

Alberta Conservation Association 2011/12 Project Summary Report

Project Name: *Beaverlodge Riparian Conservation*

Fisheries Program Manager: Peter Aku

Project Leader: Brendan Ganton

Primary ACA staff on project:

Brendan Ganton, John Hallett and Jennifer Straub

Partnerships

Alberta Agriculture and Rural Development
ConocoPhillips
County of Grande Prairie
Penn West Energy
Royal Bank of Canada
West County Watershed Group

Key Findings

- Established five riparian tree planting projects with signed Habitat Enhancement Agreements that enhanced more than 4.5 kilometres of stream length and 19.2 hectares (47.4 acres) of riparian habitat.
- Planted a total of 22,000 seedling throughout the drainage.
- Water quality monitoring indicated high levels of phosphorus within drainage.
- Local, landowner-driven West County Watershed Group continues to lead in identifying future project sites and activities.

Introduction

A 2002 survey documented riparian habitat degradation along the Beaverlodge River and two of its tributaries, Beavertail and Steeprock creeks (Hallett 2003). Bank-side livestock feeding and watering, vehicle fording and in-stream alterations have degraded the riparian zones of these watercourses. Since 2004, Alberta Conservation Association (ACA), in partnership with landowners, provincial and municipal government and other conservation organizations, has delivered riparian restoration and conservation projects along these watercourses. To date, a variety of projects including streambank fencing, alternative livestock watering systems and tree planting have been completed. In 2011/12, we continued to develop riparian protection and enhancement projects with landowners, monitor riparian health conditions and conduct public outreach activities.

Methods

We identified potential project sites together with the West County Watershed Group (WCWG), County of Grande Prairie and Alberta Agriculture and Rural Development. We then met with the associated landowners and collaboratively planned riparian enhancement activities. We contracted Cows and Fish to conduct riparian health assessments at existing and new project sites. We conducted water quality sampling at 10 sites throughout the drainage as part of a long-term monitoring protocol. A volunteer biologist with the WCWG collected grab samples in the spring, and ACA biologists revisited these same sites and collected samples in the fall. We submitted all samples to Maxxam Analytics for a suite of chemical and physical testing.

Results

In 2011/12, we and our partners co-ordinated the planting of 22,000 trees at 12 sites, including five new project sites and two on-going project sites. We signed five habitat enhancement agreements with landowners who received trees. In total, these agreements enhanced 19.2 ha (47.4 acres) of riparian habitat along more than 4.5 km of stream length.

As in previous years, phosphate ($\text{PO}_4\text{-P}$) concentrations were above recommended Alberta Environment water quality guidelines. High phosphate concentrations (>1.0 mg/l) occurred at all sampling sites on the Beaverlodge River and Steeprock Creek. Locations with moderately high levels (0.05 – 1.0 mg/l) included Beavertail and Windsor creeks. A sample taken from Redwillow River showed low (<0.1 mg/l) phosphate concentration.

Conclusions

Our riparian conservation efforts are resulting in incremental changes within the watershed and are influencing how landowners steward their lands. As the locally-driven WCWG continues to build momentum, it promises to be a driving force in the local community for fostering change and finding additional landowner partners.

Communications

- Co-led a tour of project sites as part of a 2011 Arctic grayling symposium.
- Delivered a tour of project sites and made a presentation to 25 Grande Prairie high school students and teachers during the “Beaverlodge Watershed Riparian Tour”.
- Presented the Beaverlodge Riparian Program at the Emerald Day Community Dialogue Series in Grande Prairie with Jill Henry (County of Grande Prairie).

Literature Cited

Hallett, J. 2003. Summary of the 2002 – 2003 Beaverlodge land use riparian assessment. Activity Report, Alberta Conservation Association. Peace River, Alberta.

Photos



Exclusion fencing, scheduled for installation in spring 2012, will ensure that this riparian area is protected from grazing cattle. (Photo: John Hallett)



Alberta Conservation Association staff member, John Hallett (top right), joins Jill Henry (County of Grande Prairie, bottom right) and Cathy Newhook (West County Watershed Group, bottom left) at a landowner's (top left) kitchen table to plan a riparian enhancement project. (Photo: Jenny Straub)



A group of high school students from Grande Prairie participate in the Beaverlodge Drainage Riparian Tour as they observe the Toews' riparian enhancements. (Photo: John Hallett)