary collaboration



Coordinates local and regional stewardship



Encourages actions to address knowledge gaps

Priority Issues in the Watershed

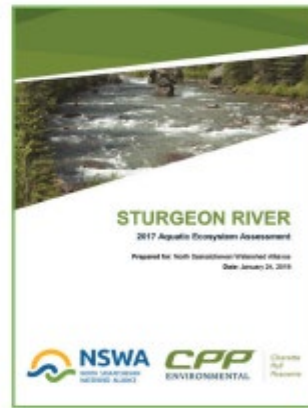
- Poor water quality due to excess nutrient and sediment inputs
- Low water levels in late summer and fall in rivers, creeks and lakes
- Impacts from extensive agriculture and rapid urbanization
- Loss of wetlands, riparian areas and other environmentally sensitive areas

Technical Reports

Several technical reports have been completed to address data gaps within the Sturgeon River Watershed. These include:

- Water Supply and Demand
- Groundwater Overview and Condition
- Natural Areas Mapping
- Riparian Areas Assessment
- Aquatic Ecosystem Health & Water Quality Assessment
- State of Lac St. Anne and Isle Lake Watersheds

To read these reports in more detail, please see:
<https://www.nswa.ab.ca/the-sturgeon-river-watershed->



Short-term priority Actions, 2020-23

- o Riparian and Wetland Conservation and Restoration
- o Water Quality Monitoring Program
- o Watershed Planning Alignment and Tools (flood risk areas, riparian setbacks, environmentally sensitive areas, overlay maps)
- o Communications and Engagement (educational forums, workshops, information resources)

Funded by
a \$200,000
Alberta
Community
Partnership
grant

Restoration + Workshops

Communications

Lake Monitoring

REGIONAL LAKE STEWARDSHIP PROJECT

Regional Support

Connecting + Collaborating





Communications

- Watershed Wednesdays
 - eDNA monitoring
 - Cumulative impacts
 - Fish population updates
 - + much more!



Instream Newsletter



Workshops

- Wetland Day
- Road Salt Management
- Educational Forums



Outreach

- Attending events
- Supporting monitoring



ANNUAL GENERAL MEETING



THE LODGE AT SNOW VALLEY

JUNE 28TH

8:30 - 3:30 MST



Thanks for listening - Stay connected!



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