

Village of Innisfree
Regular Council Meeting
Innisfree Council Chambers
September 23, 2019 @ 7:00 p.m.



AGENDA ADDITIONS

New Business:

- 7 F – [NSWA Letter and Report dated September 12, 2019](#)
- 7 G – [Water and Wastewater Operator Certification – Small Systems](#)

Closed Session:

- A. **Land (FOIPP Section 17 & 27)**
 - i. [Plan 4175R, Block 6, Lot\(s\) 4-6 – Proposed “Change in Use”](#)

202, 9440 49 Street, Edmonton, AB T6B 2M9 | NSWA.AB.CA

September 12, 2019

Mayor Aaron Cannan
Village of Innisfree
PO Box 69
Innisfree AB T0B 2G0

RE: Municipal Contribution to NSWA

Dear Mayor Cannan,

I am pleased to provide a copy of the North Saskatchewan Watershed Alliance (NSWA) 2018-19 Annual Report, which summarizes the projects and collaborative partnerships that NSWA has conducted in your watershed during the past year. This important work was accomplished thanks to the generous support of over 40 municipalities in our shared watershed. We would again appreciate positive consideration by your Council for a \$0.50 per capita contribution to NSWA for 2020.

In addition to financial contributions from individual municipalities, our non-profit alliance depends on an annual operating grant from the Government of Alberta and contributions from EPCOR. More information about the NSWA, our bylaws, finances and projects can be found online at www.nswa.ab.ca.

How your financial contribution benefits your community

In 2005, Alberta Environment appointed NSWA as the Watershed Planning and Advisory Council for the North Saskatchewan River (NSR) basin under *Water for Life: Alberta's Strategy for Sustainability*. NSWA has made significant progress under this mandate, and in 2012 released an Integrated Watershed Management Plan (IWMP) for the North Saskatchewan River basin. This major undertaking provides advice and direction to protect the long-term supply and quality of water resources for future generations. IWMP implementation is now underway through strategic watershed partnerships with local municipalities and stewardship groups.

NSWA partners with individual municipalities and three sub-watershed alliances to assess local watershed conditions and issues, coordinate inter-municipal projects, and develop harmonized land policies to support long-term sustainability of watershed resources. NSWA also provides technical expertise, grant application support, consultant coordination and facilitation services for meetings and workshops.

NSWA, in collaboration with its regional partners, successfully applied for over \$2.0 million worth of provincial and federal grants to support municipalities and local stewardship groups. See the attached table for some examples of current watershed projects that NSWA is facilitating with local municipalities.

NSWA is helping to address many local watershed management issues including:

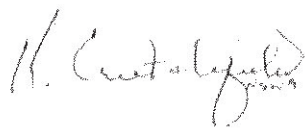
- Riparian and wetland habitat conservation and restoration
- River and creek hydrology studies
- Natural areas and groundwater recharge areas protection
- Fisheries habitat and aquatic health assessments, including invasive species issues
- Long term impacts of land use changes on watershed health
- Best management practices and planning policies related to riparian, wetland and natural area protection, stormwater management and flood protection and water conservation.

NSWA is also involved in many major intergovernmental projects such as the North Saskatchewan Regional Land Use Framework, Edmonton Metro Region Growth Plan, Industrial Heartland Water Management Framework and EPCOR's Drinking Water Protection Plan. This involvement, plus its close working relationship with many Alberta government agencies, allows NSWA to connect municipalities such as yours with the best resources to address watershed issues.

NSWA would be pleased to discuss any watershed issues of concern to your municipality and to provide a briefing if requested by your Council or Administration. If an elected municipal representative would like to serve on the NSWA Board of Directors, there will be an opportunity at the 2020 NSWA Annual General Meeting for the election of new board directors.

Please feel free to contact NSWA's Executive Director, Ms. Leah Kongsrude at 587-525-6827 or leah.kongsrude@nswa.ab.ca in this regard. Ms. Kongsrude has over 30 years' environmental experience including ten years in municipal government and appreciates the challenges and opportunities that municipalities face with local watershed management issues.

Thank you for your consideration. We have taken the liberty of enclosing an invoice.



Mr. Ken Crutchfield, President
North Saskatchewan Watershed Alliance Society

Cc: Chief Administrative Officer

Attachments: Examples of current NSWA Coordinated Watershed Studies
Invoice for 2020 Contribution to NSWA

Examples of current NSWA Coordinated Sub-Watershed Projects

SUB-WATERSHED	MAJOR WATERBODIES	MUNICIPALITIES	PROJECTS
Headwaters	North Saskatchewan River Cline River Clearwater River Ram River Brazeau River Modeste Creek Strawberry Creek Wabamun Lake	Clearwater County Brazeau County Parkland County Leduc County Wetaskiwin County Town of Drayton Valley Town of Rocky Mountain House Town of Devon Town of Thorsby Village of Wabamun	<ul style="list-style-type: none"> \$140,000 Alberta Water Resiliency and Restoration Program grant was used to map the health of riparian areas along the Modeste and Strawberry Creeks. This data will be used to conserve or restore high priority riparian areas that will provide greater flood/drought resistance, improve water quality and enhance wildlife habitat. The GIS data will be made accessible through an online web portal with information friendly format for the public and a detailed technical format for municipal planners. The Riparian Report for Modeste and Strawberry subwatersheds are available on the NSWA website The Wabamun Lake Watershed Management Plan is being finalized with involvement of local municipalities and lake stewardship groups
Sturgeon River	Sturgeon River Isle Lake Lac St. Anne Birch Lake Matchaway Lake Sandy Lake Kilini Creek Riviere Qu'Barre Atim Creek Carrot Creek	Lac St. Anne County Parkland County Sturgeon County City of Edmonton City of St. Albert City of Spruce Grove Town of Stony Plain Town of Onoway Town of Morinville Town of Gibbons Summer Villages of Lac Ste. Anne County East	<ul style="list-style-type: none"> \$300,000 Alberta Community Partnership grant was used to summarize information on surface water and groundwater hydrology, wetland and natural areas within the entire watershed. This grant also provides funds to assess and recommend consistent environmental and watershed protection planning tools for municipalities that align with federal, provincial regulations and reflect best management practices in Alberta. The grant will also be used to complete an Integrated Watershed Management Plan for the Sturgeon River Watershed (Fall 2019) \$147,000 Federal Environmental Damages Fund grant – reports now finalized assessing water quality, fisheries habitat and aquatic health of the Sturgeon River and its tributaries. This information provides an up to date and comprehensive assessment of aquatic health of the watershed. Reports available on the NSWA website. \$65,000 Alberta Water Resiliency and Restoration Program grant mapped the health of riparian areas along the Sturgeon River and its tributaries, as well as 17 lakes, for a total of over 1700 km of shoreline. This data will be used to conserve or restore high priority riparian areas in order to provide greater flood/drought resistance,

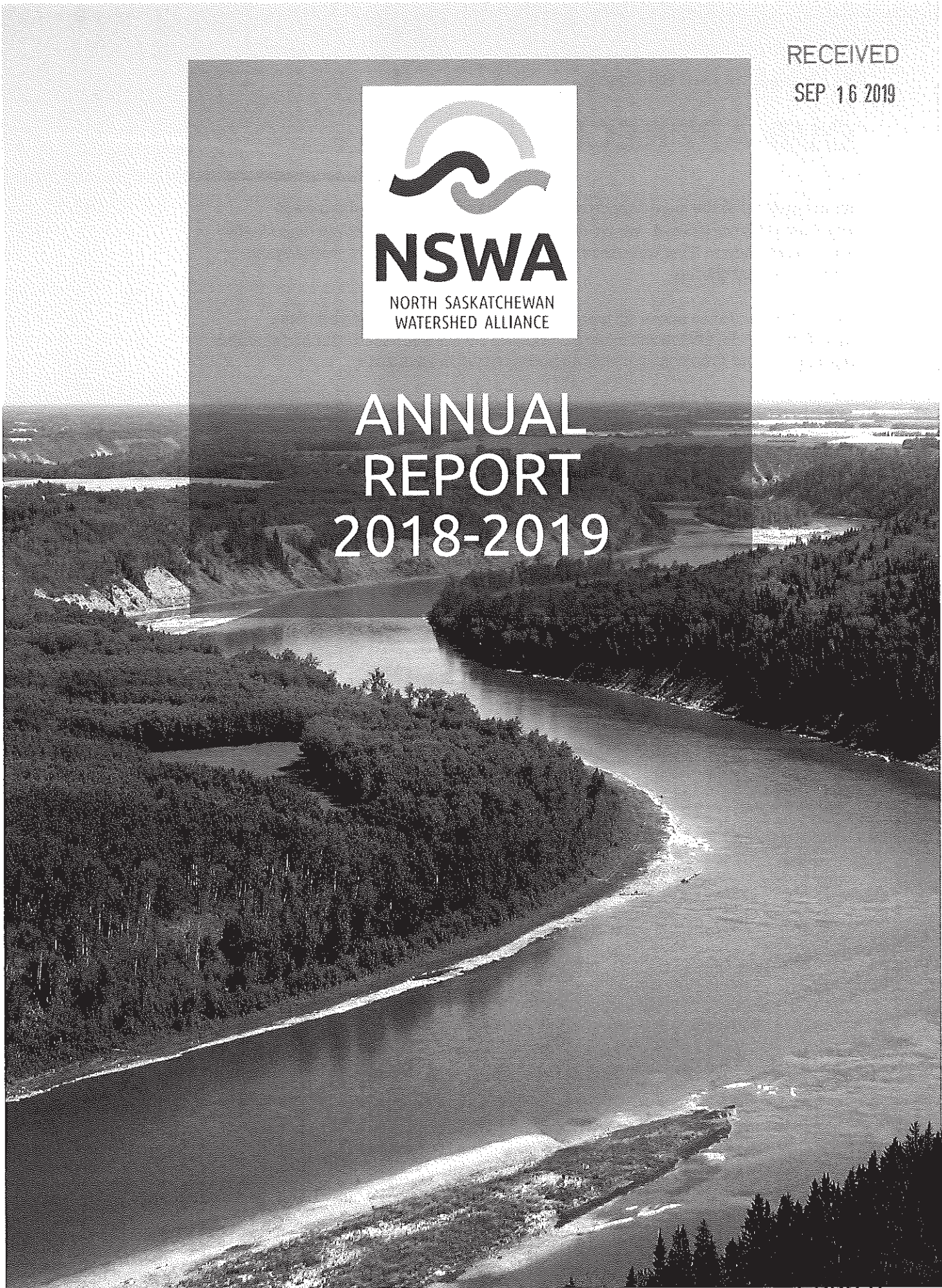
			<p>improve water quality and wildlife habitat. Final reports available online at www.nswa.ab.ca</p> <ul style="list-style-type: none"> A shared \$75,000 Water Resiliency and Restoration Program grant with Vermillion River Watershed Alliance to assess long term land use changes in the watershed and its effect on the hydrology of the basin. This study uses ALCES, a cumulative assessment simulation assessment tool, to show the impacts of land use decisions. This tool has also been used by the Edmonton Metro Regional Board to support its planning discussions and policy
Vermillion River	<p>Vermillion River Waskwei Creek Cotton Creek Birch Creek Campbell Creek Deer Creek Stretton Creek</p>	<p>County of Vermillion River County of Minburn Beaver County County of Two Hills County of St. Paul Town of Vermillion Town of Vegreville Town of Two Hills Town of St. Paul Town of Elk Point Town of Bruderheim Village of Holden Village of Innisfree Village of Myrnam</p>	<ul style="list-style-type: none"> A four-year, \$1.4 million Water Resiliency and Restoration Program grant to promote riparian and wetland restoration projects in the watershed. To date over 100 ha of wetlands and riparian areas have been enhanced or restored through this project. A shared \$75,000 Water Resiliency and Restoration Program grant with Sturgeon River Watershed Alliance was used to assess long term land use changes in the watershed and its effect on the hydrology of the basin. This study uses ALCES, a cumulative assessment simulation assessment tool, to show the impacts of land use decisions. This tool has also been used by the Edmonton Metro Regional Board to support its planning discussions and policy.
Beaverhill	<p>North Saskatchewan River Beaverhill Creek Astotin Creek Beaverhill Lake Cooking Lake Hastings Lake Antler Lake</p>	<p>Strathcona County Lamont County Beaver County City of Fort Saskatchewan Town of Bruderheim Town of Tofield Town of Ryley</p>	<ul style="list-style-type: none"> A Land Stewardship grant was used to complete a lake management plan for Antler Lake.

RECEIVED

SEP 16 2019



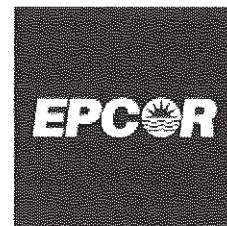
ANNUAL REPORT 2018-2019



OUR APPRECIATION

We are grateful to the many supporters of the work of the North Saskatchewan Watershed Alliance (NSWA). We would not be able to work on watershed issues in the North Saskatchewan River watershed without the resources and time shared by our funders and contributors.

We are thankful for an operating grant from the Government of Alberta and the contributions from EPCOR and many municipalities in our watershed. Our partners also contributed over \$700,000 of in-kind support to NSWA in 2018-2019.



Counties	Cities and Towns	Villages and Summer Villages
Beaver County Brazeau County Clearwater County Lac Ste. Anne County Lamont County Leduc County Parkland County St. Paul County Smoky Lake County Strathcona County Sturgeon County Thorhild County Wetaskiwin County County of Minburn County of Two Hills County of Vermilion River	Cities: Edmonton Fort Saskatchewan St. Albert Towns: Bruderheim Drayton Valley Elk Point Gibbons Onoway Rocky Mountain House St. Paul Smoky Lake Tofield Vegreville Vermilion	Villages: Holden Innisfree Marwayne Myrnam Ryley Spring Lake Wabamun Warburg Summer Villages: Castle Kapasiwin Point Alison Ross Haven Seba Beach Silver Sands South View Sunrise Beach Sunset Point West Cove Yellowstone

MESSAGE FROM THE EXECUTIVE DIRECTOR

2018-2019 was a busy year for NSWA with many rewarding watershed projects, partnerships and events:

- Completion of twelve technical watershed projects funded by over \$1 million in provincial and federal grants
- Over 25 technical advisory and steering committee meetings with our subwatershed alliances
- Two new project grants received for \$630,000 to implement a watershed wide Riparian Health Action Plan
- Over 180 attendees at NSWA Education forums
- New NSWA website launched in October 2018

Our innovative and longstanding work was highlighted at the 2019 Alberta Emerald Awards with NSWA being finalists in the Non-Profit category for our *Riparian Health Action Plan* project and recognition for past NSWA Executive Director *Dave Trew* in the Lifetime Achievement category.

Our accomplishments would not be possible without the generous support and commitment of our partners. Thanks to everyone who has made this year an incredible success for watershed management and NSWA.

Leah Kongsrude, Executive Director



NSWA STAFF



Back row, left to right: Gord Thompson, Mara Erickson, Dave Trew, Billie Milholland, Elisa Brose

Front row, left to right: Leah Kongsrude, Grace Turner, Ellen Cust, Mary Ellen Shain
Missing: Michelle Gordy



BOARD OF DIRECTORS

The NSWA is a multi-stakeholder watershed partnership incorporated as a non-profit society in 2000 and designated as a Water Planning and Advisory Council by the Government of Alberta in 2005. NSWA also became a registered charity in 2016. The work of NSWA is guided by an 18-member multi-stakeholder Board that provides strategic direction and advice to the organization to achieve its vision and mission. We appreciate our Board members ongoing dedication and support.

BOARD MEMBERS PAST AND PRESENT

Back row, left to right: John McNab, Bill Fox, John Thompson, Tony Lemay, Mark Gressler, Jason Wilkins, Stephen Craik, Laurie Danielson, Ken Crutchfield

Front row, left to right: Anne-Marie Bertagnolli, Dave Trew, Leah Kongsrude, Leah Hamonic, Candace Vanin



NSWA BOARD OF DIRECTORS 2018-2019

Agriculture

Bill Fox, *Alberta Beef Producers*

Forestry

Bob Winship, *Weyerhaeuser*

Industry

Dr. Laurie Danielson, *NCIA*

Member-at Large

John Thompson

Federal Government

vacant

Municipal

Al Corbett, *Alberta Drainage Council*

Jim Duncan, *Clearwater County*

Bart Guyon, *Brazeau County*

Jacquie Hansen, *City of St. Albert*

John McNab, *Parkland County*

NGO

Ken Crutchfield, *Alberta Chapter
Wildlife Society*

Leah Hamonic, *Antler Lake
Stewardship Committee*

Provincial Government

Jamie Bruha, *Alberta Environment
and Parks*

Tony LeMay, *Alberta Energy
Regulator*

Utility

Dr. Stephen Craik, *EPCOR*
Aleta Corbett, *TransAlta*

Advisory

Todd Wyman, *City of Edmonton*

*Directors contributed over 1300 hours
for an in-kind contribution of over \$140,000
to the NSWA in 2018-2019*

NSWA STRATEGIC PLAN 2019-2021

The NSWA Board updated its 3-Year Strategic Plan in 2019 and outlined four key goals to achieve the vision and mission of the North Saskatchewan Watershed Alliance. The goals also align with the mandate of Watershed Planning and Advisory Councils set out by Alberta Environment and Parks.

STRATEGIC GOALS

Goal 1: *The NSWA supports Collaborative Watershed Planning*

Goal 2: *The NSWA provides Leadership in Watershed Management*

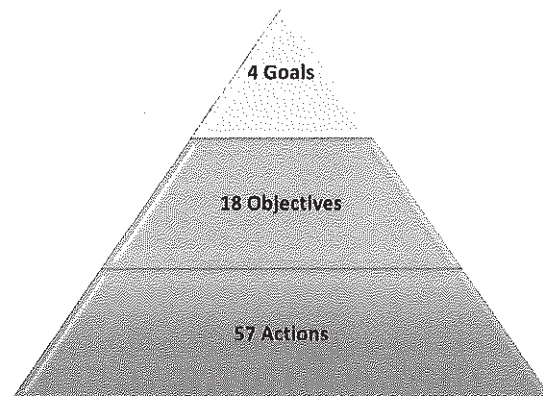
Goal 3: *The NSWA promotes Watershed Knowledge Sharing*

Goal 4: *The NSWA remains a Functional and Sustainable Organization*

The four goals are further defined by key objectives and actions which direct the work of the NSWA organization. Each objective will have defined performance measures to track the progress of the Plan.

The Strategic Plan will be reviewed annually by the NSWA Board to adjust for new opportunities and challenges and to assess the progress of the Plan.

To aid in this review the NSWA Board has established a new Strategic Planning and Priorities Standing Committee to provide detailed recommendations and insights on the long-term direction of the organization.



GOAL 1: COLLABORATIVE WATERSHED PLANNING

Collaborative partnerships are the core to successful watershed planning for the NSWA. Our strong relationships with government agencies, municipalities, industry, non-governmental organizations and watershed stewardship groups provide us with the ability to align our work with our key stakeholder's watershed issues and projects.

COLLABORATIVE PARTNERSHIPS

Headwaters Alliance	Sturgeon River Watershed Alliance	Vermilion River Watershed Alliance	Lakes
<ul style="list-style-type: none"> ○ Clearwater County ○ Brazeau County ○ Wetaskiwin County ○ Leduc County ○ Parkland County ○ Town of Drayton Valley ○ Town of Rocky Mountain House ○ Town of Devon ○ Town of Thorsby ○ Alberta Environment and Parks 	<ul style="list-style-type: none"> ○ Parkland County ○ Sturgeon County ○ Lac Ste Anne County ○ City of Edmonton ○ City of St. Albert ○ City of Spruce Grove ○ Town of Gibbons ○ Town of Morinville ○ Town of Onoway ○ Town of Stony Plain ○ Village of Alberta Beach ○ Summer Villages of Lac Ste Anne County East ○ Big Lake Environmental Support Society ○ Alberta Conservation Association ○ Alberta Environment and Parks 	<ul style="list-style-type: none"> ○ County of Vermilion River ○ County of Minburn ○ Beaver County ○ County of Two Hills ○ County of St. Paul ○ Holden Drainage District ○ Alberta Drainage Council ○ Vermilion River Operations Advisory Committee ○ Town of Vermilion ○ Town of Vegreville ○ Town of Two Hills ○ Agriculture and Agri-Food Canada ○ North American Waterfowl Management Plan ○ Alternative Land Use Services Canada ○ Alberta Environment and Parks 	<ul style="list-style-type: none"> ○ Parkland County ○ Hubbles Lake Stewardship Society ○ Mayatan Lake Management Association ○ Lake Isle Lac Ste Anne Stewardship Association ○ Jackfish Lake Management Association ○ Wabamun Watershed Management Council ○ Antler Lake Stewardship Committee ○ Baptiste and Island Lakes Stewardship Society ○ Alberta Environment and Parks

SUBWATERSHED ALLIANCES:

28 Municipalities
5 Government Agencies
3 Non-governmental Groups

PROVIDED
1695
IN-KIND
HOURS

HEADWATERS ALLIANCE

The Headwaters Alliance met regularly to share information and to learn more about municipal issues that affect the health of the watershed. Now in its fourth year, the Headwaters Alliance continues to have excellent representation from five counties and three townships whose municipal boundaries cover the headwaters region.



2018-2019 HEADWATERS PRIORITIES

1. *Incorporation of the new riparian prioritization data into municipal operations*
2. *Development of a Headwaters Alliance strategic plan*
3. *Inclusion of watershed health goals within Intermunicipal Collaboration Plans*

**Over 6,000 kilometers of
river, creek and lake
shorelines were assessed for
riparian intactness**

RIPARIAN HEALTH ACTION PLAN

The Riparian Assessments for the Modeste and Strawberry subwatersheds measured intactness for over 6,000 kilometers of creek and lake shoreline. In 2019, the Headwaters Alliance is moving forward on Phase 2 and will continue the development of a riparian web portal for landowner engagement.

The Riparian Health Action Plan is one of NSW's key projects, and follows the IWMP's recommendations for improving riparian health:

- Assess the condition of riparian areas in the watershed
- Develop policy recommendations for riparian conservation
- Support programs that incentivise landowners to care for riparian areas.

In May 2018, NSWA hosted a workshop for key organizations to introduce the new riparian assessment methods. Participants provided feedback on incorporating the riparian health information into their own stewardship program and project areas.



Mary Ellen Shain, Watershed Project Coordinator, gave over 17 presentations to municipal councils, restoration groups, industry and watershed stewardship groups to share the results of the riparian assessments.

STURGEON RIVER WATERSHED ALLIANCE

The NSWA has been working with 12 municipalities in the Sturgeon River subwatershed to develop a watershed management plan that will address local watershed issues with local solutions.

The SRWA includes a Steering Committee of elected officials and a Technical Advisory Committee of municipal staff, non-governmental organizations and technical experts.

STURGEON RIVER TECHNICAL REPORTS

Several key studies on the Sturgeon River Watershed were completed in 2018-2019:

- *Sturgeon Watershed Riparian Assessment*
- *Gravel Operations in the Sturgeon Watershed*
- *Natural Areas Mapping for the Sturgeon River Watershed*
- *Summary of Groundwater Conditions in the Sturgeon River Basin*
- *Planning Tools for the Sturgeon River Watershed*
- *Sturgeon River Watershed Aquatic Ecosystem Assessment*



WATERSHED MANAGEMENT PLAN

The NSWA is working to complete a watershed management plan for the Sturgeon River watershed in 2019. The watershed management plan will contain goals, strategies and actions for:

1. *Collaboration*
2. *Policies and Planning*
3. *Surface Water Quality*
4. *Water Supply*
5. *Groundwater*
6. *Aquatic Ecosystems*
7. *Lakes*
8. *Land Use*
9. *Knowledge-Building*
10. *Education and Stewardship*

The SRWA has received over \$500,000 in grants and completed over 10 studies on the health of the watershed

VERMILION RIVER WATERSHED ALLIANCE

The NSWA facilitated on-the-ground riparian and wetland restoration & enhancement projects in its third year of the WRRP-funded Vermilion River Watershed Restoration and Enhancement Project. With three dedicated staff to the project including a Lakeland College co-op student, 16 projects were completed in the summer of 2018.

To date, the NSWA is proud to be in partnership with over 30 landowners in the region, resulting in implementation of 13 riparian and 20 wetland projects in the Vermilion River Watershed.



22 Wetland Projects =
150 hectares enhanced

13 Riparian Projects =
16 kilometers restored

HYDROLOGIC RESPONSE OF THE VERMILION RIVER TO CONSERVATION AND RESTORATION SCENARIOS

Response of Vermilion River stream flow to simulated conservation and restoration scenarios was explored through a project completed by ALCES Landscape and Land-Use Ltd.

By incorporating a hydrologic model into the ALCES land use simulator, one can view areas of the watershed where a restoration action (e.g., wetland restoration) has the most desired effect on a hydrologic parameter (e.g. reducing peak stream flow).

Results will be made available within an online viewing interface to help users prioritize land use actions. Similar work was completed for the Sturgeon River Watershed.

LAKELAND COLLEGE PARTNERSHIP

In 2018, Grace Turner, a Lakeland College Co-op student served as a Watershed Planning Intern for the Vermilion River Watershed.

In addition to helping with riparian health assessments and project management, she completed her final capstone paper titled "*Grazing management in riparian areas,*" and used VRWA projects as part of the case study.

Ms. Turner presented her capstone paper at Lakeland College's first annual Conference on Environmental Management in February 2018, at which NSWA's Mara Erickson was a plenary speaker.

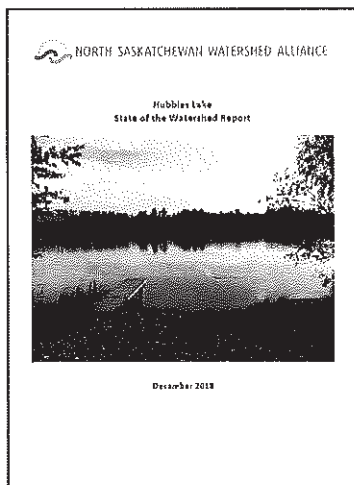


LAKE STEWARDSHIP GROUPS

The important partnerships the NSWA has with watershed stewardship groups under the Water for Life Strategy is highlighted by our many lake projects.

LAKE MANAGEMENT STUDIES

The NSWA completed State of the Watershed Reports for Hubbles and Baptiste Lakes in 2019. NSWA provided presentations and information sessions to the Hubbles Lake and BAILS Stewardship Societies to highlight the results in these reports. NSWA is also working with the Antler Lake Stewardship Society to complete its State of the Watershed Report.



The NSWA is facilitating work with the Wabamun Lake Watershed Management Committee which includes representatives from:

- *Alberta Environment and Parks*
- *Municipalities*
- *Industry*
- *Stewardship Groups*

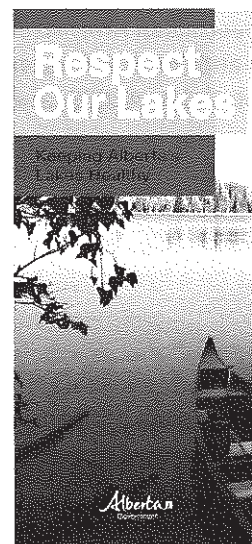


The Mayatan Lake Watershed Management Plan was published in 2016 and an implementation committee has been set up to carry out the recommendations in the Plan.

The committee has met to discuss possible projects and continued collaboration with NSWA, Parkland County and Alberta Environment and Parks.

LAKE STEWARDSHIP RESOURCES

NSWA works with Alberta Environment and Parks, Alberta Lake Management Society and the Land Stewardship Centre to share lake stewardship information and support.



GOAL 2: **LEADERSHIP IN WATERSHED MANAGEMENT**

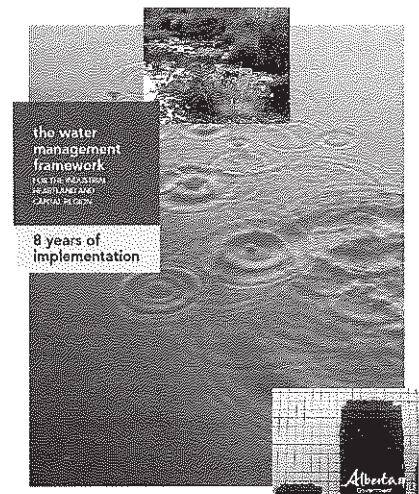
The NSWA reviews and prioritizes watershed management projects to maximize partnership opportunities and use of resources. In addition to the three subwatershed Alliances, this includes providing advice on Government of Alberta policy, framework and guidelines projects.

Industrial Heartland /Capital Region Water Quality Management Framework

NSWA participates in Alberta Environment and Parks Implementation Advisory Committee for the Water Quality Management Framework for the Industrial Heartland and Capital Region.

The Water Management Framework for the Industrial Heartland and Capital Region presents a collaborative, cumulative effects management approach to protect the reach of the North Saskatchewan River, from Devon to Pakan, which is directly impacted by municipal and industrial effluent discharge.

The Framework was endorsed in 2007 and will be incorporated into the provincial North Saskatchewan Regional Plan.



Blackmud/Whitemud Creeks Drainage Study



The NSWA facilitated a municipal group studying surface water management issues in the Blackmud and Whitemud Creek watersheds including:

- City of Edmonton
- City of Leduc
- Town of Beaumont
- County of Leduc
- Strathcona County

The group received a \$350,000 Alberta Community Partnerships grant to study the impact of urban development and increased stormwater drainage on the receiving Creeks.

The report recommended that flow from all new developments be controlled to a maximum release rate of 3.0 litres/second/hectare to reduce erosion and sedimentation of the creeks and resulting impacts on water quality and creek valley habitats.

Stormwater release rates can be reduced by retaining important wetland and riparian areas, constructing naturalized stormwater retention facilities and encouraging development that promotes stormwater infiltration such as the use of rain barrels and rain gardens, bioswales and green roofs.

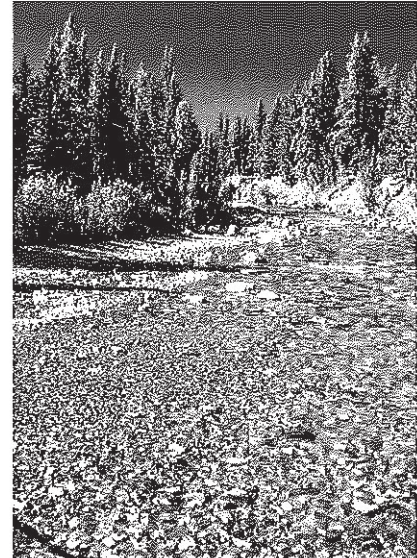
North Saskatchewan River WaterSHED Monitoring Program

NSWA is a member of the Steering Committee for this new comprehensive four year water quality monitoring program funded by EPCOR and supported by Alberta Environment and Parks. This enhanced monitoring program will include water quality and flow data collection for the North Saskatchewan River and its major tributaries.

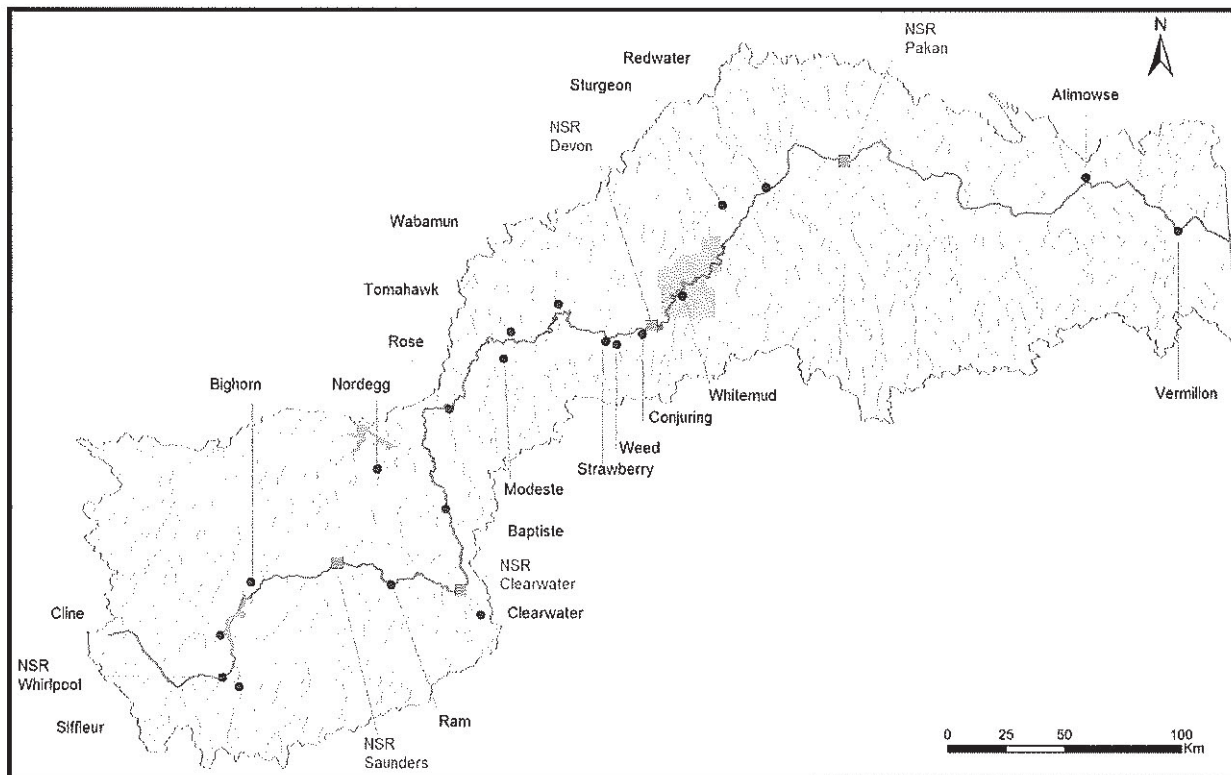
The program will run from 2018 to 2021 and will support the implementation of several provincial and municipal planning initiatives including the:

- Provincial *North Saskatchewan Regional Plan*
- North Saskatchewan Watershed Alliance's *Integrated Watershed Management Plan*
- Water Management Framework for the Industrial Heartland and Capital Region
- EPCOR's *Source Water Protection Plan*
- City of Edmonton's *River for Life Strategy*

*8 new water quality monitoring stations will be installed
and
10 existing stations enhanced across the watershed*



WaterSHED Monitoring Stations

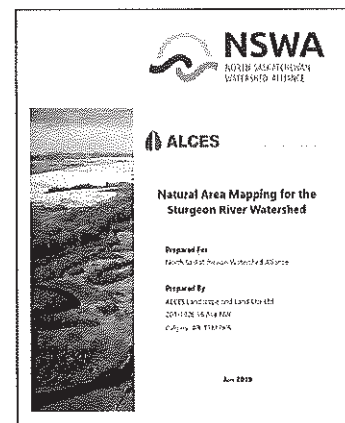
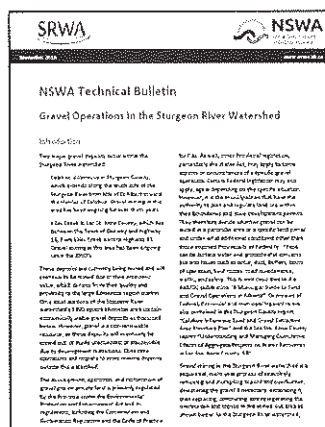
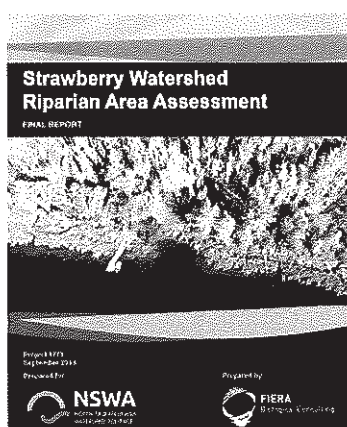
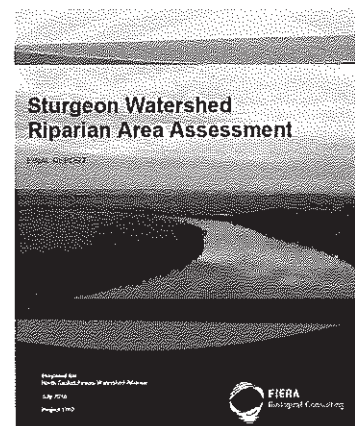
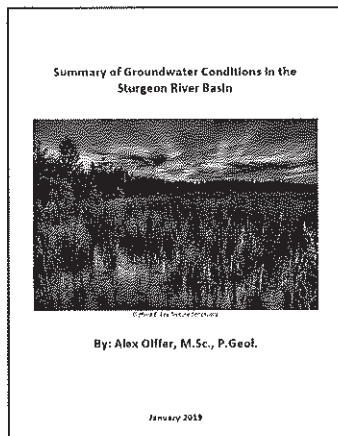
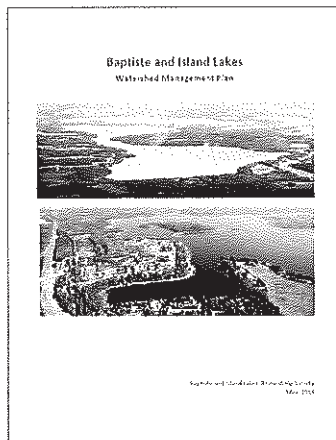


NEW PUBLICATIONS

The NSWA has completed over 50 studies, reports and technical bulletins on the North Saskatchewan watershed since 2002. Eleven new reports were completed in 2018-2019 and you can find them all on the new NSWA website. There is now a dedicated RESOURCES web page that includes search functions by type of report, topic and subwatershed.

- *Hubbles Lake State of the Watershed Report (2019)*
- *Baptiste and Island Lakes Watershed Management Plan (2019)*
- *Planning Tools for the Sturgeon River Watershed (2019)*
- *Natural Areas Mapping for the Sturgeon River Watershed (2019)*
- *Aquatic Ecosystem Assessment for the Sturgeon River Watershed (2019)*
- *Watercourse Assessment for the Sturgeon River Watershed (2019)*
- *Summary of Groundwater Conditions in the Sturgeon River Basin (2019)*
- *Strawberry Watershed Riparian Assessment (2018)*
- *Gravel Operations in the Sturgeon River Watershed (2018)*
- *Sturgeon Watershed Riparian Assessment (2018)*
- *Modeste Watershed Riparian Assessment (2018)*

Over 50
watershed
reports are
available on
the NSWA
website



GOAL 3: WATERSHED KNOWLEDGE SHARING

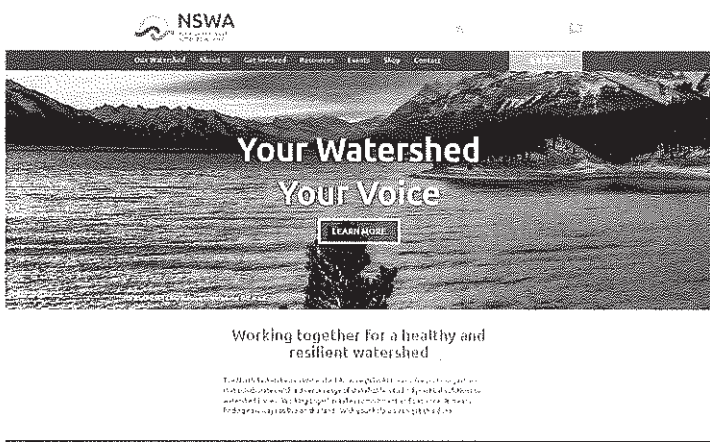
The NSWA is a key resource for watershed information on the North Saskatchewan River watershed and focuses its communications efforts on strategic issues with its key stakeholders. We align and compliment the communications efforts of Alberta Environment and Parks, Water Planning and Advisory Councils and other watershed organizations to reinforce watershed knowledge and stewardship messages.

NEW NSWA WEBSITE - WWW.NSWA.AB.CA

The new website was launched at the NSWA October Educational Forum and has shown a continuing increase in new users since then. The new website currently attracts over 1400 sessions per month.

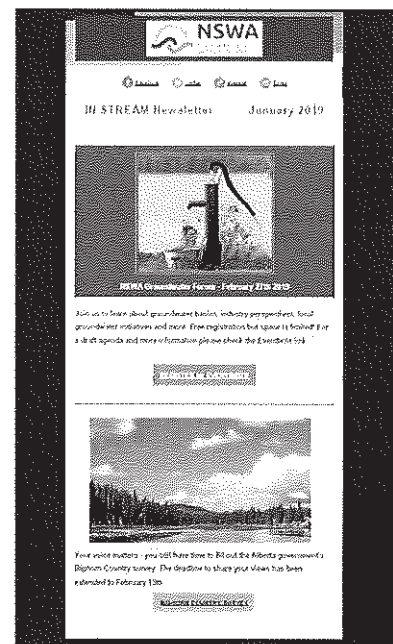
The website has an interactive map for finding where you live in the watershed, a new RESOURCES page to easily find past studies and reports and a powerful search engine.

The new website also has more information on our 12 subwatersheds and highlights the work of the three Alliances: *Headwaters, Sturgeon River and Vermilion River.*



NEWSLETTERS

Our monthly newsletters keep our members informed of watershed news and upcoming events. NSWA has over 700 subscribers to our newsletter.



SOCIAL MEDIA



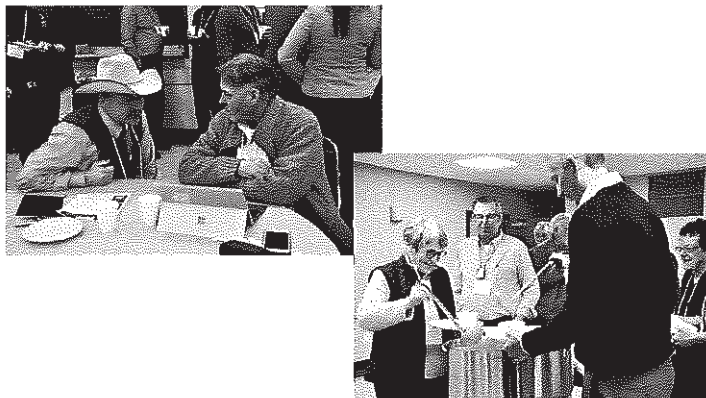
Twitter: 2460 followers
Facebook: 810 followers
Linked In: 360 connections

EDUCATIONAL FORUMS

NSWA Educational Forums are an excellent venue for building collaborative partnerships, exchanging experiences in watershed management planning and sharing watershed knowledge. In 2018-2019 NSWA held three educational forums:

- *Riparian Health Action Plan with watershed specialists* (May 2018)
- *Riparian Health: From Policy to Planting* (October 2018)
- *Groundwater: Our Hidden Water Resource* (February 2019)

NSWA continues to receive very positive feedback from the Forum surveys and will continue to use input from the surveys to select watershed topics for future forums.



WATERSHED EVENTS

NSWA participates in community events where we share who we are and the importance of watershed management to stakeholders in the North Saskatchewan watershed. Some of the events NSWA participated in the last year included:

- EPCOR's Riverfest
- Clean and Green Riverfest in St. Albert
- Pond Parties in Strathcona County
- Duffield School Fieldtrip at Mayatan Lake
- Night on the North Saskatchewan Pecha Kucha Event
- World Water Day YEG at NAIT
- Edmonton Boat and Sportsmen's Show



Duffield School - Mayatan Lake 2018



World Water Day 2019



Sportsmen's Show 2019

GOAL 4: **FUNCTIONAL AND SUSTAINABLE ORGANIZATION**

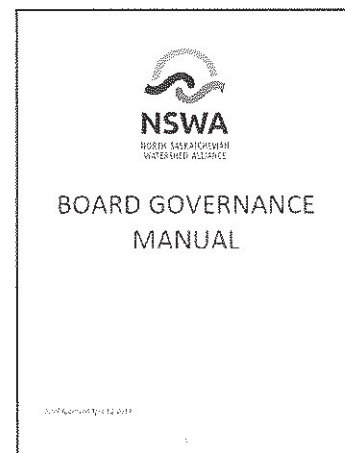
The NSWA is a registered non-profit society guided by an 18-member multi-stakeholder board and currently has five full time staff. We rely on funding from Alberta Environment and Parks, EPCOR and municipal contributions to fund our core operations. Watershed management specific project work is funded through separate federal and provincial grants, and municipal and watershed stewardship group contributions.

BOARD GOVERNANCE

The NSWA Board reviewed its key governance functions in 2018-2019. The role of committees was reassessed and new terms of reference were developed for five board standing committees:

- Executive
- Communications and Engagement
- Finance
- Governance
- Strategic Planning and Priorities

The Board also completed a major update of their *Board Governance Manual* which includes over 50 framework, governance and operational policies.



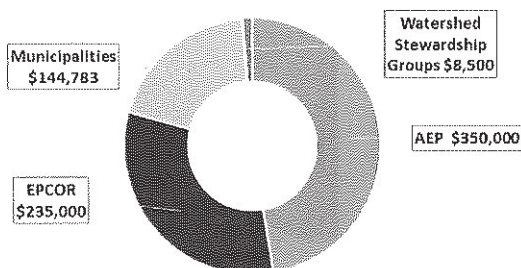
OPERATIONAL FUNDING

The NSWA receives core funding from:

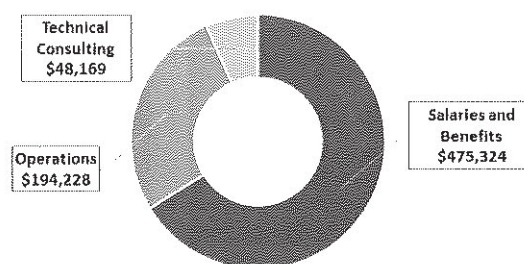
- An operating grant from the Government of Alberta
- A contribution from EPCOR Water Services Canada
- Municipal contributions equivalent to \$0.50 per capita

**Over \$700,000 of
in-kind support was provided
by NSWA partners in 2018 2019**

NSWA Operations Revenue 2018 2019



NSWA Operations Expenses 2018 2019



FUNDING SOURCES

The NSWA applies for grants from Federal and Provincial government programs for watershed project specific work such as technical studies and on-the-ground restoration projects. Over \$2.5 million worth of grants have been awarded to the NSWA in the last five years.

You can find a full copy of the NSWA 2018-2019 Audited Financial Statement on our website www.nswa.ab.ca

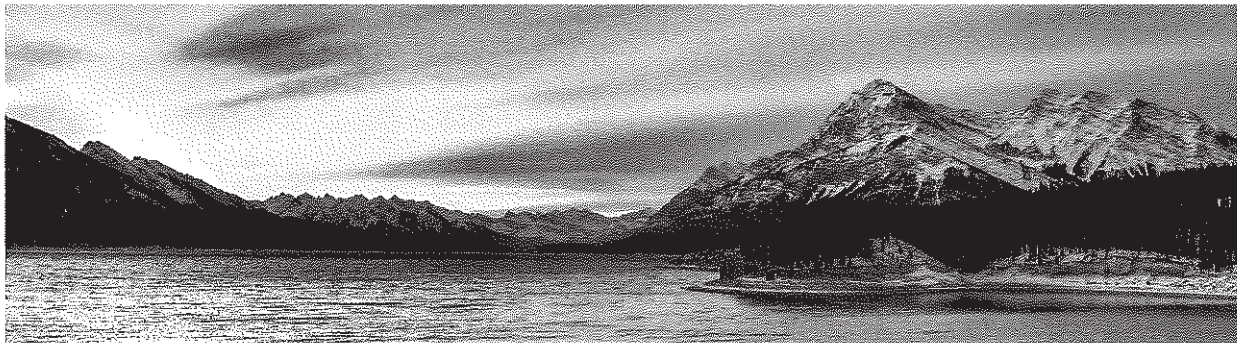
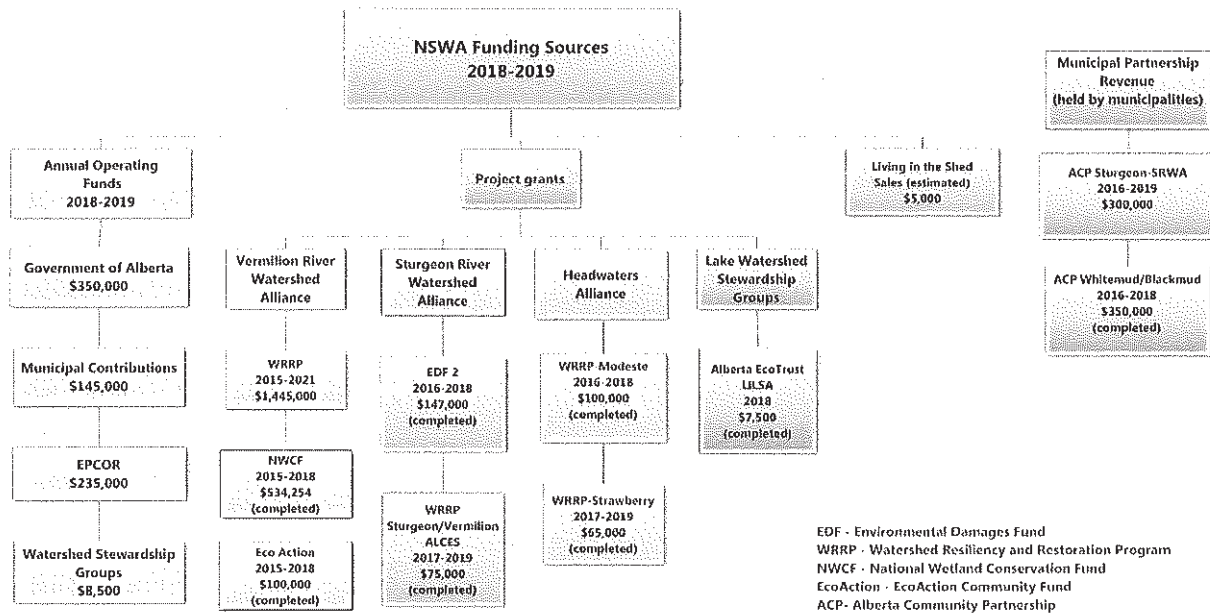


PHOTO CREDITS:

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Page 8: Kayaker, Sieg Koslowski, Images Alberta
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Page 10: Wabamun Lake, Robert Burkholder, Images Alberta
Page 12: Ram River, Carol Rusinek, Images Alberta
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Back Page: NSWA photo



OUR 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.*

OUR VISION

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

Keep in Touch!

water@nswa.ab.ca

www.nswa.ab.ca

587 525 6820

FACEBOOK:	NorthSaskRiver
LINKED IN:	North Saskatchewan Watershed Alliance
TWITTER:	@NorthSaskRiver
INSTAGRAM:	@north_sask_river



[Home](#) → [Environment](#) → [Water](#) → [Drinking water and wastewater](#) → Water and Wastewater Operator Certification

Water and Wastewater Operator Certification

Regulated water and wastewater facilities in Alberta must have certified operators.

January 2, 2019: [Water and Wastewater Operator Certification Portal](#) launches.

Overview

The Water and Wastewater Operator Certification Program was developed to ensure proper operation and maintenance of water and wastewater facilities, and to protect the health of citizens and the environment.

Legislation

The *Environmental Protection and Enhancement Act* requires that specified water and wastewater facilities in Alberta have certified operators to supervise and/or carry out day-to-day operations. Each facility's operating approval specifies the certified operator requirements.

Policies and guidelines

- [Water and Wastewater Operators' Certification Guidelines](#)
- [Canadian Water and Wastewater Operator Certification Best Practices](#) (PDF, 354 KB)
- [Taking Care of Your Drinking Water and Wastewater – Guide for Municipal Councils](#)

Operator certification portal

Beginning January 2, 2019, Water and Wastewater Operators will be required to set up an account in the [Water and Wastewater Operator Certification Portal](#) to apply for reciprocity, certification exams, renewals and training/course Continuing Education Units (CEUs).

We thank you for your patience as we bring this system online as updates may be required at times.

Certified operators will receive an email with account activation information. Please activate your account as soon as you are able.

If you are not a certified operator in Alberta and want to apply for reciprocity or to write an exam, please email waterandwastewateroperatorcert@gov.ab.ca to set up an account.

Certification

The Water and Wastewater Operator Certification Program has 5 levels of certification:

- Small Systems
- Level I
- Level II
- Level III
- Level IV

Each level of certification has different education, training, experience and examination requirements.

For information on Small Systems, Level I and Level II certification training, visit [Alberta Water and Wastewater Operators Association \(AWWOA\)](#).

Education requirements

To qualify for writing certification exams, applicants must meet minimum education, experience and training requirements for each level.

Other than for Small Systems certification, the minimum requirement is completion of Grade 12. If you did not complete grade 12, you can [obtain a high school equivalency diploma](#).

For more information, read the [Water and Wastewater Operators' Certification Guidelines](#).

Transcripts

Transcripts submitted with applications for certification must show completion of grade 12.

If you completed high school in Alberta, you can [order high school transcripts](#) through Alberta Education.

Contact your local department of education if you completed high school in another province or state.

Information on assessing education received from outside Canada is available through the [International Qualifications Assessment Service \(IQAS\)](#).

CEUs

The certification program requires that operators have post-secondary education, or equivalent, to meet the requirements for Levels III and IV certification. Substitutions of applicable approved experience or CEUs can be used to gain the equivalent of post-secondary education.

See the [Policy for Continuing Education Unit Evaluation and Credit](#) (PDF, 240 KB).

It is the responsibility of certified operators to keep track of their training. Operators are responsible for maintaining proof of completion of their continuous education requirements, submitting the required documentation and having it approved in Compliance 365 **before** applying for certification or renewal.

As referenced in the above policy, AEP **will not recognize CEUs or Award CEUs for the following:**

- Mass media programs (Webcast/Video/DVD/Webinars) that are not part of an educational program
- On-the-job training, apprenticeships and work experience
- Association nomination and elections sessions
- Work related staff and committee meetings
- Association business meetings and reports
- Self-directed study without course completion/verification
- Assigned reading and study time (homework) associated with any training program
- Tours
- Report writing
- Trade shows
- Product demonstrations (any length)

Course providers

To apply to have a course evaluated, please email waterandwastewateroperatorcert@gov.ab.ca to activate an account in the Water and Wastewater Operator Certification Portal.

Mandatory training requirements

Mandatory entry level training is only required for Small Systems certification and Level I certification. The following organizations offer training that fulfils the mandatory entry level training requirement:

- [AWWOA](#)
- [NAIT \(Water and Wastewater Technician Certificate\)](#)
- [Northern Lakes College](#)
- [Portage College](#)

For more information, read the [Water and Wastewater Operators' Certification Guidelines](#).

Certified operators

- [List of certified Water and Wastewater Operators in Alberta](#)

Certification exam

All Certification Exams will be approved approximately 2 weeks prior to the on-line exam window opening up. Once approved, a follow-up email from AMP/PSI will be sent within a couple of business days with instructions on how to schedule an exam. Once an exam window opens up, it will remain open for 30 days so an operator can schedule their exam at one of the eight testing locations across the province.

Yearly Exam Window Schedule (days may vary slightly year to year):

- January 13
- March 9
- May 15
- July 15

- September 16
- November 12

Fees

The online exam fee is \$97.00 USD for each exam, paid directly to the exam provider.

Exam accommodations

Applicants may request an [examination accommodation](#) (PDF, 30 KB) for a documented disability.

Exam rewrites

If a candidate does not pass a certification exam, they can apply for re-examination. The following restrictions apply:

- a candidate can rewrite the exam at least 4 months, but not more than one year, after the unsuccessful attempt
- should a candidate be unsuccessful after their third (or subsequent) attempt at an exam, they must apply for re-examination showing the acquisition of at least 5 relevant CEUs since the last unsuccessful exam attempt

Certification renewal

The Water and Wastewater Operator Certificate of Qualification must be renewed every 3 years to ensure that the operator continues to meet certification program requirements.

Failure to renew certification will result in the certificate becoming inactive. Conditional certificates are not renewable.

For more information on renewal requirements, see:

- [Renewal of Water and Wastewater Operator Certificate of Qualification](#)
- [Water and Wastewater Operators' Certification Guidelines](#)

Contractor forms

Trouble opening or completing PDF forms?

Fillable forms do not open properly on some mobile devices and web browsers. To fill in and save this form:

1. Click on the PDF link to save it on your computer.
 2. Launch Adobe Reader.
 3. Open the PDF from within Adobe Reader. You can now fill and save your form.
- [Contract Operator Experience Verification Form](#) (PDF, 733 KB)

Contact

For more information on the Water and Wastewater Operator Certification Program, email waterandwastewateroperatorcert@gov.ab.ca.

Related

[Drinking water](#)

[Wastewater and storm water management](#)

[Operator consortium reports](#)

[ABC – Need to Know Criteria](#)

[AWWOA – Alberta Utility Operator Newsletter](#)

[YouTube – Water and Wastewater Careers - Exploring Possibilities](#)

[YouTube – Water and Wastewater Operator Certification in Alberta](#)

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Small Wastewater System Operations

CEUs

0.6 CEUs

Description

This course is available in three formats: online, in-class or home study.

It is designed to assist the operator with the operation and maintenance of small wastewater treatment and collection systems. It is an introductory course intended for operators of Class I facilities employed in municipalities with a population up to 500.

Completion of this course is only one part of the prerequisite for Small System Certification. Alberta Environment and Parks administers a separate Small Wastewater System Operator Certification Exam.

NOTE: Applicants who wish to write the certification exam must qualify and MUST apply to Alberta Environment prior to the deadline for their preferred paper exam -or- during the application window for online exams. To qualify, successful completion of this course must be achieved prior to the submission of the certification exam application (paper or online) with the course certification attached.

For additional certification information, please contact Alberta Environment and Parks at 780-427-7713 or 780-643-1992 or email: WaterandWastewaterOperatorCert@gov.ab.ca

Dates & Locations

Session #1	Oct 4, 2019 8:00am - Oct 4, 2019 4:00pm	Hotel Blackfoot - 5940 Blackfoot Trail SE - Calgary
Session #2	May 1, 2020 8:00am - May 1, 2020 4:00pm	Chateau Louis Hotel & Conference Centre - 11727 Kingsway Ave - Edmonton

Prerequisites

Course Completion Exam:

At the end of the course (in any format) a completion exam will be given. It consists of 25 questions. An overall minimum of 70% is needed to achieve a passing grade. If unsuccessful, one re-write is allowed.

allowed.

Delivery Formats

Online, Home Study, In Class

Outline

Topics Include:

- Small Wastewater Systems - facility classification and operator certification, responsibilities, wastewater collection and treatment regulations, wastewater treatment performance standards
- Support Systems - introduction, pumps, valves, basic electricity, instrumentation and controls
- Wastewater and Storm Water Collection - system components, lift stations, collection system inspection, testing, cleaning as well as operation and maintenance. Plus system rehabilitation and odour control & mitigation.
- Wastewater Treatment - introduction, wastewater sources, sanitary wastewater characteristics, treatment methods, stabilization ponds (lagoon systems)
- Wastewater System Operation - operator tasks, wastewater quality monitoring testing & reporting, safety, facility maintenance, operating procedures & records, emergency planning
- Glossary and appendices included

COURSE MATERIALS:

Inclass: No manuals will be forwarded to students in advance of this course – the instructor will provide all material on-site including a course completion exam.

Home study: Materials will be mailed upon registration. Confirmation of this will be emailed.

Online: Course materials are available immediately upon registration through AWWOA online profile. Further instructions and information about the course are emailed after registration.

Cost

\$300.00 Must have current AWWOA Membership

\$400.00 Non-Members

\$225.00 (For in-class courses only) Must have a current AWWOA Membership and be an operator of a small public rural water/wastewater facility.

[BACK TO LISTING](#)

[REGISTER FOR COURSE](#)

**10806 - 119 Street
Edmonton, AB
T5H 3P2
P: 780-454-7745
TF: 1-877-454-7745**

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(/REFUND-POLICY)**

WEBSITE DESIGN BY BOX CLEVER

Small Water Systems Operations

CEUs

0.6 CEUs

Description

This course is available in three formats: online, in-class or home study.

It is designed to assist the operator with the operation and maintenance of small water treatment and water distribution systems. It is an introductory course intended for operators of Class I facilities employed in municipalities with a population up to 500.

Completion of this course is only one part of the prerequisite for Small System Certification. Alberta Environment and Parks administers a separate Small Wastewater System Operator Certification Exam.

NOTE: Applicants who wish to write the certification exam must qualify and MUST apply to Alberta Environment prior to the deadline for their preferred paper exam -or- during the application window for online exams. To qualify, successful completion of this course must be achieved prior to submission of the certification exam application (paper or online) with the course completion certificate attached.

For additional certification information, please contact Alberta Environment and Parks at 780-427-7713 or 780-643-1992 or email: WaterandWastewaterOperatorCert@gov.ab.ca

Dates & Locations

Session #1	Oct 3, 2019 8:00am - Oct 3, 2019 4:00pm	Hotel Blackfoot - 5940 Blackfoot Trail SE - Calgary
Session #2	Apr 30, 2020 8:00am - Apr 30, 2020 4:00pm	Chateau Louis Hotel & Conference Centre - 11727 Kingsway Ave - Edmonton

Prerequisites

Course Completion Exam:

At the end of the course (in any format) a completion exam will be given. It consists of 25 questions. An overall minimum of 70% is needed to achieve a passing grade. If unsuccessful, one rewrite will be allowed.

Delivery Formats

Online, Home Study, In Class

Outline

Topics Include:

- Small Water System - facility classification and operator certification, responsibilities, water supply and treatment regulations, potable water treatment standards
- Support Systems - introduction, pumps, valves, basic electricity, instrumentation and controls
- Water Sources & Treatment - groundwater and surface water quality, supply & treatment, special treatment processes, treatment waste handling and disposal
- Water Distribution Systems - piped distribution systems, potable water storage reservoirs, distribution pumps, system operation & maintenance
- Water System Operation - sampling, testing and reporting, maintenance management, safety, operating procedures & records, emergency response plans, drinking water safety plan
- Glossary and appendices included

COURSE MATERIALS:

Inclass: No manuals will be forwarded to students in advance of this course – the instructor will provide all material on-site including a course completion exam.

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