



North Saskatchewan Watershed Alliance

In partnership with the



Vermilion River Watershed Restoration & Enhancement Project

Funding for Individual Private Landowners

This project was undertaken with the financial support of:
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Environment and
Climate Change Canada

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Application Guide
Updated January 2017

Application Guide contents

- Introduction
- Definitions
- Eligibility
- Appendix A
- Appendix B



INTRODUCTION

Wetlands and riparian areas are ecosystems that provide water storage, flood attenuation, sediment and contaminant retention, wildlife habitats, biodiversity, and recreational opportunities. These Ecological Services benefit people, other living organisms, and the overall functioning of interconnected natural systems within watersheds. Conservation and restoration of wetlands and riparian areas in Alberta are needed for sustainably functioning watersheds.

The North Saskatchewan Watershed Alliance (NSWA) received grants to restore or enhance wetlands and riparian areas in the Vermilion River watershed (see map) for the period 2015-2018. Projects under these grants will be managed in partnership with the Vermilion River Watershed Alliance (VRWA) and are collectively called the **Vermilion River Watershed Restoration & Enhancement Project (VRWREP)**.

The VRWREP will implement recommended actions of the *Vermilion River Watershed Management Plan (2012)* ([www.nswa.ab.ca/Subwatershed Plans](http://www.nswa.ab.ca/Subwatershed_Plans)) under its **Goal 2** - Improve reliability of surface water supply, **Goal 3** - Maintain or improve surface water quality, and **Goal 4** – Maintain or improve aquatic ecosystem health.

Funder	Deliverables	Goals
Watershed Resiliency & Restoration Program (WRRP), Government of Alberta	Restore degraded or lost, or enhance 40 ha of existing wetland and 10 km of riparian areas in the Vermilion River watershed.	Improve watershed resiliency to floods and drought.
National Wetland Conservation Fund (NWCF), Environment Canada	Restore 24 ha of degraded or lost wetlands in the Vermilion River watershed.	Improve biodiversity.
EcoAction Community Funding Program, Environment Canada	Restore 2 km of degraded riparian areas on the Vermilion River main stem, and conduct a survey of aquatic species & habitat.	Improve water quality, assess aquatic condition.

FAQ

Q. What will the VRWREP do for me?

A. The VRWREP provides financial support to private land owners within the Vermilion River watershed who are interested in restoring degraded or lost natural wetlands and riparian areas, to enhancing existing natural wetlands and riparian areas, or to establish riparian buffers within their lands.

Q. What types of projects are considered?

A. Many! For example, managing livestock access coupled with an off-stream watering system, planting native vegetation, removing invasive plant species, etc. Other examples are in APPENDIX A of this Application Guide. You may also propose your own idea.

Q. How do I know if I'm eligible?

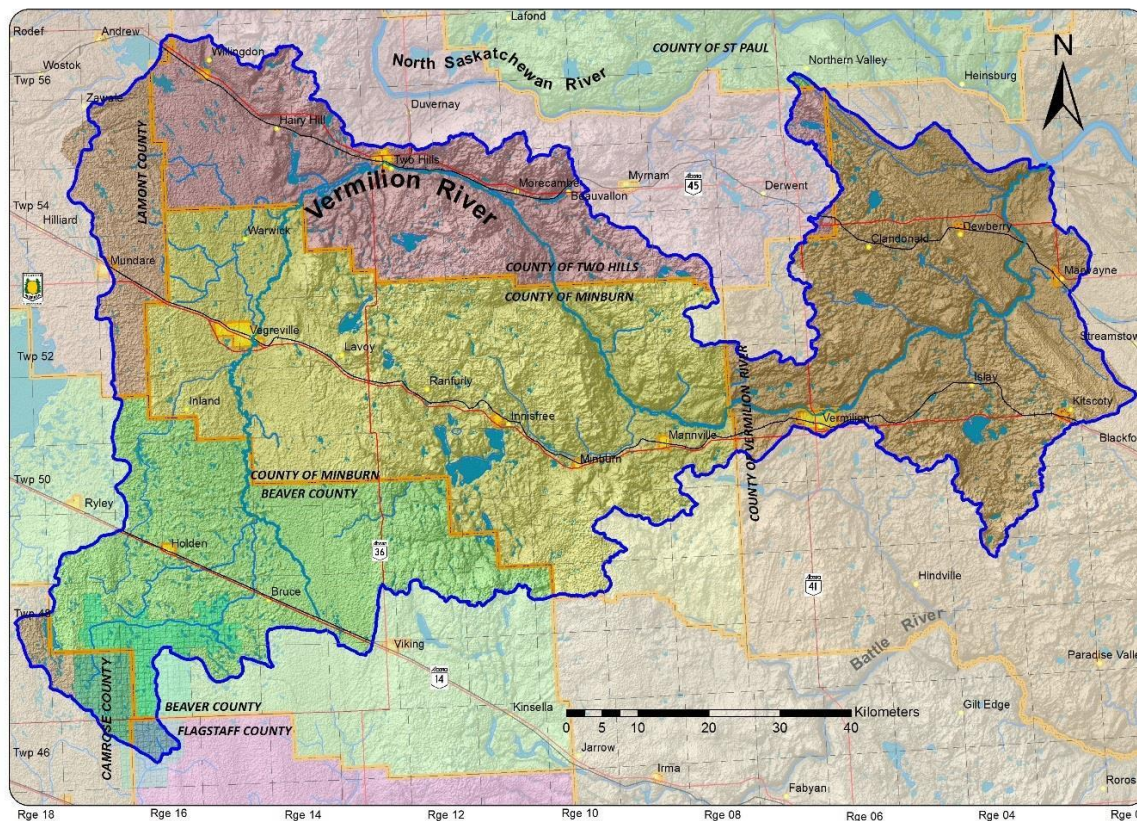
A. Landowners within the Vermilion River Watershed are invited to propose projects to be funded by the VRWREP. Specific applicant and project eligibility details can be found in the ELIGIBILITY and APPENDIX B sections of this Application Guide.

Q. When are applications due? If my project is approved, when must it be completed?

A. Applications are due by **March 1, 2017**. All project-related activities must be completed by **March 15, 2018**.



Vermilion River Watershed Basemap



Legend

- Vermilion River
- Vermilion Watershed
- Urban Municipalities
- Rural Municipalities
- Holden Drainage District
- Townships
- Highway
- Roads
- Rail



Additional inquiries and/or assistance with the Application Form can be directed to Mara Erickson, Extension & Stewardship Coordinator, 587-525-6830, mara.erickson@nswa.ab.ca.

DEFINITIONS

The following definitions apply to the Application for funding under the VRWREP:

Applicant – the landowner submitting a completed Application Form to restore or enhance a wetland(s) or riparian area(s), or establish a riparian buffer(s) as Eligible Projects within the Vermilion River watershed and meets the Eligibility criteria.

Application Form – the prescribed Application Form for funding under the VRWREP.

Application – consists of the completed Application Form with the signed Applicant Declaration page, and other documents that the Applicant submits with the Application Form.

Approval Letter – the Letter sent out by the NSWA Executive Director to the Applicant notifying the Applicant that his/her proposed project in the submitted Application Form has been approved for funding through the VRWREP along with details on the total funding provided, amendments (if any) to the proposed project, conditions; and schedule of deliverables, invoices and payments.

Approved Project – is a landowner proposed project that has received an Approval Letter, and meets the Eligibility criteria (Please see the ELIGIBILITY section).

BMPs – Agricultural Beneficial Management Practices recommended by Alberta Agriculture and Forestry.

Degraded – a condition of an ecosystem when it has lost some of its functions due to human activities and is capable of natural recovery upon restoration. (VRWREP does not cover 'degradation' due to natural processes).

Deliverables – specified area of wetland or riparian area that is restored or enhanced, or riparian buffers established, within a specified period as stated in the Approval Letter.

Ecosystem – a community of interacting living organisms and their physical environment, such as wetlands, riparian areas, aquatic, and uplands (terrestrial) ecosystems.

Enhancement - increasing one or more functions performed by an existing wetland/ riparian area beyond what currently or previously existed.

Lost – a condition when an ecosystem has lost all its functions; physically obliterated – filled-in, drained, built-upon, or put to other uses (examples: agriculture; urban, commercial, industrial and recreational development; or infrastructure).

Project Term – the period between the start date and the end date for an Approved Project stated in the Approval Letter.

Project Work Schedule – the project work schedule stated in the Approval Letter for an Approved Project.

Restoration – is the rehabilitation of a degraded wetland /riparian area, or the re-establishment of a former wetland/riparian area, to a pre-disturbance condition (refer to historical documents if available) or as close to that condition as possible (refer to current existing natural condition). Note: The recovery of a restored site after the initial restoration efforts or intervention may take decades (beyond the VRWREP period).

VRWREP – is the short name for the Vermilion River Watershed Restoration & Enhancement Project.

*Note: Riparian areas of rivers/streams and lakes may have their respective **riverine or shoreline wetlands**. The areas around wetlands may be considered riparian areas. However, for the purpose of the VRWREP, riparian areas and riparian buffers refer to areas adjacent to a river, stream or lake (which are the main focus of VRWREP); while wetlands refer to **isolated wetlands** (completely surrounded by land) for example, marshes and shallow open water, and the area around a wetland is a wetland buffer.*

Riparian areas – are transitional between terrestrial and aquatic ecosystems and are distinguished by changes (from upslope to downslope) between the terrestrial and aquatic ecosystems, in soil characteristics, soil moisture, vegetation and other living organisms, microclimate and other natural processes. They include those portions of the terrestrial ecosystem where there are exchanges with the aquatic ecosystem in the provision of food source, nutrients, and organic matter. Riparian areas are adjacent to perennial, intermittent, and ephemeral streams and lakes, and include their existing riverine or lake margin wetlands. Note: The establishment and maintenance of riparian buffers around wetlands is considered as a form of wetland enhancement.

Riparian buffer – is a buffer of perennial vegetation between the top of the bank (of a river, stream or lake) and the edge of a crop field. Its purpose is to minimize potential impacts of operations on the adjacent water body. The establishment of a Riparian buffer is an Eligible Project. Buffer widths of 20 to 30 m are strongly recommended.

Wetlands – are lands saturated with water long enough to promote formation of water altered soils growth of water tolerant vegetation, and various kinds of biological activity that are adapted to the wet environment (Alberta Wetland Policy, 2013). Wetlands generally include sloughs, marshes, swamps, bogs, fens, and shallow open water (Alberta Wetland Policy, 2013). Marshes and shallow open water (also called sloughs) are commonly found in the Vermilion River watershed. Common indicator vegetation includes cattails, bulrushes, burr reed, sedges, and willows. Based on location on the landscape, wetlands can be '**isolated**' (within uplands), '**riverine**' (at the edge of streams), or '**shoreline**' (lake margin) wetlands. VRW Restoration & Enhancement Project is focused on isolated wetlands; riverine and lake margin wetlands are covered under Riparian areas.

Wetland buffer – is a buffer of perennial vegetation between the edge of the wetland and the crop field. Its purpose is to minimize potential impacts of operations on the wetland as well as protect wildlife species that use the area around the wetland as habitat. VRWREP considers the establishment of a wetland buffer as a form of wetland enhancement. Buffer widths of 10 to 20 m are strongly recommended.

References:

- Fischer, R. A. and Fischenich, J. C. 2000. Design Recommendations for Riparian Corridors and Vegetated Buffer Strips. US Army Engineer Research and Development Centre, Environmental Laboratory, MS, USA.
- Government of Alberta. 2013. Alberta Wetland Policy.
- Government of Alberta. 2012. Stepping Back from Water: A Beneficial management Practices Guide for New Development Near Water Bodies in Alberta's Settled Region
- Mitsch, W. J. and Gosselin, J. G. 2000. Wetlands. John Wiley & Sons Inc.
- National Academy of Sciences. 2002. Riparian Areas: Functions and Strategies for Management. US National Research Council.
- Stewart et al. 2010. Field Manual for Buffer Design for the Canadian Prairies. Agriculture and Agrifood Canada.
- USDA, NRCS. 2008. Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Service. United States Department of Agriculture Technical Note No. 190-8-76.

ELIGIBILITY

1.1. Eligible Applicants

- 1.1.1. To apply for financial support for a restoration and/or enhancement project, a person must be:
- the legal owner(s) of the private land(s) within the Vermilion River Watershed on which a wetland and/or riparian areas is/are to be restored or enhanced; and/or riparian buffers are to be established.

1.2. Eligible Projects

- 1.2.1. Eligible Projects must be located within the Vermilion River watershed (see map in INTRODUCTION).
- 1.2.2. An Eligible Project must have an Eligible Applicant.
- 1.2.3. An Eligible Project includes a set of necessary activities that will achieve any of the VRWREP deliverables (see INTRODUCTION, Table 1).
- 1.2.4. An Eligible Project may include a combination of restoration and enhancement practices, and agricultural beneficial management practices (BMPs). Examples are listed in APPENDIX A. The Applicant may propose other practices that will support and achieve the VRWREP deliverable(s) (see INTRODUCTION, Table 1).
- 1.2.5. An Eligible Project must restore or enhance of a wetland or riparian area, or establish riparian buffers adjacent to a river/stream or lake. The implementation of agricultural BMPs alone on the uplands adjacent to a wetland or water body, does not qualify as an Eligible Project.
- 1.2.6. In-stream works may need permits and approvals from municipal, provincial and/or federal government agencies. It is the duty of the applicant to ensure that these requirements are completed, and provide a copy to the NSWA.
- 1.2.7. The NSWA Executive Director will review all Applications and determine which ones are Eligible Projects to be funded under the VRWREP.

1.3. Approved Projects

- 1.3.1 Only Approved Projects will be funded by the VRWREP.
- 1.3.2 An Approved Project must:
- have an Approval Letter sent by the NSWA Executive Director to the Applicant indicating the specific restoration or enhancement site, its Project Term, the amount of funding awarded, deliverables, and schedule and conditions of payments;
 - comply with the Terms and Conditions sent with the Approval Letter;
 - be completed within the specified Project Term.
- 1.3.3 In completing the Approved Project, the Applicant must:
- comply with all applicable laws and regulations;
 - with the assistance of the NSWA, obtain all required provincial and federal government approvals prior to commencing the Approved Project; and
 - meet all applicable guidelines issued by the municipal, provincial and federal governments.

1.4. Ineligible Projects

- 1.4.1 Ineligible Projects include:
- Creation of a wetland in areas where there was no prior wetland;
 - Creation of wetlands as part of reclamation of a disturbed land;
 - Restoration of wetlands as part of government regulatory or policy mitigation requirement;
 - Creation of riparian areas along man-made channels or drainage channels;

- e) Creation and maintenance of man-made lakes, reservoirs, dug-outs, lagoons, and stormwater management ponds, and creation of their respective riparian areas;
- f) Bank stabilization using non-biodegradable materials such as concrete rip raps, gabions, and similar structural materials;
- g) Bank modifications to build access structures for public use;
- h) Projects already funded wholly by other sources of grants;
- i) Implementation of Beneficial Management Practices (BMPs) on the uplands without an adjacent wetland or riparian areas restoration/enhancement or riparian buffer zone establishment;
- j) Any other project deemed ineligible by the NSW Executive Director, or when referred to and deemed ineligible by the grant funder.

1.5. Eligible Expenses

- 1.5.1 Eligible Expenses are approved by the NSW Executive Director and stated in the Approval Letter, and may include:
 - a) Eligible Costs listed in APPENDIX B
 - b) Annual compensation for the value of land made unavailable for crop production as a result of restoration or enhancement at current market evaluation;
 - c) Cost of land securement or conservation easements;
 - d) Any other expense approved by the NSW Executive Director, or when referred to and deemed eligible by the grant funder;

1.6. Ineligible Expenses

1.6.1 Expenses that are not eligible for reimbursement:

- a) Goods and services tax (GST);
- b) Equipment/machinery exceeding \$5,000 (exceptions include off-stream watering systems up to \$10,000 and will be considered on a case-by-case basis at the discretion of the NSW Executive Director);
- c) Extended warranties on equipment, electronics, or technology purchased;
- d) Leasing costs;
- e) Expenses incurred prior to the date the Application is received. If applicable, the NSW Executive Director will indicate in the Approval Letter a retroactive date.
- f) Expenses incurred outside of the Project Term for an Approved Project;
- g) Expenses incurred when an Approved Project is not completed by the Applicant during the Project Term;
- h) Expenses already funded through any other federal or provincial government grants, programs or projects; and
- i) Any other expense deemed ineligible by the NSW Executive Director, or when referred to and deemed ineligible by the grant funder.

- 1.6.2 Barter and exchange transactions are ineligible. Only expenses incurred in monetary transactions evidenced by receipts are eligible.

Appendix A – Examples of Restoration & Enhancement Practices

Some examples of practices for **wetland** restoration (NOAA, EPA, ACE, FWS, NRCS. 2003):

- Site Preparation
 - Removing non-native or invasive species
 - Removing piles of soil, rocks, debris & trash
 - Amending soil with nutrients or other enhancements
 - Removing polluted soils; bringing in appropriate soils or substrate
 - Plugging or removing drains
 - Managing access of cattle or other herbivores
 - Mowing or burning (consult municipal bylaw) the site to reinstate the natural disturbance regime.
- Construction/ Installation
 - Installing bank/edge stabilization biodegradable structures
 - Grading existing soils
 - Placing & grading new soils
 - Planting plugs, seeds or newly-grown plants
 - Installing plant protections (screens, etc.)
 - Placing temporary irrigation systems
 - Constructing and placing habitat structures
- Maintenance
 - Controlling non-native and/or invasive species, preferably by manual method
 - Managing grazing by cattle and other herbivores
 - Repairing structures
 - Maintaining monitoring & other equipment
 - Replacing plants
 - Mowing, burning (consult municipal bylaw), and/or other activity reinstating or mimicking the natural disturbance regime
 - Reducing/ preventing human intrusion
 - Controlling local pollutants

In some cases, site preparation practices alone (for example, plugging a drain, managing cattle access, removing trash and debris) are all that are needed to allow natural recovery and eventual restoration of a wetland. Where the wetland is lost or natural recovery is unlikely or very slow, active measures such as construction works and planting may be needed.

Some examples of practices for **riparian areas** restoration (Kauffman et al. 1997):

- Site preparation above also works for riparian areas
- Those that limit disturbance
 - Riparian area fencing and management (rotational grazing, control of invasive species, people, pets & recreational vehicles)
 - Bank stabilization using plantings (also live stakes) and/or biodegradable materials (mulch socks, mats, wraps) – bioengineering
 - Portable and/or permanent off-stream watering systems
 - Appropriate low-level stream crossings (less than \$10,000) (permits required) – ensure fish & wildlife passage
 - Planting of native vegetation or permanent cover

- Those that exclude pollutants – sediments, nutrients, etc.
 - Riparian buffer strips; vegetative filter strips; catch crops; cover crops; crop barriers
 - Conservation tillage
 - Improved grazing/ pasture management
 - Grassed waterways
 - Conversion of cropland to forage or natural native vegetation or permanent cover
 - runoff control ponds (or catch basins)

References:

Kauffman et al. 1997. An ecological perspective of riparian and stream restoration in the western United States. *Fisheries* 22:12-24

NOAA, EPA, ACE, FWS, NRCS. 2003. An introduction and user's guide to wetland restoration, creation, and enhancement

Appendix B – Eligible Costs

Costs of the following directly associated with the restoration works:

- * Engineering designs
- * Construction materials
- * Planting and associated materials
- * Equipment costs (example, off-stream watering system. Cost limits may apply)
- * Equipment rentals
- * Fuel
- * Shipping of materials
- * Paid labour at most current AB standard custom rates
- * Landowner labour calculated at \$25.00 per hour
- * Contractor services
- * Technician fee
- * Documentation fee
- * Travel (mileage and meals) expenses at Government of Alberta rates, approved at the discretion of the NSWA Executive Director

Except for landowner labour and equipment, and travel expenses at Government of Alberta rates, expense claims require receipts of payments.