

**Alberta Conservation Association
2009/10 Project Summary Report**

Project Name: *Bearberry Creek Riparian Conservation Program*

Fisheries Program Manager: Peter Aku

Project Leader: Marco Fontana

Primary ACA staff on project:

Marco Fontana, Kelly Hooey, Tyler Johns, Chad Judd, Cam Stevens and Jon Van Dijk

Partnerships

Alberta Environment
Alberta Sustainable Resource Development
Cows and Fish
Department of Fisheries and Oceans
Mountain View County
Mountain View Gazette
Olds College
Pembina Pipeline Inc.
Penn West Energy
Red Deer River Watershed Alliance
Royal Bank of Canada
Shell Canada
Sundre High School

Key Findings

- Distributed a 'landowner's guide to the program' to local landowners that stimulated participation in the program.
- Established two riparian conservation project agreements with one landowner, including an off-site watering system and riparian fencing.
- Completed three bank stabilization projects using bioengineering that enhanced 4,225 m² of riparian habitat.

Introduction

Bearberry Creek is a tributary to the Red Deer River, west of Sundre that historically supported sport fish, including Bull Trout (Fitzsimmons 2005). Land use practices have degraded riparian and aquatic habitat negatively impacting water quality and fish

populations. Restoring the fisheries of Bearberry Creek may depend, in part, on the health (or condition) of riparian areas. The ultimate goal of our project is to facilitate the re-establishment of a recreational fishery by improving the riparian conditions in the watershed. Building on work initiated in 2005, our objectives for 2009/10 were to develop riparian protection and enhancement projects with landowners, conduct public outreach, and continue implementing monitoring protocols.

Methods

We continued to work with landowners interested in riparian projects and installed bank stabilization projects using bioengineering techniques. We contracted the services of IRIS Environmental Incorporated to design and construct two bioengineering sites for future comparison to previous projects.

We performed outreach through various media, made presentations at local venues and loaned out our off-channel watering system for demonstration purposes. We also continued to pursue a partnership with Trout Unlimited Canada and approached Conoco Phillips to gauge funding interest. An application was submitted to The Department of Fisheries and Oceans' (DFO) Stewardship in Action Initiative.

We contracted Cows and Fish to perform riparian health inventories at three sites, including a control site (NW-21-33-07-W5), a reference site (SE-19-33-07-W5) and a treatment site (NW-17-33-07-W5). We also conducted water quality sampling as part of a long-term monitoring protocol.

Results

We signed two funding agreements with one landowner for the purchase of a portable, solar-powered off-channel watering system and the installation of a riparian fence (Table 1). We also constructed three bank stabilization projects with funding contributions from Pembina Pipelines and in-kind support from Olds College, Shell Canada and Mountain View County. One landowner used our demonstration watering system. Riparian health inventory reports have not been received; therefore results are not yet available.

Table 1. Summary of riparian projects completed in 2009/10.

Id	Legal Location	Type
ACAB09-1	NE-17-33-07-W5	Bioengineering
ACAB09-2	NE-17-33-07-W5	Bioengineering
ACAB09-3	NW-11-33-06-W5	Bioengineering
ACAW09-1	NW-08-33-06-W5	Off-site watering ¹
ACAF09-1	NW-08-33-06-W5	Streambank fencing ¹

¹Agreements signed but systems will not be installed until 2010.

We completed bank stabilization projects at three sites using bioengineering techniques, including a total of 110 m of wattle fencing, 65 modified brush layers, and 4,050 m² of live staking, representing 4,225 m² of enhanced riparian habitat (Table 2).

Table 2. Breakdown of bioengineering treatments at each site completed in 2009/10.

Site ID	Wattle fence (m)	Modified brush layers (#)	Live Staking (m ²)	Total Area (m ²)
ACAB09-1	0	0	150	150
ACAB09-2	20	5	150	175
ACAB09-3	90	60	3,750	3,900

We developed a variety of public outreach communications, including a newspaper article published in the *Mountain View Gazette*, an advertisement and an interview featured on the radio program “Let’s Go Outdoors” with Michael Short. We also produced and distributed, to local landowners, a pamphlet highlighting the benefits of the program, and made a presentation to a local high school Environmental Science class.

Conclusions

In 2009, we built on project work initiated in previous years by signing two new project agreements and constructing three bank stabilization projects with the help of corporate partners. We generated landowner stewardship interest and initiated a quantifiable sampling protocol for long-term monitoring purposes.

Communications

- Published an article in the *Mountain View Gazette*.
- Placed an advertisement soliciting landowner participation in the *Mountain View Gazette*.
- In partnership with our Communications team, we produced and distributed to local landowners a pamphlet highlighting the benefits of the program.
- Project featured on Michael Short's radio program "Let's Go Outdoors".
- Presented project and riparian education to an Environmental Studies class at the Sundre High School.

Literature Cited

Fitzsimmons, K. 2005. A review of fish and fish habitat information from the Bearberry Creek drainage. Alberta Conservation Association. 20 pp + App.

Photos:



New portable, solar-powered, off-site watering system purchased for demonstration by landowners in the Bearberry drainage. (Photo: Kelly Hooey)



Alberta Conservation Association staff, Jon Van Dijk, preparing willow cutting for bioengineering structure on Bearberry Creek. (Photo: Tyler Johns)



Bank stabilization project using bioengineering at site ACAB09-1 located on NE-17-33-07-W5. (Photo: Kelly Hooey)



Bank stabilization project using bioengineering at site ACAB09-3 located on NW-11-33-06-W5. (Photo: Kelly Hooey)