

# Vermilion River

WATERSHED ALLIANCE



## 2017-2018 annual report



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8 June 2018

Prepared by:





## INTRODUCTION

The Vermilion River Watershed Alliance (VRWA) is made up of local volunteers working side by side in the watershed (Figure 1). General members come from local towns and counties, federal and provincial governments, conservation groups, and the public. The VRWA also has a strong partnership with the North Saskatchewan Watershed Alliance (NSWA).

The VRWA is guided by the goals, directions, and actions of the Vermilion River Watershed Management Plan (2012). This plan was designed with input from the public to define what the watershed means to those who live, work, and play here. The VRWA believes the watershed is the unit of management for human activities that affect the environment, including air, land, water, and wildlife.

VRWA Goals (as listed in the 2012 VRWMP)

- Develop capacity and knowledge in the watershed
- Improve reliability of surface water supply
- Improve and maintain surface water quality
- Improve and maintain water ecosystem health
- Protect and sustain groundwater quality and supply

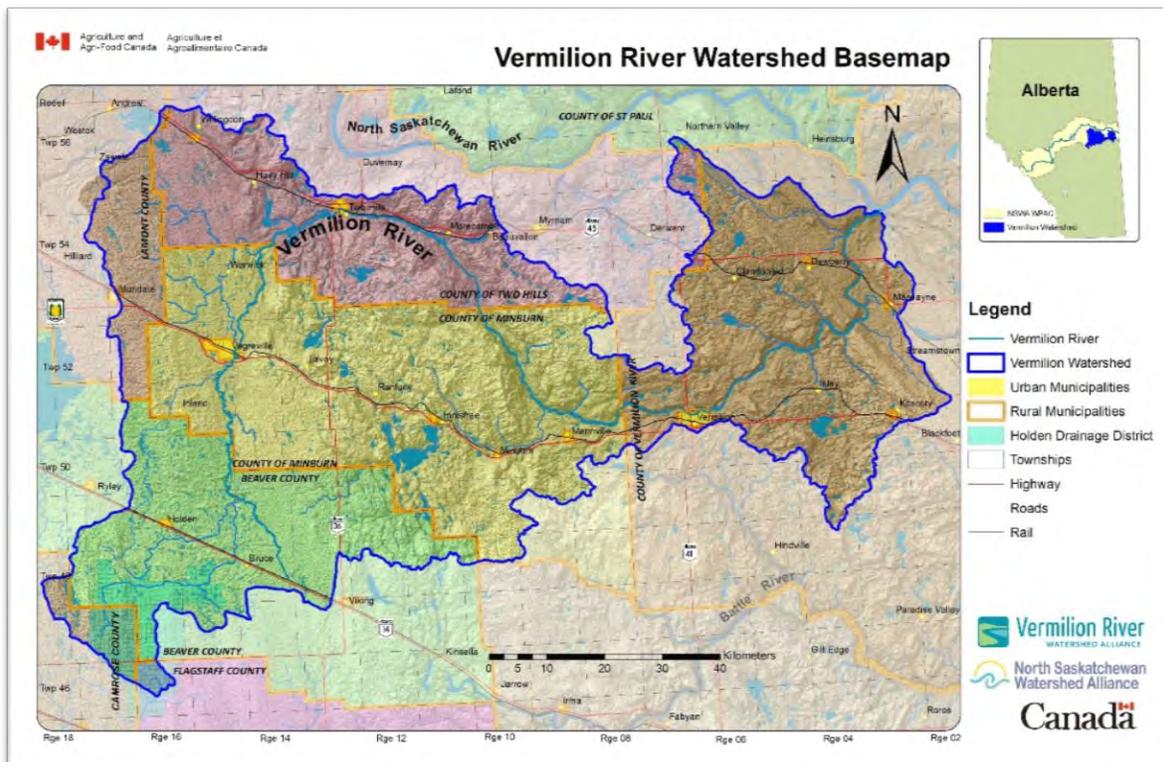


Figure 1: Vermilion River Watershed

## 2017-2018 BOARD OF DIRECTORS

The VRWA is governed by a Board of Directors elected from and by the membership to serve a minimum two-year term. The Board is structured to represent all major stakeholder sectors. The current VRWA Board of Directors is comprised of the following individuals/organizations:

Position	Name	Organization
Chair	David Berry	Town of Vegreville
Vice-Chair	Ed Parke	Member-at-large
Treasurer	Elaine Sorochan	Town of Two Hills
Secretary	Chris Elder	Alternative Land Use Services
Director	Candace Vanin	Agriculture and Agri-Foods Canada
Director	Murray Phillips	County of Two Hills
Director	Roger Konieczny	County of Minburn
Director	Stacey Hryciuk	County of Vermilion River
Director	Richard Yaceyko	Town of Vermilion
Director	Barry Bruce	Beaver County
Director	Jessica Hryciuk	Lakeland College
Director	Gary Walsh	Alberta Environment & Parks
Director	Ralph Boe	Agricultural seat
Director	Bryon Wolters	Ducks Unlimited Canada
Director	Al Corbett	Alberta Drainage Council; NSWA
Director	Carlin Soehn	Alberta Environment & Parks
Director	Jordan Smith	Counties of Minburn/Vermilion River
Director	Tim Knudsen	Holden Drainage District
Student observer	Grace Turner	Lakeland College

The VRWA board is supported by the following NSWA staff:

- Leah Kongsrude, Executive Director
- Mara Erickson, Extension & Stewardship Coordinator
- Grace Turner, Watershed Planning Intern

***A special thank you to David Trew, outgoing NSWA Executive Director, for his involvement and many years of service to the creation of the Vermilion River Watershed Management Plan and the Vermilion River Watershed Alliance!***



## VERMILION RIVER WATERSHED RESTORATION & ENHANCEMENT PROJECT

The NSWA is partnering with the VRWA to restore and enhance wetlands and riparian areas in the Vermilion River Watershed (VRW). With funding from the Watershed Resiliency and Restoration Program and two grants from Environment & Climate Change Canada (Table 1), activities under these grants are collectively managed by the NSWA as the Vermilion River Watershed Restoration & Enhancement Project (VRWREP).

Table 1: VRWREP Funding Sources, deliverables, goals and **total** grant amounts\* for the period 2015-2018

Funding Source	Deliverables	Goals	Grant (\$)
<b>Watershed Resiliency &amp; Restoration Program (WRRP), Government of Alberta**</b>	Restore degraded or lost, or enhance existing wetland and riparian areas in the Vermilion River watershed: Wetlands = 40 ha total Riparian areas = 10 km total (20 ha equivalent)	Improve watershed resiliency to floods and drought	1,445,000
<b>National Wetland Conservation Fund (NWCF), Environment Canada</b>	Restore degraded or lost wetlands in the Vermilion River watershed = 24 ha total	Improve biodiversity and watershed function	534,254
<b>EcoAction Community Funding Program (EcoAction), Environment Canada</b>	Restore degraded riparian areas in the Vermilion River (main stem) = 2 km (equivalent 4 ha), and conduct a survey of aquatic species & habitat	Improve water quality, assess aquatic condition	100,000

\*Grants managed and reported on by NSWA; \*\*Grant period extended through March 2019

### VRWREP Highlights

The NSWA received an extension on its Watershed Resiliency and Restoration Program (WRRP) grant. The extension will allow for additional riparian and wetland restoration/enhancement projects, more opportunities for partnership building, and wetland/riparian-related communications activities in the basin.

This year marked the close of two grants from Environment and Climate Change Canada: 1) the EcoAction Community Funding Program (EA) and 2) the National Wetland Conservation Fund (NWCF).

In 2017-18, the EA grant helped to fund enhancement projects along 3.93 kilometers of the Vermilion River mainstem. These projects are two of five overall EA-funded Vermilion River riparian projects in four municipalities in the watershed, affecting a total of 6.68 kilometers and managing access of >400 head of cattle to those sensitive areas.



NWCF-funded activities in 2017-18 included: 1) Wetland restoration and 2) Communications. Communications work focused on attending and hosting community events to highlight the importance of wetland restoration, as well as recognizing the stewardship actions of our landowner project partners and acknowledging project funders. Through an agreement with Ducks Unlimited Canada (DUC), 24 hectares of wetlands were restored between two projects in two municipalities in the watershed. An additional 1-hectare wetland was restored using NWCF funds through a VRWREP landowner project in a third municipality (see next section for details).



## VRWREP Landowner Projects

As the grant holder, the NSWA received 27 new project proposals from 17 landowners in the 2017-18 project season. Twenty proposals were approved by the VRWREP selection committee.

Accepted projects were located in four different municipalities in the VRW (Figure 2), in the prairie and parkland natural regions. All 2017-18 projects were in either native or tame pasture, except for one project implementing a grass buffer in a cropped area.

The number/type of applications received and accepted during the 2017-18 application round is as follows:

- **27 project proposals received** (11 riparian enhancement, 15 wetland enhancement, 1 wetland restoration) from 17 landowners.
- **20 projects accepted** (5 riparian, 15 wetland). Projects not accepted were either 1) ineligible as per the conditions of the grant or 2) withdrawn by the landowner.
- **16 projects commenced** (4 riparian, 11 wetland enhancement, 1 wetland restoration)
- **7 projects completed** (2 riparian, 4 wetland enhancement, 1 wetland restoration)



*Above and above left: A project site on the Vermilion River*

Including one project approved in a prior season, eight landowner-directed projects were completed in 2017, which resulted in riparian enhancement along 2 kilometers of creeks and the Vermilion River, and 29 hectares of wetlands protected, enhanced, or restored. As most project participants implemented exclusion fencing and alternative watering systems to either prevent or sustainably manage livestock access to natural waterbodies, these projects will mitigate the negative effects of over 600 head of cattle to wetlands and riparian areas in the Vermilion River Watershed.

Of the remaining 13 projects, nine are still in progress and four were deferred to the 2018-19 season. In addition, four uncompleted projects from 2016-17 are still in progress. A pre-works health assessment summary was completed for each project and—if applicable—a post-works assessment was done for projects that were completed in 2016. Assessment methodology was adapted from [Cows & Fish](#)'s riparian and wetland health assessment protocol.

**As of 31 March 2018**—including 2016 and 2017 WRRP, EA, and NWCF projects—the completion of eight riparian and eleven wetland projects have resulted in approximately **9.4 kilometers of riparian areas enhanced, 48 hectares of wetlands enhanced, and 25 hectares of wetlands restored.**

VRWREP Evaluation 2015-18

The VRWREP has had a positive effect on both the people as well as terrestrial, riparian and aquatic ecosystems in the VRW region. For those who took part in enhancement projects in 2016 and 2017, the access to funding to implement projects they have been wanting to incorporate into their operation has been appreciated. For instance, when asked what motivated a project participant to apply, they responded:

*I've wanted to improve the quality of the water for livestock use and keep the water clean for aquatic life by keeping cattle out of the water. I also wanted to keep the riparian area in a healthy state by removing constant livestock pressure. This program helps with financial assistance to make it possible.*

*-VRWREP participant, Minburn County*

*Costs to individuals can be prohibitive; however, with [project] support, projects which have long term environmental benefits to people, wildlife, vegetation, and above all—water quality—become a positive reality.*

*-VRWREP participant, Vegreville*

The targeted promotional component of the VRWREP has raised the profile of the VRWA in the community. As well, these projects have helped to solidify partnerships with other organizations in the area who are keen to collaborate on projects, such as the ALUS program, the Agro-forestry Woodlot Extension Society, Cows & Fish, and DUC.



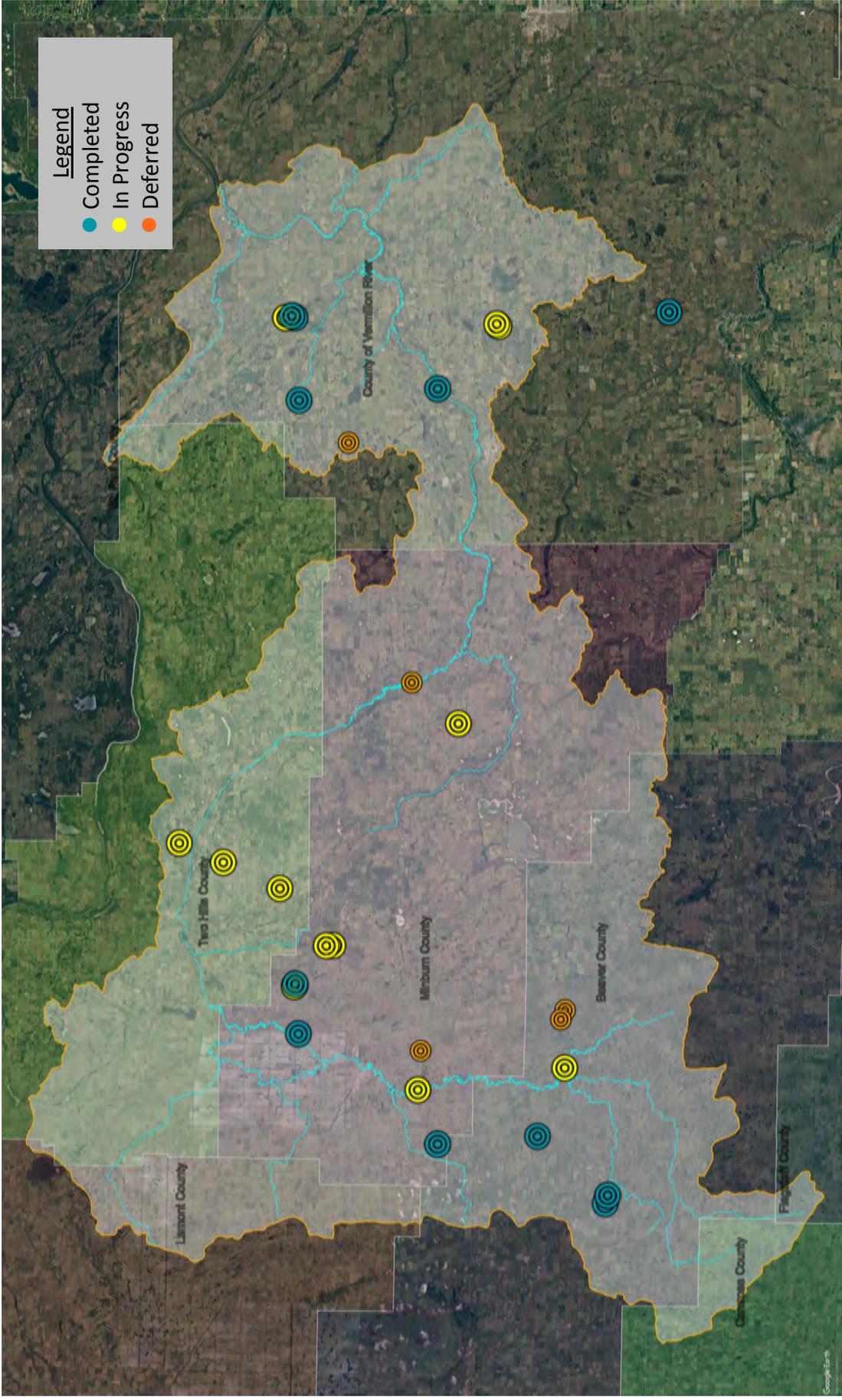


Figure 2: Locations of landowner VRWREP projects completed (blue), in-progress (yellow), and deferred (orange) during the 2017-18 season. Counties are represented by different colours within the watershed boundary

## ALCES PROJECT

A project by the ALCES Group Ltd.—funded through a WRRP grant held by the NSWA—includes the identification and evaluation of strategic priorities for watershed resiliency & restoration in the Vermilion River Watershed. The goal is to take a comprehensive, cumulative effects modelling approach to further guide watershed management and restoration efforts.

An initial August 2017 stakeholder meeting followed by a November 2017 project update was attended by the VRWA Board of Directors plus other interested community stakeholders. To date, a hydrologic model has been developed using the Raven Hydrologic Modelling Framework covering the period 1985 to 2016 given that this is the period when meteorological and hydrometric data were most complete. Overall, the model is simulating the water balance well and comparing well with previous studies (Figure 3).

The ALCES Group is continuing to refine the hydrologic portion of the model and is preparing for integration with the land use component of the project in the ALCES Online simulator. Work has also started on developing land use scenarios in ALCES Online to evaluate conservation and restoration strategies in the VRW.

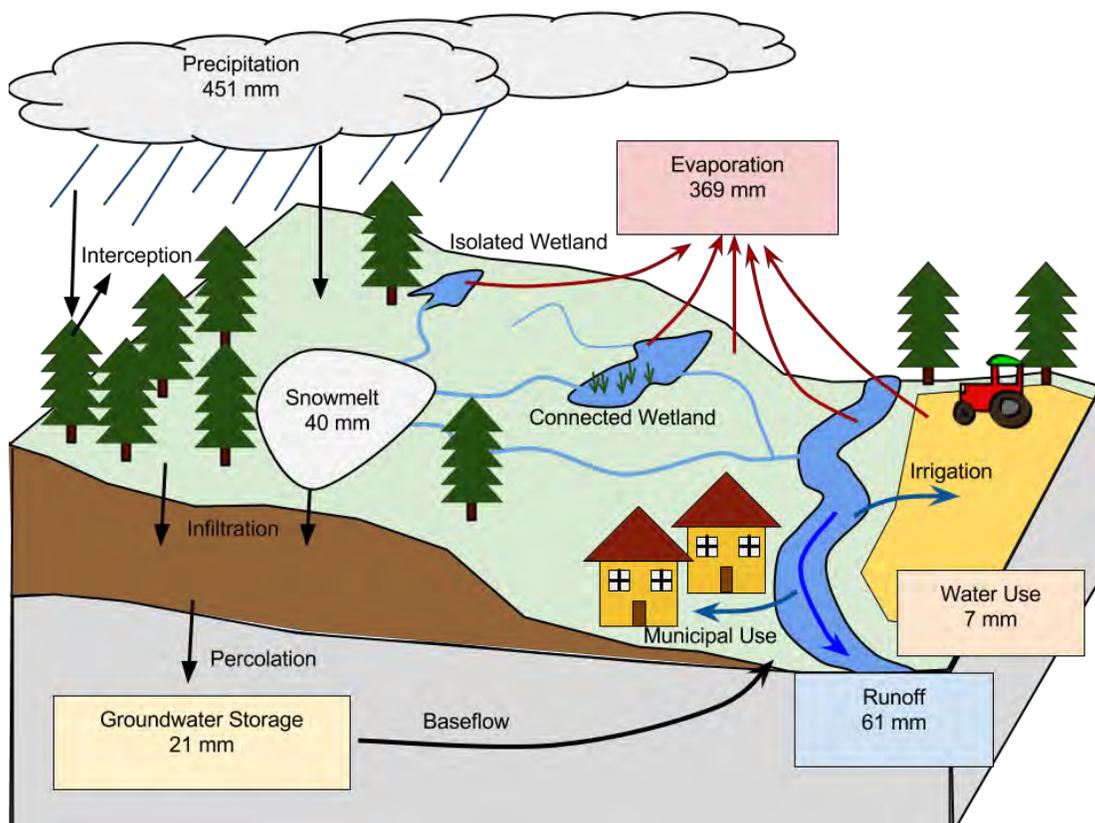


Figure 3: Conceptual water balance for the Vermilion River Watershed.

## SOCIETY BUSINESS

During the 2017-18 fiscal year, the VRWA held its second Annual General Meeting in Bruce (June 2017), passed the Terms of Reference for the Board of Directors, hosted a successful Open House (February 2018) and continued building community partnerships through participation in events and projects. In addition to events and the AGM, the VRWA board held two regular board meetings (November '17, January '18).

## EDUCATION AND ENGAGEMENT

Education and engagement is a major focus of the VRWA; both facets are incorporated in each of the five goals within which the Alliance operates. To both cultivate watershed knowledge and encourage participation of stakeholders in improving watershed health, the VRWA participated in the following events in 2017-18:

- Two Hills Trade Show (April 2017)
- Hay Clandonald (January 2018)
- VRWA Open House (February 2018): The Open House specifically was designed to 1) promote the VRWREP and invite landowners to apply for funding 2) recognize and thank current participants of the VRWREP, and 3) recognize and thank the funders of the program. A welcome and greeting was provided by Town of Vermilion Councillor Robert Pulyk, as well as by Dr. Richard Starke (MLA Vermilion-Lloydminster).
- Agri-Visions (February 2018)
- Lamont County Water Workshop (March 2018)

In addition to in-person events, the VRWA was promoted through print media (local newspapers), TV (Newcap news), Radio (County 106.5, 'Call of the Land'), online (local municipal newsletters, NSWA & VRWA websites), and snail-mail (watershed-wide project postcard mailout). Gate signs were created to recognize VRWREP project participants as partners in watershed health. The signs are durable, weather-proof, and acknowledge the VRWA, NSWA, and funding partners (Figure 4).



Figure 4: VRWREP project participant gate sign (24"x18")

## FINANCIAL INFORMATION

Vermilion River Watershed Alliance Financial Statement for the year ending March 31, 2018:

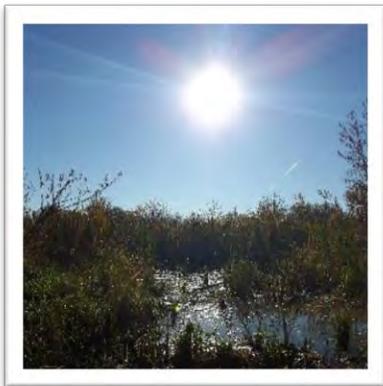
### Statement of (unrestricted) Revenues and Expenditures

Revenue	\$5,314.67
Expenditures	\$0.00

### Statement of Financial Position

Assets	\$5,429.10
Liabilities	\$0.00

Including board meetings, event and committee participation, and mileage, the value of VRWA's in-kind services & travel support for 2017-18 was \$52,414.





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