

**Alberta Conservation Association
2020/21 Project Summary Report**

Project Name: Ridge Reservoir Habitat Project

Wildlife Program Manager: Doug Manzer

Project Leader: Layne Seward

Primary ACA staff on project: Kelsey Cartwright, Jalen Hulit, Daniel Knop, Doug Manzer, Layne Seward, Mike Uchikura, and Samuel Vriend.

Partnerships

Alberta Environment and Parks

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

Raymond Irrigation District

Southern Alberta Bowhunters Association

St. Mary River Irrigation District

Taber Irrigation District

Key Findings

- To date we have planted 35,500 shrubs in key areas around Ridge Reservoir. In 2020 we replaced 2,500 of those that died off over the past few years, with the goal to establish long-term escape cover and winter habitat for pheasants, grey partridge, and other wildlife species.
- We undertook annual maintenance on existing enhancements to improve wildlife habitat including weeding, spraying, watering, as well as mowing to knock back weeds and enable desirable forbs to flourish.
- Approximately 250 acres of shoreline corridor on the east end of the reservoir is in the process of being fenced off from livestock access. Shrub plantings and permanent cover plans have been made for this area, to be implemented spring 2021.

Abstract

The Milk River Ridge Reservoir Water Quality Stewardship Initiative is a multi-year collaborative initiative in the County of Warner. The stewardship initiative is overseen and managed by a working group consisting of AEP, ACA, 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”—that surrounds 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. 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 51 km of fencing to protect shoreland and riparian habitat. Twenty-five 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 35,500 shrubs and seeded 386 acres back into perennial wildlife habitat. A large 6.18-acre wetland was developed on the west end of the reservoir, acting as a huge filter for nutrients as well as a magnet for wildlife. Approximately 250 acres of corridor lands on the east end of the reservoir has been officially surveyed and is ready for fencing, shrub plantings, and permanent cover seeding in the spring of 2021.

Introduction

The Milk River Ridge Reservoir Water Quality Stewardship Initiative (MRRRWQSI) is a multi-year collaborative initiative in the County of Warner. The stewardship initiative is overseen and managed by a working group consisting of Alberta Environment and Parks (AEP), Alberta Conservation Association (ACA), 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 projects are predominantly focused on provincial Crown land—known as the “provincial land corridor” that surrounds 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 which 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, 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, 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, 51 km of fencing has been installed to delineate the corridor boundary and reduce impacts on sensitive riparian zones. There is an additional 10 km of fencing remaining to be installed. Twenty-five off-site water units have been installed to change the movement 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 35,500 shrubs to date and have also reseeded 386 acres into perennial wildlife habitat around the reservoir, with plans to do an additional 200 acres. A large wetland was developed on public land at the west end of the reservoir (6.18 acres), and we have plans to create three smaller wetlands, adding 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 we also invest roughly \$10,000 in maintenance of habitat plantings which includes spraying, mowing, and disking to promote growth as well as to control noxious and invasive weeds.

Conclusions

The Milk River Ridge Reservoir Water Quality Stewardship Initiative is an example of what can be accomplished when partners find common ground and work together towards a collective goal. We will continue to work with our partners to complete the objectives of this initiative, and already see how these efforts have 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.

Communications

- Attended numerous partner group meetings to provide updates on the project and to discuss habitat enhancements and partnership opportunities.
- Hosted a tour for Calgary Pheasants Forever to discuss funding opportunities for enhancements on the east end of the reservoir.
- Provided assistance in writing the MRRRWQSI Annual Summary.
- Provided information and photos for Calgary Pheasant Forever's newsletter.

Literature Cited

Not applicable

Photos



4-H members releasing pheasants at West Ridge. Photo: Samuel Vriend



Mike Uchikura from ACA teaching 4-H members about the importance of West Ridge, pheasants, and hunting in Alberta. Photo: Samuel Vriend



Panorama view of wetland at West Ridge. Photo: Samuel Vriend



West Ridge winter habitat-pasture contrast. Photo: Samuel Vriend



West Ridge signage and winter habitat. Photo: Samuel Vriend



West Ridge winter cover. Photo: Samuel Vriend



Healthy shrub rows planted around Ridge Reservoir. Photo: Samuel Vriend



Healthy shrub row close-up. Photo: Samuel Vriend