# Alberta Conservation Association 2013/14 Project Summary Report

**Project Name:** Beaverlodge Riparian Conservation

Land Management Program Manager: Darren Dorge

Project Leader: Ed Kolodychuk

**Primary ACA staff on project**:

Melissa Buskas, Ed Kolodychuk, Lenore Stone and Jennifer Straub

## **Partnerships**

ConocoPhillips
County of Grande Prairie
Cows and Fish
Penn West
West County Watershed Society

## **Key Findings**

- Completed two riparian health inventories.
- Completed six short-form riparian health assessments.
- Completed bi-annual water sampling; results showed several parameters exceeded recommended water quality guidelines.
- Local, landowner-driven West County Watershed Society continues to lead the identification of future project sites and activities.

### Introduction

A survey completed in 2002 documented riparian habitat degradation along the Beaverlodge River and two of its tributaries, Beavertail and Steeprock creeks (Hallett 2003). Degraded riparian habitat is primarily attributed to livestock grazing, watering, feedlot operations, vehicle fording, land clearing and instream alterations. Since 2004, Alberta Conservation Association (ACA), in partnership with landowners, provincial and municipal governments, and other conservation groups, has delivered riparian restoration and conservation projects along these watercourses, including streambank fencing, alternative livestock watering systems and tree planting. In 2013/14, ACA continued to develop riparian protection and enhancement projects with landowners, monitor riparian health and water quality, and deliver public outreach activities.

#### Methods

We initially identified project sites using aerial videography completed in 2002. Since then, we have worked in partnership with West County Watershed Society (WCWS) and the County of

Grande Prairie to identify project sites based on landowner willingness. Meetings were then collaboratively planned for riparian enhancement activities with the associated landowner(s).

Cows and Fish conducted riparian health inventories to provide comprehensive measurements of riparian health, and we completed short-form riparian health assessments to provide a quick survey of riparian health at project sites. We conducted water quality sampling at seven sites throughout the drainage as part of a long-term monitoring protocol. Samples were collected once in the spring and then again in the fall; all samples were submitted to Maxxam Analytics for analysis. Also as part of a long-term monitoring protocol, we deployed instream water temperature data loggers in spring at two of the sampling sites and removed them in fall.

### Results

In 2013/14, we completed six short-form riparian health assessments, and Cows and Fish completed two riparian health inventories. Our partners, WCWS and the County of Grande Prairie installed a solar-powered watering system for one landowner. The locations of all riparian activities completed in 2013/14 are shown on Figure 1.

## 2013 Beaverlodge Riparian Conservation Projects

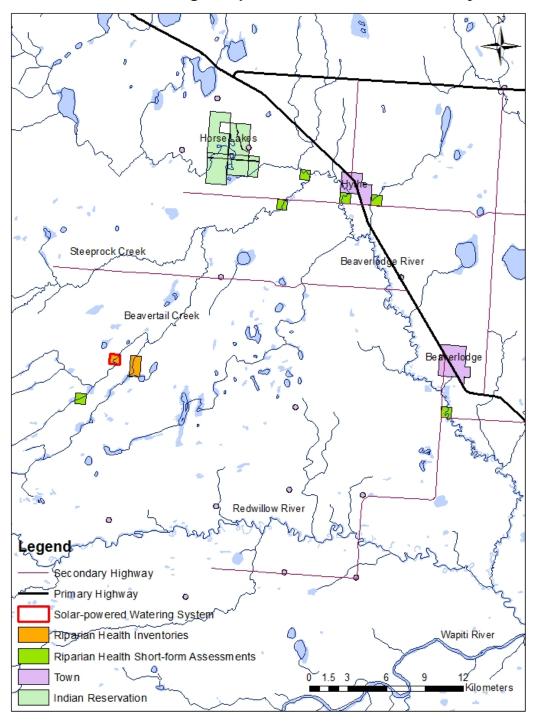


Figure 1. Location of Beaverlodge Riparian Conservation projects in 2013/14.

Similar to previous years, water quality continues to be assessed as poor in the drainage; several parameters exceeded recommended water quality guidelines (Alberta Environment 1999; CCME 2010).

#### Conclusions

Our riparian conservation efforts have contributed to incremental improvements in riparian habitat within the Beaverlodge River drainage and have influenced how landowners steward their lands. As the locally driven WCWS continues to build momentum, it promises to be a driving force in the local community for fostering change and finding additional landowner partners. We will continue to monitor water quality throughout the drainage, monitor riparian health through assessments and inventories, support landowners with riparian enhancement activities, and communicate our program initiatives to the community.

#### **Communications**

- Delivered a presentation and interactive willow-planting event to 60 Beaverlodge Regional High School students. Our partners included Cows and Fish, County of Grande Prairie and WCWS.
- Participated in a tour of project sites that was delivered to the Alberta Woodlot Extension Society by WCWS and County of Grande Prairie.
- Participated in the Redwillow Watershed Restoration Project in conjunction with WCWS and County of Grande Prairie.

### **Literature Cited**

- Alberta Environment. 1999. Surface water quality guidelines for use in Alberta. Edmonton, Alberta, Canada.
- Canadian Council of Ministers of the Environment. 2010. Canadian water quality guidelines for the protection of aquatic life: ammonia. *In:* Canadian water quality guidelines, 1999. Canadian Council of Ministers of the Environment, Winnipeg, Manitoba, Canada.
- Hallett, J. 2003. Summary of the 2002 2003 Beaverlodge land use riparian assessment. Activity Report, Alberta Conservation Association, Peace River, Alberta, Canada.

**Photo Captions** 



Cows and Fish's Kerri O'Shaughnessy delivering a presentation to Beaverlodge Regional High School students. Photo: Melissa Buskas

[Photo1\_Riparian Beaverlodge\_2013-14\_Melissa Buskas.jpg]



Planting willows with Beaverlodge Regional High School students. Photo: Melissa Buskas [Photo2\_Riparian Beaverlodge\_2013-14\_Melissa Buskas.jpg]



Spruce tree planted in 2011 observed in 2013 during a short-form riparian health assessment. Photo: Melissa Buskas

[Photo3\_Riparian Beaverlodge\_2013-14\_Melissa Buskas.jpg]



Riparian habitat before project initiation at the Kitt property. Photo: John Hallett [Photo4\_Riparian Beaverlodge\_2013-14\_John Hallett.jpg]



Riparian habitat at the Kitt property four years after livestock were excluded. Photo: Melissa Buskas

[Photo5\_Riparian Beaverlodge\_2013-14\_Melissa Buskas.jpg]