

**Alberta Conservation Association
2019/20 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, Colten Gurr, Jalen Hult, 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

- We planted 3,000 shrubs to create escape cover and winter habitat for pheasants, grey partridge, and other wildlife species.
- Haying was completed at the enhancement sites along the west end of the reservoir to reduce litter load and fire hazard.
- Students from Raymond High School visited the reservoir to help plant shrubs and lay fabric mulch over the newly planted shrubs.
- We continued annual maintenance on existing habitat enhancements, including weeding, spraying, watering, and mowing.

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 Alberta Environment and Parks, ACA, and the County of Warner. 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’ve installed 45 km of fencing to protect shoreland and riparian habitat. Twenty-five offsite water units have been installed to move cattle away from fragile riparian zones. We have planted approximately 33,000 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 22 acres was hayed on the west end of the reservoir in 2019 to reduce litter load and decrease fire hazard.

Introduction

The Milk River Ridge Reservoir Water Quality Stewardship Initiative (MRRWQSI) 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, 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 shore lands 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 as environmental buffers to intercept and slow runoff into Milk River Ridge, and better anchor riparian areas and shore lands with desired vegetation communities. Approximately \$2.2 million has been raised and invested in the MRRWQSI 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 reservoirs and canals also improves connectivity and travel corridors, enabling species to move between 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, 45 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 offsite 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 33,000 shrubs to date, with another 2,000 to be planted in spring 2020. We 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 discing to promote growth as well as to control noxious and invasive weeds. Approximately 22 acres at the west end of the reservoir was strategically swathed and baled to reduce litter load and decrease the fire hazard, while still providing optimal wildlife habitat.

Conclusions

The MRRWQSI is an example of what can be accomplished when partners find common ground and work together towards a collective goal. ACA 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 domestic users is profound.

Communications

- Attended numerous partner group meetings to provide updates on the project and discuss habitat enhancements and partnership opportunities.
- Hosted a partnership field tour this summer to review the work that has been completed and plan the next phases of the project.
- Provided assistance in writing an article highlighting the project that was published in the Fall/Winter issue of *Conservation Magazine*.

- Assisted Alberta Fish & Game Association with a video production highlighting the accomplishments of the project.

Literature Cited

N/A

Photos



Aerial view of the 6.18-acre wetland and habitat at the west end of Ridge Reservoir in 2018.

Photo: Mike Uchikura



ACA staff, Aiden Bateman, Eryk Calkins, and Jalen Hult, laying fabric mulch on newly planted shrubs; mulch is laid to increase moisture retention and reduce weed competition.

Photo: Mike Uchikura



ACA staff member, Aiden Bateman, discing between shrub rows to eliminate weed competition on site. Photo: Jalen Hulit



ACA staff member, Jalen Hult, inspecting shrub plantings at North Ridge. Photo: Samuel Vriend



Shrub rows planted and maintained at North Ridge. Photo: Samuel Vriend



Ferruginous hawk hunting on habitat. Photo: Samuel Vriend



Mike Uchikura looking over habitat enhancements at West Ridge. Photo: Samuel Vriend



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