

2022-2023 ANNUAL REPORT



NSWA
NORTH SASKATCHEWAN
WATERSHED ALLIANCE

VISION

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

MISSION

To protect and improve water quality, water quantity (instream flow) and the
health of our watershed by:

Seeking, developing and sharing knowledge;
Facilitating partnerships and collaborative planning; and,
Working in an adaptive management process.

PHOTOS USED IN THIS REPORT

The NSWA gratefully acknowledges the following photographers whose photos are included in this report.

Cover - Aurora - photo by Bill Trout, Images Alberta
Page 3 - Beaver - photo by Bill Trout, Images Alberta
Page 10 - Wetland - photo by Bill Trout, Images Alberta
Page 13 - Refinery - photo by Bill Trout, Images Alberta
Page 13 - Sampling - photo by Blake Stuparyk, Watershed Integrity Project
Page 15 - WaterSHED Monitoring Station, Government of Alberta
Page 15 - Wetland - photo by Steve Ricketts, Images Alberta

The remaining photos were taken by NSWA staff.



TERRITORIAL ACKNOWLEDGEMENT

The North Saskatchewan Watershed Alliance acknowledges that the traditional land on which our watershed resides is in Treaty 6 Territory, Treaty 8 Territory, and the Métis Homeland. We deeply respect and wish to honour the diverse Indigenous Peoples whose ancestors' footsteps have marked this territory since time immemorial, including the Nêhiyawak/Cree, Denesuliné/Dene, Anishinaabe/Saulteaux, Nakota Isga/Nakota Sioux, and the Niitsitapi/Blackfoot peoples. We further acknowledge this territory as the Métis homeland and the home of one of the largest communities of Inuit south of the 60th parallel.

NOTE FROM THE CHAIR

I am thrilled to present our 2022-2023 annual report, celebrating another impactful year for the NSWA. Even with the changes in staff and among the Board executive, the NSWA made significant strides forward in understanding the health of the watershed and building partnerships to take action on the basin's Integrated Watershed Management Plan.



The NSWA's achievements are a testament to the collective efforts of our passionate team and the invaluable support from individuals and organization across the watershed. As we confront the challenges posed by climate change and environmental degradation, we remain resolute in our mission and inspired by the positive change we can create together.

STEPH NEUFELD, CHAIR OF THE BOARD OF DIRECTORS

NOTE FROM THE EXECUTIVE DIRECTOR

This is my first year with the NSWA and it's been a fun-filled, yet steep learning curve to fill the shoes of the NSWA's previous Executive Director. Leah made my transition into the position easy and I credit her for setting the NSWA up for success for many years to come. Thank you Leah!

The heart of the NSWA is truly in the staff who bring such passion and dedication to bear on every project, engagement, workshop, and partnership. This year, the NSWA grew by two watershed coordinators and two watershed technicians, and so the whole organization has been learning and growing with all the new people. These people who make up the NSWA spark collaboration amongst our partners and enthusiasm amongst one another. What a great place to work! I look forward to seeing what the coming year holds.



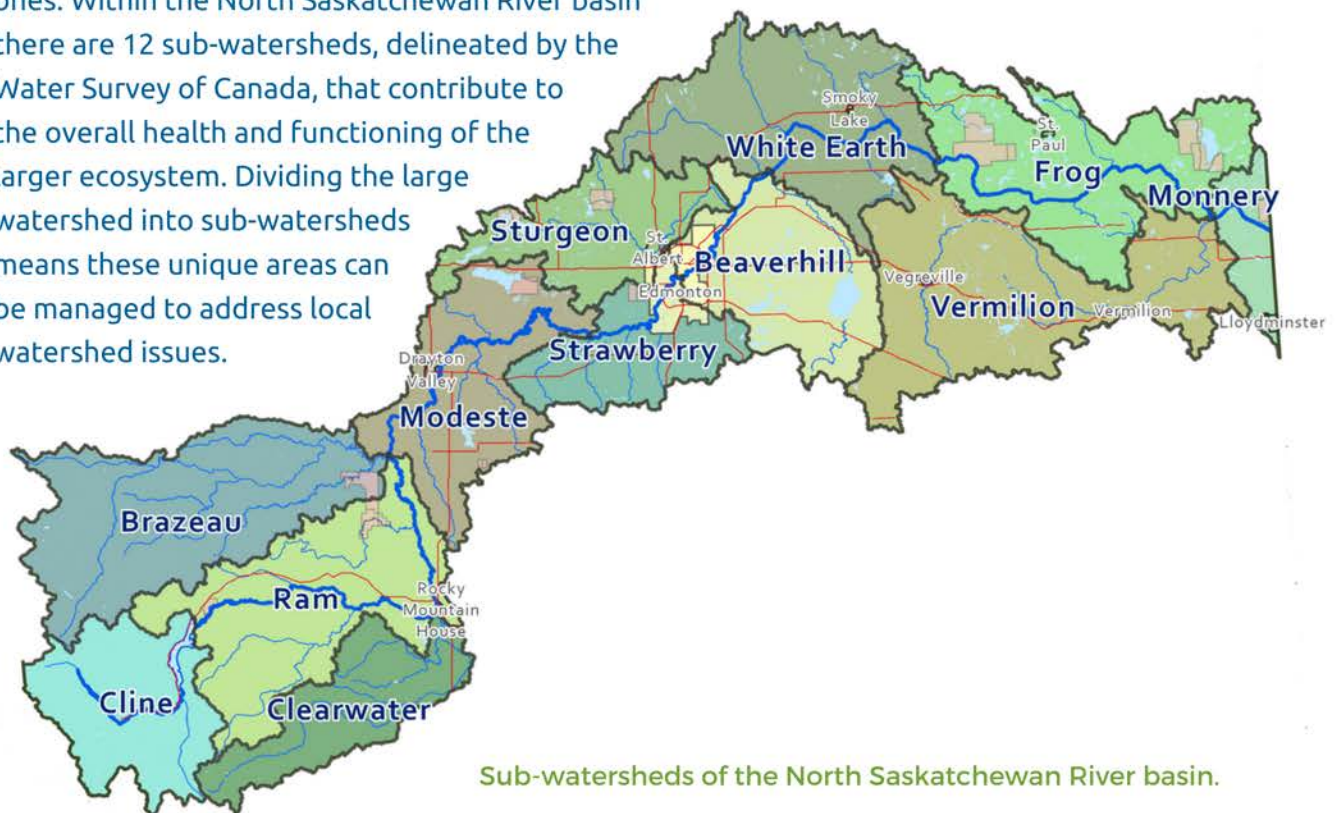
SCOTT MILLAR, EXECUTIVE DIRECTOR

THE NORTH SASKATCHEWAN WATERSHED

The North Saskatchewan River watershed is a sprawling expanse of approximately 57,000 square kilometers within Alberta. Originating in the Rocky Mountains, the river flows eastward towards the Saskatchewan border, traversing through the City of Edmonton and many smaller communities en route. Water features in the watershed include icefields, glaciers, rivers, reservoirs, lakes, wetlands, drainage districts, canals and oxbows.

This vast region is a mosaic of diverse ecosystems, supporting a wide range of flora and fauna. Moreover, the North Saskatchewan River watershed is a critical resource for both human and non-human inhabitants, serving as a primary source of water for people, agriculture, industry, and wildlife. The complex dynamics of this intricate system require a multidisciplinary approach to stewardship, management, conservation, and protection.

Watersheds form a nesting pattern, with smaller ones (called sub-watersheds) draining into larger ones. Within the North Saskatchewan River basin there are 12 sub-watersheds, delineated by the Water Survey of Canada, that contribute to the overall health and functioning of the larger ecosystem. Dividing the large watershed into sub-watersheds means these unique areas can be managed to address local watershed issues.



Sub-watersheds of the North Saskatchewan River basin.

ABOUT THE NSWA

The North Saskatchewan Watershed Alliance (NSWA) is a non-profit, multi-stakeholder organization dedicated to promoting the health and sustainability of the North Saskatchewan River and its watershed.

Under the Alberta *Water for Life* strategy, the NSWA carries the responsibility of developing and then encouraging voluntary implementation of an integrated watershed management plan. Implemented through collaboration and community engagement, the plan sets out the actions needed to protect and enhance the quality of water and the health of aquatic ecosystems within the watershed, while also supporting the social and economic well-being of the region.

NSWA Strategic Goals



NSWA STAFF

Left to right: Leah Kongsrude, Kaila Belovich, Jill Peterson, Elisa Brose, Mary Ellen Shain, Rosey Radmanovich, Brad Tyssen, Kelsie Norton, Ellen Cust, Scott Millar, Michelle Gordy





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THANK YOU TO OUR FUNDERS

We are grateful to the many supporters of the NSWA. We would not be able to facilitate partnerships, complete studies, or share knowledge in our watershed without the time and resources provided by our generous contributors.

We acknowledge the **Government of Alberta** for providing a multi-year operational grant and important contributions from **EPCOR** and **43 municipalities** in our watershed. We are also grateful for a 3-year operational grant provided by the **Edmonton Community Foundation**.



COUNTIES

Brazeau County
Clearwater County
County of Minburn
County of Two Hills
County of Vermilion River
Lac Ste Anne County
Leduc County
Parkland County
Smoky Lake County
St. Paul County
Strathcona County
Sturgeon County

CITIES

Edmonton
Fort Saskatchewan
St. Albert
Spruce Grove

TOWNS

Bruderheim
Calmar
Devon
Drayton Valley
Gibbons
Onoway
Rocky Mountain House
Smoky Lake
St. Paul
Thorsby
Two Hills
Vegreville
Vermilion

VILLAGES

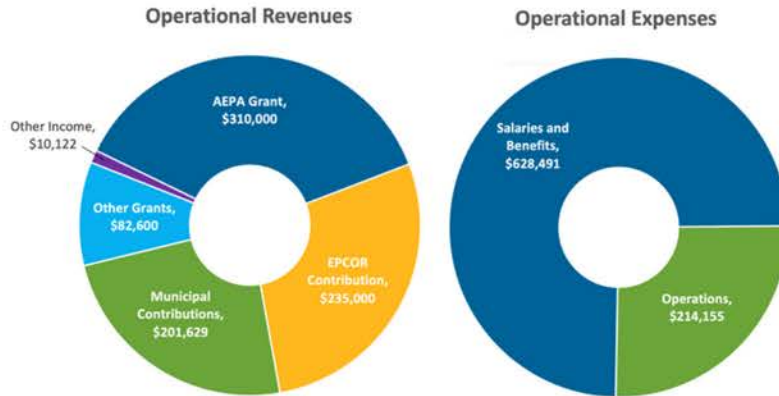
Alberta Beach
Breton
Chipman
Innisfree
Spring Lake

SUMMER VILLAGES

Betula Beach
Horseshoe
Kapasiwin
Lakeview
Ross Haven
Seba Beach
South View
Sunset Point
West Cove
Yellowstone

FINANCIAL SUMMARY

OPERATIONAL FUNDING



You can find a full copy of the NSWA 2022-2023 Audited Financial Statement on our website under Our Society.

The NSWA receives core operational funding from:

- An operating grant from the Government of Alberta
- A contribution from EPCOR Water Services Canada
- Municipal contributions equivalent to \$0.50 per capita
- An operational grant from the Edmonton Community Foundation

PROJECT FUNDING

The NSWA applies for grants from federal, provincial, and private grant programs for watershed project-specific work such as technical studies and on-the-ground restoration projects.



HEADWATERS ALLIANCE

Partnerships

The **Headwaters Alliance** is a municipally-led watershed stewardship group that works in partnership with the NSWA. Formed in 2014, the Alliance is guided by a Steering Committee of elected officials and a Technical Advisory Committee of technical staff and volunteers. Rosey Radmanovich took over as the coordinator of the Headwaters Alliance in June 2022.



STRATEGIC PLANNING

There was much changeover for the Headwaters Alliance in 2022. Many of the Steering Committee members were newly elected to their council positions and new to the Alliance. The Headwaters coordinator and others from NSWA introduced the work of the NSWA and Headwaters Alliance by delivering customized presentations to each member municipal council and with one-on-one orientation sessions.

The addition of a new Coordinator and many new Alliance members also drove a need to reflect on the Alliance's strategic plan and identify new opportunities that could be reflected in the work of the Headwaters Alliance.

ADVANCING THE RIPARIAN HEALTH ACTION PLAN

Numerous municipalities in the Headwaters region have changed their municipal policies or Municipal Development Plans to include protection and consideration of riparian areas.

The City of Beaumont Environmental Master Plan is one example that identifies goals that explicitly focus on protection and improvement of riparian areas.

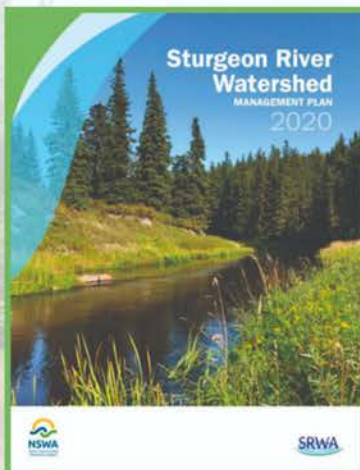
STURGEON RIVER WATERSHED ALLIANCE

Partnerships

The **Sturgeon River Watershed Alliance (SRWA)** includes a Steering Committee of elected officials and a Technical Advisory Committee of municipal staff, non-governmental organizations, and technical experts. In June 2022, Kelsie Norton took on the role of SRWA Coordinator.



MANAGEMENT PLAN IMPLEMENTATION



The SRWA has been focusing on key action items from the 2020 Watershed Management Plan with support from an **Alberta Community Partnership Grant**. Key focus areas are aligning policy and planning efforts and building planning tools for achieving the target of 65% riparian intactness.

Currently, a *Best Management Practices Guide for Riparian Intactness* is being developed with contract support from Municipal Planning Services. The guide will be based on a review of land use bylaws and policies that guide development near riparian areas within the North Saskatchewan River watershed.

WATER QUALITY MONITORING

- Tetra Tech Canada designed and implemented a repeatable two-year water quality sampling program for the Sturgeon River Watershed.
- A water quality summary report was produced from sampling data collected in 2021 (spring and summer). The water quality data will be accessible through the open-access DataStream portal.

EDUCATION AND OUTREACH

- Wetland Day Forum - September 2022
- Road Salt Management Workshop - February 2023



VERMILION RIVER WATERSHED ALLIANCE

Partnerships

The **Vermilion River Watershed Alliance (VRWA)** is a local nonprofit group with members from local towns and counties, federal and provincial governments, conservation groups, and the general public. In partnership with the NSWA, the VRWA works to advance the health of the Vermilion River watershed and the surrounding areas. In June 2022, Rosey Radmanovich took on the role of coordinator for the VRWA.



TOWN OF VERMILION ECO-BUFFER



In September 2022, VRWA partnered with the Agroforestry and Woodlot Extension Society (AWES) and Lakeland College to plant two riparian eco-buffers sites within the Town of Vermilion.



The planting day brought together 23 volunteers from the community to plant over 1200 seedlings and plants at two separate sites. It is anticipated that educational signage will be installed at both sites to describe the eco-buffers and how they help to improve watershed health.

EDUCATION AND OUTREACH

VRWA and NSWA supported the **County of Vermilion River's Wetland Adventure Day** at the Hazeldine Campground in August. Attendees learned about watersheds, wetlands, and participated in a pond dipping activity to learn about the bugs that live in wetlands.

For the second year, the VRWA hosted the **Buggin' Out Down by the River** event with the Vermilion Public Library on July 22. Kids had a great time learning about watersheds, the Vermilion River, pond dipping, and identifying and learning about benthic macroinvertebrates.



ADVISORY SUPPORT



fRI Research WATER & FISH PROGRAM ACTIVITY TEAM

NSWA joined the Water & Fish Program by FRI Research which aims to ensure that stakeholders are provided with scientifically-credible and relevant information to pursue environmental excellence in the Eastern Slopes region of the province. The program works to develop research and tools, mobilize knowledge, and provide training opportunities. The NSWA brings a unique watershed perspective, provides advice, and supports the development of research questions and proposals.

NSWA attended a workshop in Spring 2022 that brought together researchers and experts from across Canada to discuss the state of research and modelling to guide forest management in the Eastern Slopes, developing remote sensing tools, and providing education opportunities.

DESIGNATED INDUSTRIAL ZONE (DIZ)

The Designated Industrial Zone (DIZ) in Alberta's Industrial Heartland is an ongoing Government of Alberta initiative that will establish a new regulatory framework specific to the industrial area in the central portion of the watershed. NSWA continues to be a partner in the collaborative working group to advance the DIZ program.



This year NSWA participated in several working groups, hosted by Alberta Environment and Protected Areas resulting in the release of the **Industrial Heartland Designated Industrial Zone Framework** and the **Industrial Heartland Designated Industrial Zone Water Quality Management Program**, among others.

WATERSHED INTEGRITY PROJECT



The NSWA proudly supports a project involving the **University of Alberta, Government of Alberta, and Alberta Innovates** to develop a comprehensive geospatial tool for assessing watershed integrity and aquatic ecosystem health in the North Saskatchewan River basin. The project is developing a geospatial model built on a number of environmental, climate, and stressor indicators, with plans to validate the model against field data collected across the watershed.

RIPARIAN WEB PORTAL RIPARIAN HEALTH ACTION PLAN

Basin-wide Projects



This was a spectacular year for the Riparian Web Portal! In June 2022, the achievements of the Web Portal were recognized with an **Alberta Emerald Award**. The award was presented by the Alberta Government and came with a \$2,000 donation. The Web Portal was also a finalist for the Canadian Water's Next Award, and was featured in WaterCanada Magazine, which boasts a readership of 72,000 people across Canada.

Over the past year, NSWA co-hosted nine "ambassador" training sessions of the **Riparian 101 and 102 workshops** with **190 participants**. We also hosted a special session with Sturgeon County, where council members and operational staff participated in brainstorming riparian solutions.



LAKELAND COLLEGE CONTEST

The NSWA hosted a special contest in partnership with Lakeland College that was suggested by Nicole Nodorozny, an Executive member of the VRWA and Lakeland College instructor. Students in the environmental program were partnered with conservation project managers from across the province to build compelling stories from real on-the-ground restoration projects for display on the Riparian Web Portal.



RIPARIAN VIDEO SERIES

The NSWA and Battle River Watershed Alliance developed a 5-part video series on riparian management with a special message from Canadian astronaut **Dr. Robert Thirsk, (Canadian Space Agency, ret.)**.

WATERSHED PROJECTS

STATE OF THE WATERSHED UPDATE

- The NSWA is renewing the *State of the Watershed* indicators and assessment for the North Saskatchewan River watershed.
- The project will build upon the previous 2005 assessment, but will integrate new data sets, and a broader suite of indicators and metrics.
- Expertise and input from local stakeholders, sub-watershed alliances, and the Board will be integral to the new State of the Watershed report.



REGIONAL LAKES STEWARDSHIP PROJECT



- NSWA has received multi-year funding from Pembina Pipeline's Community Investment Program to complete our Regional Lake Stewardship Project.
- A collaborative, community approach is needed because lake management issues such as water quantity, water quality, erosion, and riparian degradation are interconnected and complex.
- The project will focus on lakes with a regional lens, looking at communications, restoration opportunities, supporting monitoring, and providing educational workshops.

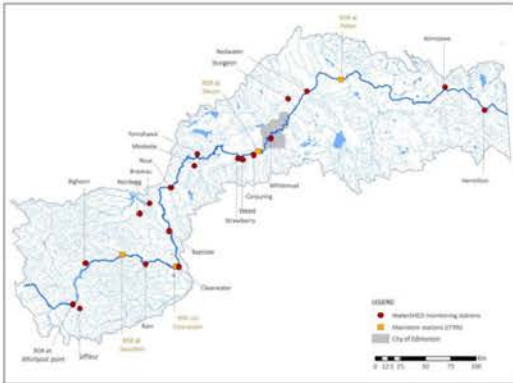
WETLAND MANAGEMENT STRATEGY

- Together with the subwatershed alliances and other watershed partners, the NSWA has developed the **Strategy to Improve Wetland Management for the North Saskatchewan River in Alberta.**
- The strategy aims to increase the number of wetlands, improve the overall condition of wetlands, and improve ongoing wetland management.
- As part of the strategy, the NSWA is offering a Wetland Education Sponsorship to elevate the capacity of partners to conserve wetlands and drive restoration initiatives in the watershed.



WATERSHED PROJECTS

WATERSHED MONITORING PROGRAM



- The WaterSHED Monitoring Program is a unique partnership between Alberta Environment and Protected Areas, EPCOR, North Saskatchewan Watershed Alliance, and the City of Edmonton.
- By coordinating resources, this collaborative partnership has created the North Saskatchewan River's most comprehensive river monitoring program.
- It encompasses 20 monitoring stations from the headwaters of the North Saskatchewan River to the Saskatchewan Border.

WABAMUN WATERSHED MANAGEMENT

- The work to implement the **Wabamun Watershed Management Plan (WWMP)** is a collaboration between watershed stakeholders, governments, and other key partners.
- The WWMP provides long-term direction for Wabamun Lake watershed management, consistent with the goals of *Water for Life: Alberta's Strategy for Sustainability* (2003).
- Implementation of the WWMP will be achieved through the voluntary choices and actions of stakeholders.



NATURAL ASSETS MANAGEMENT



- NSWA began work to define a Natural Assets project for the watershed by connecting with key partners such as:
 - International Institute for Sustainable Development
 - Natural Assets Initiative
 - Parkland County
 - City of Edmonton
 - Edmonton Metropolitan Region Board

EDUCATION AND OUTREACH

A key role for the NSWA is sharing knowledge and information on the North Saskatchewan River watershed. This year, the NSWA participated in many community events and workshops, including a community event for Newcomers to Edmonton, canoe trips, family programs, pond dipping parties, and farmers markets. Lake sampling with ALMS was also a highlight. These events afforded the NSWA opportunities to meet people from the watershed community, share information, and answer lots of questions.

ALBERTA WATERSHED VIDEO SERIES

NSWA received a \$75,000 multi-year Community Investment (CARE) grant from Plains Midstream Canada to create a series of five short, animated videos about Alberta's watersheds. The final year of the project is here, and the videos are nearly complete. Keep an eye on NSWA's social media, newsletter, and YouTube channel for links and updates to the videos.



EDUCATION AND OUTREACH

WATERSHED WEDNESDAY WEBINARS

A series of six online Watershed Wednesday webinars were held in the Fall of 2022 and the Spring of 2023 with over 300 participants. The series included international experts in freshwater health and natural infrastructure and many great speakers from within Alberta. We experimented with an interview style conversation and heard some positive feedback. Past webinars are available on the NSWA YouTube channel.



INSTREAM NEWSLETTER & ANNUAL CALENDAR



The NSWA monthly newsletter keeps 900+ subscribers informed about events, projects and partner information. In 2023 we added new features including blog posts, arts and culture, and feature articles. Anyone can sign up for the newsletter on the NSWA website (nswa.ab.ca). The 2023 calendar was published and distributed to municipal leaders, MLAs, and other partners in the watershed.

SOCIAL MEDIA HIGHLIGHTS

NSWA continues to expand our social media influence. Highlights included a coordinated social media campaign with **EPCOR's #glassofthesask** promotion with a paddle package prize from **Paddle Station**. We featured a similar prize promotion in the winter, with the prize of lift passes provided by **Snow Valley Ski Club**.



SOCIAL MEDIA FOLLOWING

Twitter: 2825
Facebook: 1065
Instagram: 906
LinkedIn: 925





NSWA
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WATERSHED ALLIANCE

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SOCIAL MEDIA



NorthSaskRiver



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