

Alberta Conservation Association 2010/11 Project Summary Report

Project Name: *Lesser Slave Lake/South Heart Riparian Conservation*

Fisheries Program Manager: Peter Aku

Project Leader: John Hallett

Primary ACA staff on project:

John Hallett

Partnerships

Fisheries and Oceans Canada
High Prairie Riparian Action Team
Lesser Slave Lake Watershed Council
Penn West Energy
Royal Bank of Canada

Key Findings

- Completed one riparian fencing project that protected 723 m of stream bank with a signed ACA Habitat Enhancement Agreement.
- Initiated project which will extend over 1,870 m and protect 26 ha (64.5 acres) when it is completed in 2011.
- ACA became a member of the Lesser Slave Lake Watershed Council with ACA staff John Hallett elected as a non-governmental agency representative.
- Aerial videography assessment indicated that, in general, riparian reaches on the Swan River watershed were in good condition (88%); 5% rated as fair and 7% as poor.

Introduction

Riparian areas are a vital component to the health and integrity of watersheds. Healthy functioning riparian areas protect water quality, create wildlife habitat and control erosion. Unfortunately, riparian areas in the Lesser Slave Lake watershed continue to be under pressure due to urban, cottage, agricultural and industrial development. Since 2004, Alberta Conservation Association (ACA) has completed several riparian restoration projects in partnerships with landowners and the High Prairie Riparian Action Team (HPRAT). Despite successes, more on-the-ground riparian conservation projects and education are needed in this watershed to prevent further habitat destruction. Our objectives for 2010 included continuing to work with HPRAT and other stakeholders to protect and restore riparian areas in the Lesser Slave Lake watershed. We also assessed the health and integrity of riparian areas along the Swan River using aerial videography.

Methods

Through attendance at their meetings, we assisted HPRAT in identifying potential riparian restoration project sites.

In partnership with the Lesser Slave Lake Water Council (LSLWC), we used low-level aerial videography to assess the health and integrity of riparian areas along the Swan River and two tributaries (Moosehorn and Inverness rivers). We captured videos during a 2.5-hour helicopter flight on June 17, 2010 and analysed the videos using the ACA Aerial Videography Lotic Riparian Assessment Scorecard. While viewing the videos, a team of two individuals discussed and answered a suite of questions related to the 'riparian management area' integrity and function. We assigned scores to both left and right banks of each river and converted the scores into colour-coded maps that characterized riparian conditions as poor, fair and good.

Results

Overall, we identified three potential project sites in 2010. We commenced riparian fencing on one of these sites (Nichols property) that will extend over 1,870 m and protect 26 ha (64.5 acres) when it is completed in 2011. A second site (Sandquist property) received 723 m of fencing, and the third site (Herban property) is scheduled for fencing by HPRAT in 2011.

In general, reaches assessed on the Upper Swan River in the Green Zone were in good condition (96%), with 1% rated as fair and 3% as poor. Scores were similar for both left and right banks. However, in the Lower Swan River in the agricultural zone only 71% of the reach was rated as good, with 10% fair and 19% poor. Riparian areas along the Moosehorn River rated as 87% good, 12% fair and 1% poor. Scores for the Inverness River rated 97% good, 1% fair and 2% poor. Data collected as part of this project will be used to gain insight into the current state of the watershed. This information will be available to landowners and land managers to raise awareness and discussion regarding what steps should be taken to protect the 'good' areas and to restore the impaired areas.

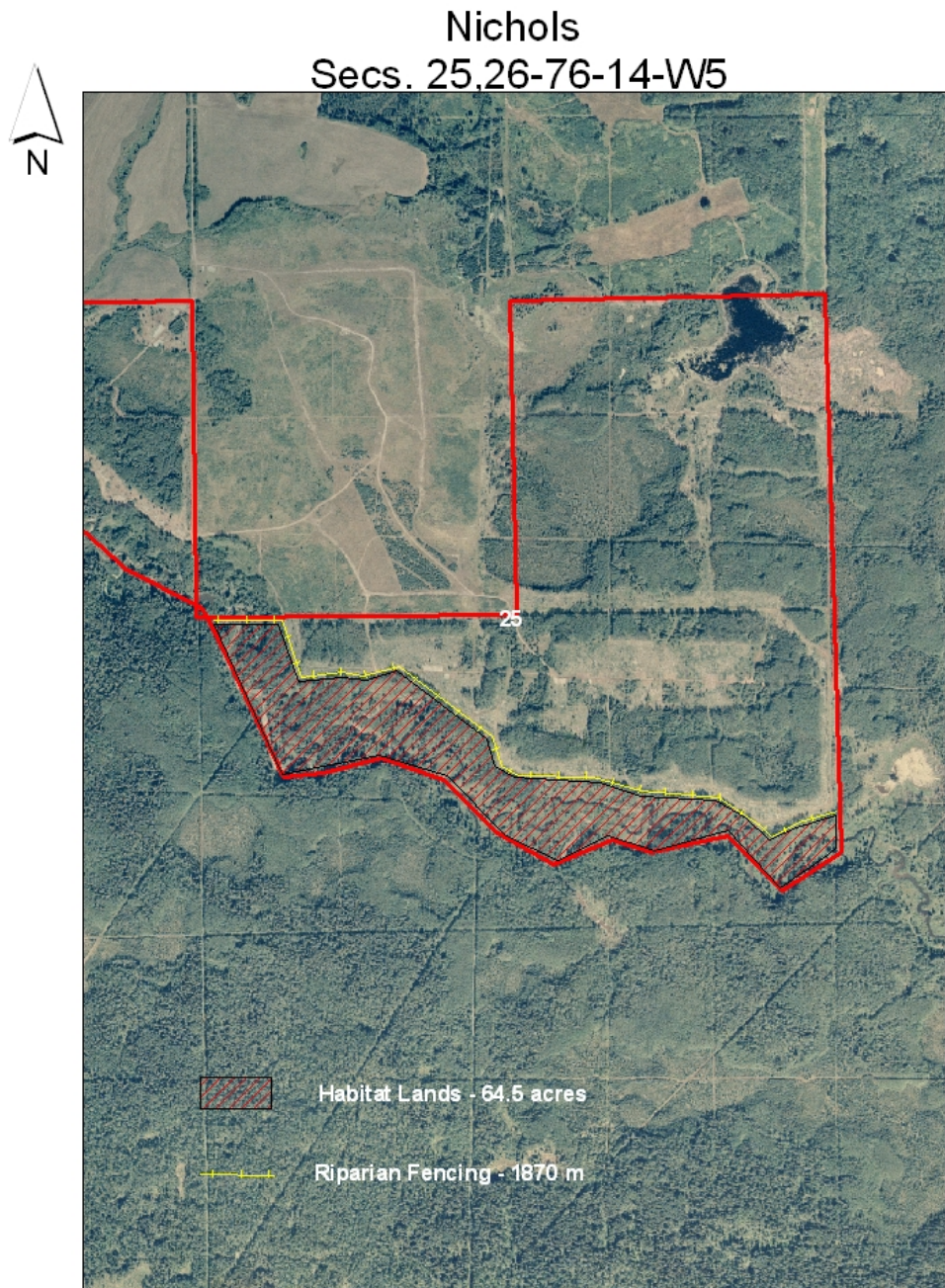
Alberta Conservation Association became a member of the LSLWC to provide input into this organization's planning for the watershed. One of the primary concerns of the LSLWC is maintaining outlet flows from Lesser Slave Lake at a minimum of 5 m³/s through redesign of the outlet control structure. This value represents the minimum flow to enable the release of downstream industrial effluent.

Conclusions

We continued to be actively involved with riparian conservation in the Lesser Slave Lake watershed through partnerships with landowners. We established two new riparian fencing projects, and completed videography in the Swan River Watershed. We also became a member of the LSLWC. Development by industry and landowners continued unabated on the shoreline of Lesser Slave Lake and its tributaries; yet, overall, there appears to be dwindling local interest in riparian restoration efforts.

Communications

- Participated in an open house in High Prairie hosted by HPRAT in the spring of 2010. Our presentation focused on highlighting existing HPRAT projects.
- Attended several monthly meetings as part of our membership on the LSLWC.



Map showing the location of the riparian fencing project undertaken on the Nichols property in 2010.



The location of the riparian fence line on the Nichols property. The fence was built on the left side of the trail. (Photo: John Hallett)



Mr. Nichols and the riparian area on Salt Creek. (Photo: John Hallett)



The Sandquist project riparian fence. (Photo: John Hallett)



The Sanquist project riparian fence and Habitat Lands. (Photo: John Hallett)