Alberta Conservation Association

2022/23 Project Summary Report

Project Name: Habitat Legacy Partnership

Wildlife Program Manager: Doug Manzer

Project Leader: Layne Seward

Primary ACA Staff on Project: Jalen Hulit, Daniel Knop, Doug Manzer, Layne Seward, Mike Uchikura, Samuel Vriend, and Cailyn Wilson

Partnerships

Alberta Environment and Protected Areas
Alberta Fish & Game Association – Zone 1
County of Warner
David Bissett
Irrican Power
Landowners
Lethbridge Fish & Game Association
Magrath Rod and Gun Club
New Dayton Rod and Gun Club
Pheasants Forever – Calgary Chapter
Raymond Agricultural Society
Raymond Irrigation District
Southern Alberta Bowhunters Association
St. Mary River Irrigation District
Taber Irrigation District
Westwind School Division

Key Findings

- To date, we have planted 45,900 shrubs in key areas around Milk River Ridge Reservoir (Ridge Reservoir).
- In 2022, we planted 3,400 shrubs and willows at the north side (Raymond High School Plantings) of the reservoir, where approximately 80 acres of previously farmed and grazed Crown lands were fenced off from agricultural use.
- We undertook annual maintenance on existing enhancements to improve wildlife habitat including weeding, spraying, watering, reseeding, maintaining fences, and mowing (to knock back weeds and enable desirable forbs to flourish).

Abstract

The Habitat Legacy Partnership (HLP) project works with a multitude of stakeholders to improve upland game bird habitat in southern Alberta. The Milk River Ridge Reservoir Water Quality Stewardship Initiative (MRRRWQSI) is part of the HLP and is a multi-year collaborative initiative with a current focus in the County of Warner. The MRRRWQSI is overseen and managed by a working group consisting of Alberta Conservation Association (ACA), Alberta Environment and Protected Areas (EPA), and the County of Warner, whose actions are guided by terms of reference. The initiative consists of nine segments around the Waterton–St. Mary headworks inlet canal and along the shorelands of the Milk River Ridge Reservoir. These segments are predominantly focused on provincial Crown land—known as the "provincial land corridor"— surrounding the reservoir. The overall goal of this initiative is to improve water quality through the restoration of the vegetation community along shorelands and riparian areas. This restoration translates into the creation of vital wildlife habitat that also filters nutrients and reduces erosion. Approximately $2.2 million has been raised and invested to date. Thus far, we have installed 61 km of fencing to protect shoreland and riparian habitat. In all, 25 off-site watering units have been installed in strategic areas surrounding the reservoir to redirect cattle away from fragile riparian zones. We have planted approximately 45,900 shrubs and seeded 456 acres back into perennial wildlife habitat. A large 6.18-acre wetland was developed on the west side of the reservoir, acting as a large filter for nutrients and a magnet for wildlife. During the 2022/23 season, approximately 3,400 more shrub and willows were planted. Partner

meetings are ongoing for potential shrub plantings and permanent cover seeding for the 2023/24 season.

Introduction

In 2008, Alberta Conservation Association (ACA) and Pheasants Forever (PF) formed a partnership called the Habitat Legacy Partnership (HLP) aimed at improving pheasant habitat in southern Alberta. As part of this partnership, ACA and PF have identified focal landscapes. To initiate habitat work, ACA biologists meet with landowners and land managers within the targeted landscapes to develop and implement habitat plans. The long-term goals of this project are to 1) increase pheasant populations through habitat enhancement and 2) to increase hunter access and hunter satisfaction within discrete areas of southern Alberta. Under the umbrellas of HLP, the Milk River Ridge Reservoir Water Quality Stewardship Initiative (MRRRWQSI) has been the main focus in recent years. This multi-year collaboration initiative is in the County of Warner. The MRRRWQSI is overseen and managed by a working group consisting of ACA, Alberta Environment and Protected Areas (EPA), and the County of Warner, whose actions are guided by terms of reference. The initiative consists of nine segments around the Waterton–St. Mary headworks inlet canal and along the shorelands of the Milk River Ridge Reservoir (Ridge Reservoir). These projects are predominantly focused on provincial Crown land—known as the "provincial land corridor"—surrounding the reservoir. The overall goal of this initiative is the improvement of water quality through the restoration of the vegetation community along shorelands and riparian areas. Water quality declines in Ridge Reservoir in previous years are attributed in part to a degradation of the provincial land corridor that surrounds the reservoir and the inlet canal. By returning ecological function to compromised corridor lands, they will serve again as environmental buffers to intercept and slow runoff into Milk River Ridge Reservoir, and better anchor riparian areas and shorelands with desired vegetation communities. Approximately $2.2 million has been raised and invested in the MRRRWQSI to date.

Methods

We recognize the benefit of improved water quality for humans, livestock, and wildlife in the area. Techniques used to filter out nutrients and reduce erosion also provide key resources for a broad variety of wildlife, invertebrates, amphibians, and fish in this system. By establishing

wetlands and perennial cover, and planting shrubs, we are providing wildlife with many of the food, shelter, and security necessities essential during critical life stages. Reclaimed habitat around the reservoirs and canals also improves connectivity and travel corridors, enabling species to move among essential habitat areas. This expands the usable range and dispersal of populations and helps moderate extremes in population cycles. The development of habitat and connectivity along reservoirs and canals is primarily occurring on Crown land, which also provides hunters with additional opportunities.

Results

To date, 61 km of fencing has been installed to delineate the corridor boundary and reduce impacts on sensitive riparian zones, which completes the fencing around the entire system. In all, 25 off-site water units have been installed to change the distribution of cattle and further reduce their impact on wildlife habitat and riparian areas. An additional eight waterers are yet to be installed. We have planted 45,900 shrubs to date and have also reseeded 456 acres into perennial wildlife habitat around the reservoir. A large wetland was developed on public land at the west end of the reservoir (6.18 acres); we plan to create three smaller wetlands, which would add another seven acres. We installed a large experimental phosphorus filter at a major source point flowing into the reservoir to reduce nutrient loading. Each year, approximately 60 high school kids from Raymond assist with the shrub plantings. As part of the day, the students attend a presentation about the project and the ecological functions of the enhancements that are taking place around the reservoir. Last year, approximately 100 grade 5/6 students from Raymond School participated in a shoreline cleanup, where they collected 16 bags of garbage and learned about the ecological functions of wetland and riparian areas. Annually, we invest roughly $10,000 in maintenance of habitat plantings, which includes spraying, mowing, reseeding, and discing to promote growth as well as to control noxious and invasive weeds.

The combination of perimeter fencing, shelterbelt, and permanent cover plantings has improved the number of species using this area, many of which are game species pursued by hunters. Approximately 56 linear kilometres of foot access around the reservoir and canal is open for the public to utilize for hunting and fishing.

Conclusions

The MRRRWQSI is an example of what can be accomplished when partners find common ground and work together toward a collective goal. We will continue to work with our partners to complete the objectives of this initiative, as we have already seen how these efforts led to additional opportunities to improve wildlife habitat in other counties. The benefits of this initiative to water quality, wildlife, recreational, and local users is profound. Under the umbrella of the HLP, we will continue to look for opportunities to work with landowners, counties, conservation groups, and industry to find opportunities to create wildlife habitat and increase hunter access.

Communications

- Attended numerous partner group meetings to provide updates on the project and to discuss habitat enhancements and partnership opportunities.
- Presented to approximately 60 high school students and 100 junior high school students on the ecological functions of the enhancements including wetlands and riparian areas.
- Provided information and photos for PF – Calgary Chapter's newsletter.

Literature Cited

Not applicable

Photos

Photo 1. Students of Raymond High School that have helped plants shrubs this past year along the reservoir corridor. Photo: Layne Seward

Photo 2. ACA biologist, Mike Uchikura, giving a presentation to Raymond Junior High School Students about Riparian Habitat functions as part of the students shoreline cleanup day. Photo: Layne Seward

Photo 3. Drone Imagery of the Raymond High School Shrub plantings on the northside of Ridge Reservoir. Photo: Jeff Forsyth

Photo 4. Drone imagery of the perimeter fencing and permanent cover seeding that delineates the provincial boundary around the reservoir. Photo: Jeff Forsyth