



North Saskatchewan Watershed Alliance

Annual Report

March 31, 2008



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NORTH SASKATCHEWAN WATERSHED ALLIANCE SOCIETY

Annual Report 2007- 2008

The North Saskatchewan Watershed Alliance (NSWA) was formed in 1997 by EPCOR, Trout Unlimited Canada, the Prairie Farm Rehabilitation Administration (PFRA) of Agriculture and Agri-Food Canada, TransAlta and the City of Edmonton Drainage Services Planning Branch. The NSWA provides a forum for sharing information and experience about issues affecting the North Saskatchewan River watershed in Alberta, and supports and initiates activities that positively impact the watershed. The NSWA is incorporated as a non-profit society in Alberta.

In May 2005 the Government of Alberta appointed the NSWA Society as the *Watershed Planning and Advisory Council* for the North Saskatchewan River (NSR) basin, under the terms and concepts embodied in *Water for Life: Alberta's Strategy for Sustainability*.

The NSWA's primary strategic goal for 2007-10 is the preparation of an *Integrated Watershed Management Plan* (IWMP) for the North Saskatchewan River basin. The development of the IWMP is a major undertaking and is aimed at protecting the long-term supply and quality of water resources for future generations. The Terms of Reference for this work were approved by Alberta Environment in 2005, and we are proceeding on a basin-wide planning process targeted for completion in 2010.

The NSWA is also involved in other strategic initiatives, including: the Vermilion River Watershed Management Pilot; securing the Canadian Heritage River designation for the North Saskatchewan River; and the ongoing role of providing a forum for communications, information exchange and education on a wide range of issues impacting the NSR watershed and its citizens.

The NSWA is a multi-stakeholder partnership and is now comprised of approximately 219 individual and organizational members with interests in the North Saskatchewan River watershed in Alberta (see membership list in Appendix A). The organizational members include the following sectors: municipalities; federal and provincial governments; aboriginal communities; industries; utilities; agriculture; environment and conservation groups; recreation; culture; tourism; education and research institutions; and individual citizens.

ORGANIZATIONAL GOALS

VISION of the NSWA

A watershed where ecological integrity is the foundation for environmental, cultural, social and economic decision-making. Actions taken and policies implemented will result in the wise use and management of the North Saskatchewan Watershed in Alberta.

The NSWA's primary goals are as follows:

- To promote and encourage collaborative watershed planning and decision-making
- To raise awareness, share information and promote watershed protection initiatives to our members and the wider community

- To foster the wise use and integrated management of land and water resources throughout the North Saskatchewan River basin
- To improve basin water quality by identifying human impacts and advocating for the enhancement of ecological function throughout the watershed
- Ensure the sustainability of the NSWA as the key watershed planning and advisory organization for the North Saskatchewan River Watershed

HIGHLIGHTS FOR THE YEAR ENDED MARCH 31, 2008

- April, 2007**
- Steering Committee prepares a detailed draft “Table of Contents” for the Integrated Watershed Management Plan
 - NSWA participates in Earth Day at Hawrelak Park, Edmonton
 - Ms. Mahrie Glab completes her administrative work for the NSWA
 - Ms. Teresa Hick is seconded from AENV for 12 months to provide ongoing administrative support to NSWA
- May, 2007**
- NSWA’s comprehensive report entitled “Instream Flow Needs Scoping Study” is completed and released (prepared by Golder Associates)
- June, 2007**
- Financial audit for fiscal 2006-07 completed by Gadowsky Lim and Associates
 - AGM is held and new officers elected to the Board of Directors.
 - Frank Vagi, P.Eng, steps down as president and is acknowledged for his many contributions to NSWA
 - NSWA participates in River Day at Rundle Park, Edmonton.
 - Gordon Thompson, P. Eng., hired on contract to oversee completion of AMEC’s Water Use and Demand Report
- July, 2007**
- NSWA Executive officers appointed by the Board of Directors.
 - Dr. Les Gammie (EPCOR) becomes new President of NSWA
- Aug, 2007**
- NSWA becomes a member of the Water Management Committee to develop the “Water Management Framework for the Industrial Heartland and Capital Region”
- Sept, 2007**
- NSWA meets with Buffalo Lake Metis Settlement
- Oct, 2007**
- Gordon Thompson, P. Eng., appointed as Technical Program Coordinator
 - Graham Watt-Gremm, M.Sc., appointed as Basin Planner
 - NSWA briefings made to County of Lamont and AAMDC Zone 5
 - NSWA briefings to upgrader group in Calgary
 - NSAWA presentation to the Alberta Lake Management Society
- Nov, 2007**
- NSWA’s comprehensive report entitled “Current and Future Water Use in the NSR Basin” is completed and released (AMEC)
 - NSWA paper presented at the “Partners for the Saskatchewan” Conference on Lake Winnipeg
- Dec, 2007**
- 2007-08 WPAC operating grant (\$450,000) received from AENV - *Water for Life*
 - Detailed three year IWMP technical work plan and budget are developed by staff and the IWMP Steering Committee

- Report entitled “Water Management Framework for the Industrial Heartland and Capital Region” is released by Alberta Environment
- Jan, 2008**
- Detailed planning strategy for the Vermilion River Watershed Management Pilot Study is completed in conjunction with Ducks Unlimited Canada, the North American Waterfowl Management Plan and other stakeholders
 - Detailed riparian assessment study is designed in conjunction with Alberta Conservation Association and Alberta Ecotrust
- Feb, 2008**
- Don Podlubny steps down as Chair of the IWMP Steering Committee and is acknowledged for his leadership and contributions to the NSWA
 - Sharon Reedyk, P. Biol., (PFRA) appointed as new Chair
 - Detailed funding request for 2008-09 prepared and submitted to AENV for funding under Water for Life
- March, 2008**
- Preliminary IWMP studies on water quality and water supply (Golder), economics (ARC) and shared governance (Teleologic SRC) are completed for NSWA
 - Review of NSWA web site initiated
 - Development of a new mini-atlas for the NSR watershed is initiated

FINANCIAL OVERVIEW

An audited financial statement for the fiscal year April 1, 2007 to March 31, 2008 was prepared for NSWA by Gadowsky Lim and Associates of Edmonton.

The NSWA began the fiscal year on April 1, 2007 with \$348,152 in total fund balances, and completed the fiscal year on March 31, 2008 with \$508,857 in total fund balances. Full details are available in the audited financial statement.

We thank Trout Unlimited Canada and the City of Edmonton for continuing to provide in-kind support to NSWA operations in 2007-2008. These contributions provided payroll and benefits administration, office space and computer support for our operations.

We also thank Alberta Environment, Ducks Unlimited Canada, EPCOR, the City of Edmonton, Petro-Canada, Alberta Beef Producers, and PFRA for providing direct cash contributions to support both NSWA operations and projects during the fiscal year.

Members of our Board of Directors and IWMP Steering Committee also provide much in-kind support in terms of their time, expertise and travel costs. NSWA gratefully acknowledges the contributions of these individuals and their respective organizations.

PROGRAM OVERVIEW

Integrated Watershed Management Plan (IWMP)

NSWA's capacity to develop and lead the basin planning process was much improved during 2007-08. New staff members were hired and the funding base has increased substantially. The IWMP Steering Committee has been provided with a more effective level of support.

In late 2006 NSWA retained Golder Associates to develop an Instream Flow Needs assessment approach in support of IWMP development. Their report was completed and released in May 2007. The report identified a diversity of aquatic ecosystem assessment needs, including channel morphology, hydrology, riparian ecosystems, fisheries, habitat modeling, and water quality.

In order to move forward on developing the IWMP, the Steering Committee and staff defined a number of broad water science tasks needed to begin the planning process. For each task, sub-tasks were identified and scheduled over the next three years. This work plan was used to prepare an application to Alberta Environment in June 2007 for project funding under *Water for Life*.

Funding approval was received late in the 2007-08 fiscal year, which limited the work that could be accomplished. Golder Associates were requested to submit a proposal to accomplish as much of the Watershed Assessment Task as possible before fiscal year-end. Based on their proposal Golder was contracted for three sub-tasks: Identification of watershed stressors and indicators; selection of a suitable water quality model for basin planning purposes; and hydrologic modeling of water supply by sub-watershed to determine yield and variability. At year-end these tasks were substantially complete, but some work has continued into fiscal 2008-09.

The IWMP Steering Committee also identified the need to integrate economics into the planning process. In order to scope a direction forward, Dr. Marian Weber of the Alberta Research Council was contracted in January 2008 to propose a general economic framework to support IWMP development. The key to the framework that was proposed is the development of tools for cost-benefit analysis. The USEPA's "Framework for Economic Assessment of Ecological Benefits" served as the model for that discussion.

The IWMP Steering Committee also identified the issue of governance as a critically important issue facing IWMP development and implementation. The firm Teleologic Strategic Communications was contracted in January 2008 to develop a consultative approach and to provide recommendations on the overall topic of watershed planning and governance. A task group under the Alberta Water Council has been working on the same topic and NSWA will receive advice from both sources on this issue.

The report "Current and Future Water Use in the North Saskatchewan River Basin" was prepared by AMEC Earth and Environmental Ltd. and submitted to NSWA in November 2007. This report categorizes and quantifies water allocations and current actual water use in each of 12 sub-basins within the North Saskatchewan River watershed. It also projects future water requirements over the next 25 years by sub-basin and use category for low, medium and high growth scenarios.

Vermilion River Watershed Management Pilot

The Vermilion River Watershed Management Pilot (VRWMP) is a collaborative project of the NSWA, the Alberta North American Waterfowl Management Plan Partners (ANP), and the North East Alberta Water Management Coalition (NEAWMC). The intent of the VRWMP is to research, assess and improve key aspects of watershed function in the Vermilion River sub-basin using a combination of approaches: scientific assessment; collaborative planning; and the development of local capacity for watershed management.

The Vermilion River watershed is one of the most altered sub-basins in the North Saskatchewan River Basin. Impacts on water quantity and quality have been noted and are thought to result from wetland drainage and modification, livestock management, tillage and municipal and industrial development. However, comprehensive water resources information is limited, and future watershed planning will require an assessment of information gaps and the development of monitoring and research programs. These programs will include: a diagnostic assessment that draws on the existing wetland inventory; hydrological modeling; land use; and economic assessments in order to guide decision-making about water management. Goals will be set that contribute to the improvement of watershed health and function.

Preliminary Terms of Reference for the VRWMP were developed by ANP and NSWA in 2005-2006, and funding from ANP has been approved for three years of coordination by NSWA.

NSWA will provide coordination, funding development, technical assistance and Board oversight to the project, and will gain valuable insight into sub-basin planning and implementation. Other participating organizations will include: municipalities in the sub-basin; Alberta Environment; Alberta Agriculture and Rural Development; Vermilion River Operations Advisory Committee; Holden Drainage District; Prairie Farm Rehabilitation Administration; and Ducks Unlimited Canada.

Industrial Heartland Water Management Committee

In response to several proposals for development of upgrader projects in the Alberta Industrial Heartland, Alberta Environment formed a Water Management Committee in August 2007 to develop an integrated, regional approach to industrial water supply and wastewater treatment. Representation on this committee included industry, municipalities, utilities and NSWA. The committee's report "*The Water Management Framework for the Industrial Heartland and Capital Region*" was released by Alberta Environment in December.

On October 2, 2007, the Honourable Rob Renner, Minister of the Environment, announced a new *Cumulative Effects Management Framework (CEMF)* for Alberta to protect air, land and water resources. The first application of the strategy was to develop a management framework for the Industrial Heartland with the Water Management Committee providing the water component. Implementation of the Industrial Heartland Water Management Framework began in January 2008 with the appointment of a Steering Committee chaired by Alberta Environment. NSWA is represented on this Committee by our Board Chair

It is not yet clear how this Framework will influence NSWA's IWMP processes. Significant integration and coordination of efforts will be required between NSWA, AENV and other parties to avoid duplication of efforts and to optimize collective resources. These new industrial development realities were not anticipated when the IWMP Terms of Reference were approved in 2005, nor was the *CEMF*.

Policy Reviews

NSWA Board and IWMP Steering Committee members, as well as NSWA staff, were heavily involved in the review of various draft policy initiatives related to watershed management during 2007-08. These initiatives were released by the Province of Alberta and the Alberta Water Council. Reviews were provided on the *Water for Life Renewal*, the *Land Use Framework*, the *Wetland Policy*, the *Shared Governance Framework* and the *Framework for Watershed Management Planning*. As with the *Cumulative Effects Management Framework* and the work

in the Industrial Heartland described above, there is significant potential for overlap with WPAC IWMP functions as laid out under *Water for Life* in 2003. NSWA will continue to work for clarification of roles and processes.

Development of a Riparian Assessment Tool

Riparian areas provide critical functions for watershed health. Water quality and other aquatic habitat features are protected by intact and stable riparian zones. The assessment, protection and restoration of riparian areas are essential aspects of watershed management. However, consistent and broad-scale data on riparian conditions are not available for the North Saskatchewan River Basin (NSRB).

To address this gap, NSWA has developed a proposal to integrate a suite of riparian assessment tools for broad-scale application and apply these methods to two streams in the Edmonton region (Strawberry Creek and Horsehills Creek) in summer 2008. Methods that are developed will be utilized in 2009 to assess riparian conditions across the basin to support Integrated Watershed Management Planning. This project is supported through funding from EPCOR and the City of Edmonton, and will be developed in collaboration with the Alberta Conservation Association. We have also applied to the Alberta Ecotrust Major Project Grant Program for funding support.

Web Site Renewal

NSWA is updating our web site. We are working with a local developer to implement an open-source content management system (CMS) called Drupal. Drupal makes creating and maintaining content for the website very easy, and offers many collaboration tools such as forums, polls, calendars, member management and shared photo galleries. Our new site will enable more interactive communications with stakeholders as we develop the Integrated Watershed Management Plan. Official launch is scheduled for July 15, 2008.

Mini-Atlas

NSWA needs new maps to communicate information about a range of issues and to increase stakeholders' understanding of watershed geographic context. Our current maps are either out of date or formatted in a way that makes it difficult to display in handouts, presentations and on the web. We are addressing this need through the creation of a mini-atlas containing a selection of maps and interpretation on themes including hydrology, terrain, land cover, land use, jurisdiction, population, and others. The first of these maps will be presented at the 2008 AGM. This project is made possible by the financial support of Alberta Beef Producers and Petro-Canada, and by the diligent production efforts of Candace Vanin and Shannon Hall of PFRA.

OTHER NSWA ACTIVITIES AND INITIATIVES

The NSWA has a long history of providing information and educational materials for the NSRB and acting as a forum for stakeholders to research, discuss and document water issues of collective concern. Our primary information products include the following documents, which are all available on the society website www.nswa.ab.ca.

- The North Saskatchewan River Guide (2002)
- The Community Watershed Stewardship Toolkit (2002)
- The Canadian Heritage Rivers Board Application: The Story of this River is the Story of the West (2005)
- The State of the North Saskatchewan Watershed Report (2005)
- The Integrated Watershed Management Plan Terms of Reference (2005)
- The Municipal Resource Guide (2006)
- Current and Future Water Use in the North Saskatchewan River Basin (2007)
- The North Saskatchewan River Instream Flow Needs Scoping Study (2007)

Lone Pine Publishing continues to distribute the River Guides to: Mountain Equipment Co-op (Edmonton and Calgary); Venturoso Books, Prince Albert, Saskatchewan; Mandolin Books, Map Town and McNally Robinson, Saskatoon. Sales remain steady!

The River Guide was also given as door prizes to a variety of NSWA member-sponsored events: Alberta Beef Producers; Paddling for Compassion; City of Edmonton Waste Management; Rocky Riparian Group; and the David Thompson Bicentennial Canoe Brigade.

NSWA BOARD OF DIRECTORS 2007/2008

Board members are elected at the Annual General Meeting and normally commit to two years of service from the date of the AGM. The Board members and executive officers for 2007/2008 are listed below.

Position	Name	Organization
President	Dr. Les Gammie	EPCOR Water Services
Vice-Pres	Douwe Vanderwel	City of Edmonton
Treasurer	Celeste Nicholson	Northeast Alberta Water Management Coalition
Secretary	Andrew Schoepf	Alberta Environment
Director	Ernie Ewaschuk	Land Stewardship Centre of Canada
Director	Bill Fox	Alberta Beef Producers
Director	Tracy Scott	Ducks Unlimited Canada
Director	Pat Alexander	Clearwater County
Director	Jamie Wuite	Alberta Agriculture and Rural Development
Director	Candace Vanin	Agriculture and Agri-Food Canada – PFRA
Director	Joe Blyan	Buffalo Lake Métis Settlement
Director	Jim Bague	Town of Rocky Mountain House
Director	Marie Johnson	Petro-Canada

NSWA STAFF

David Trew, P.Biol.

Billie Milholland, B.A.

Gordon Thompson, P.Eng.

Graham Watt-Gremm, M.Sc.

Teresa Hick

Executive Director

Basin Planner/Communications Manager

Technical Program Coordinator

Basin Planner

Administrative Support

NSWA MEMBERSHIP

We continue to involve as many stakeholder groups as possible in the NSWA. We believe that our membership should include the active participation of all sectors and user groups across the watershed.

The total membership at March 31, 2008 was 170 organizations and 49 citizen members. The NSWA grew by 25 members this past year and continues to grow. Some organizations have more than one representative, so our email distribution list currently contains over 400 individual names.

Member Meetings:

The seventh Annual General Meeting was held on June 22, 2007 in Edmonton to foster communication and education, and to share NSWA accomplishments with our members and the public. The fall and spring member meetings did not take place in this fiscal year, but will be re-established in the 2008-2009 budget year.

NSWA staff members attended meetings, workshops and open houses hosted by our member organizations and their affiliates to provide project updates, to distribute our products and to promote the NSWA vision.

Member Communications:

Members were kept informed of ongoing activities and news via monthly information bulletins (electronic) and updates on the web site. The Executive Director, President, Board members and Steering Committee members spent time in dialogue with many established and new members cultivating relationships and raising the profile of the organization. NSWA staff members wrote articles for several publications, including member organizations' newsletters.

Member Benefits:

- NSWA provides the opportunity to establish dialogue and partnerships between diverse stakeholder groups including agriculture, industry, municipalities, First Nations, and NGOs
- NSWA provides the opportunity to participate in the development of long-term management plans for water and land resources
- NSWA provides the opportunity to use financial and human resources collectively, to avoid duplication of efforts and to expand the knowledge base about the watershed
- NSWA provides the opportunity to increase and share the information about water resources and watershed management, cumulative effects management, best management practices and the overall links between human activities on the land and aquatic ecosystem protection
- NSWA provides the opportunity to raise public awareness on key issues and encourage widespread participation of stakeholders

Appendix A – NSWA Member List March 31, 2008**NON GOVERNMENT ORGANIZATIONS**

Alberta Conservation Association
Alberta Ecotrust
Alberta Lake Management Society
Alberta League for Environmentally Responsible Tourism (ALERT)
Bow River Basin Council
Bow River Project
Butte Action Committee for the Environment
Capital Health Authority
Alberta Riparian Habitat Management Society - Cows & Fish Program
Ducks Unlimited Canada
East Central Regional Health Authority
Edmonton and Area Land Trust
Energy Efficiency Association
Environmental Law Centre
Environmental Resource Centre
Federation of Alberta Naturalists
Fort Air Partnership
Lakeland Regional Health Authority
Land Stewardship Centre of Canada
Legacy Lands Conservation Society
Northeast Alberta Water Management Coalition
Northwest Alliance Conservation Initiative
Parkland Residents Association
Partners FOR the Saskatchewan River Basin
Pembina Institute for Appropriate Development
Rocky & Nordegg Cooperative Fisheries Inventory Program
Rocky Riparian Group
Rossdale Community League
Saskatchewan Watershed Authority
Sierra Club, Prairie Chapter
Sombrilla
The Living by Water Project
TOPSOIL
Toxics Watch Society of Alberta
Tri-town Environmental Society
Trout Unlimited Canada
Vermilion River Naturalist Club

RESEARCH/EDUCATION

Edmonton Catholic Schools
Edmonton Science Outreach Network
Foothills Model Forest

Inside Education
Riverwatch
SEEDS Foundation (Society, Environment and Energy Development Studies)
The King's University College
University of Alberta; Kinsella Research Station; Department of Renewable Resources
University of Alberta; Environmental Watch Network
Water Institute for Semi-arid Ecosystems
YoWoChAs

CULTURE/RECREATION/TOURISM

Alberta Fish & Game Association
Alberta Recreation Canoe Association
Alberta Sport, Recreation, Parks and Wildlife Foundation
Alberta Trailnet Society
Avatar Productions
Dickson Fish & Game Association
Edmonton & District Historical Society
Garbaganza
Kalyna Country
Midwest Tourism
Northeast Edmonton Heritage Conservation Initiative
Northwest Voyageurs Canoe and Kayak Club
River Valley Alliance
Riverland Recreational Trail Society
The Great Canadian Adventure Company
The Iron Horse Trail
Thorsby Fish & Game Association
Voyageur Ventures

AGRICULTURE

Alberta Beef Producers
Canadian National Committee for Irrigation Drainage
Grey Wooded Forage Association
Intensive Livestock Working Group
Restorative Ecological Agriculture Projects Society
St. Mary's Irrigation District
St. Paul Grazing Reserve

INDIGENOUS

Asokan Project
Buffalo Lake Seniors Society
Enoch First Nation
First Nations Alberta Technical Services Advisory Group

Métis Nation of Alberta
Paul First Nation
Saddle Lake Tribal Administration

INDUSTRY

Alberta Capital Region Wastewater Commission
Alberta Industrial Heartland Association
AMEC Earth & Environmental Ltd.
Aquality Environmental Consulting
Aquascience
Associated Engineering Alberta Ltd
Dillon Consulting Ltd.
EBA Engineering Consultants Ltd.
ECL Environmental Services Limited
EduTransfer Design Association Inc.
Elk Point Chamber of Commerce
EnviroMak
EPCOR Water Services
Golder Associates
Ground Water Information Services
Komex International
Noble Resource Management Ltd.
Northeast Capital Industrial Association
Nova Chemicals Corporation
Parkland Stone Landscaping
Petro-Canada
Shell Canada Ltd.
Stantec Consulting Ltd
Strathcona Industrial Association
Sunpine Forest Products
The Canadian Salt Company Limited
Top Draw
TransAlta Utilities Corporation
UMA Engineering
Weyerhaeuser

GOVERNMENT**FEDERAL**

Agriculture & Agri-Food Canada, Prairie Farm Rehabilitation Administration
Agriculture and Food Council
Parks Canada Agency; Banff National Park; Elk Island National Park
Fisheries and Oceans Canada
Indian & Northern Affairs Canada

PROVINCIAL

Alberta Agriculture & Rural Development,
Alberta Environmentally Sustainable Agriculture
Alberta Tourism, Parks and Recreation
Energy Resources Conservation Board
Alberta Environment
Alberta Health and Wellness
Alberta Municipal Affairs
Alberta Sustainable Resource Development

MUNICIPAL

Alberta Urban Municipalities Association
City of Edmonton; Community Services, Drainage Services, Planning &
Development
City of Fort Saskatchewan
City of Leduc, Environmental Advisory Board
City of Lloydminster
City of Spruce Grove
City of St. Albert
North West Alliance Conservation Initiative
Town of Bruderheim
Town of Devon
Town of Drayton Valley
Town of Elk Point
Town of Gibbons
Town of Rocky Mountain House
Town of Smoky Lake
Town of Tofield
Village of Marwayne

Counties & MD:s

Beaver
Clearwater
Lac Ste Anne
Lacombe
Lamont
Leduc
Minburn #27
Parkland
Red Deer
Smoky Lake
St. Paul #19
Strathcona, Engineering & Environmental Planning, Environmental Operations
Sturgeon
Two Hills #21

Vermilion River #24
Wetaskiwin #10
M. D. Brazeau

CITIZEN MEMBERS – 49 citizen members

WATERSHED STEWARDSHIP GROUPS

Battle Lake Watershed Enhancement Association
Beaverhill Watershed Initiative
Big Lake Environment Support Society
Bonnie Lake Sustainability Association
Devon Watershed Alliance
Friends of Lily Lake
Iron Creek Watershed Improvement Society
Rocky Riparian Group
Vermilion River Watershed Initiative
Wizard Lake Watershed and Lake Stewardship Association