

Alberta Conservation Association
2023/24 Project Summary Report

Project Name: Connectivity Project

Wildlife Program Manager: Doug Manzer

Project Leader: Layne Seward

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Partnerships

Alberta Fish & Game Association (Zone 1)

Canadian Agricultural Partnership

Government of Alberta

Lethbridge Fish & Game Association

Pheasants Forever

Southern Alberta Bowhunters Association

St. Mary River Irrigation District

Taber Irrigation District

Key Findings

- This was our sixth year working with the St. Mary River Irrigation District to develop comprehensive habitat conservation strategies designed to improve wildlife habitat and water quality across 21 reservoirs and 10,000 acres. After the third field season, we have completed assessments on all 21 reservoirs.
- We completed vegetation assessments and wildlife surveys on the lands surrounding three reservoirs and eight parcels of land in 2023, including Taber Lake, Horsefly Lake, and Fincastle Reservoir.

- We observed 60 unique wildlife species and recorded 946 incidental wildlife encounters in the 2023 field season, 22% of which are classified as species at risk at the provincial or federal level.
- We collaborated with leaseholders to implement recommended Animal Unit Month reductions to prevent overgrazing and re-establish functional habitat connectivity on St. Mary River Irrigation District lands from the previous field seasons.
- Working with St. Mary River Irrigation District staff and Pheasants Forever, we continued habitat maintenance which included spraying, mowing, and watering shrubs.
- We worked with the St. Mary River Irrigation District to seed 100 acres back to native prairie grass and an additional 40 acres back to a wildlife friendly permanent cover mix.
- We planted approximately 1,000 willows in the riparian area, along a sensitive drainage system feeding into Chin Reservoir.

Details

The Connectivity Project addresses habitat fragmentation in southern Alberta by working collaboratively with irrigation districts, municipalities, conservation groups, recreationists, and agricultural producers to improve water quality and re-establish and enhance wildlife habitat. In 2023/24, we completed the sixth year of the project and the fifth year of extensive data collection around three St. Mary River Irrigation District (SMRID) reservoirs (Taber Lake, Horsefly Lake, and Fincastle Reservoir), along with eight additional parcels of land that were not associated with reservoirs. We completed one lotic visual riparian health assessment, four lentic riparian health assessments, 18 lentic visual riparian assessments, 18 range health assessments, and 41 visual range assessments. We also had 946 incidental wildlife observations across the three reservoirs, 22% of which were species at risk. These assessments are a baseline of the plant and wildlife communities for these areas and were used to develop a detailed Habitat Conservation Strategy (HCS).

We used the HCS to identify priority sites where habitat enhancements and/or grazing management recommendations can be implemented to improve ecosystem function (carbon sequestration, water filtration and nutrient retention, wildlife habitat, and biodiversity). The hydrogeomorphology of these reservoirs pose ecological and physical challenges to these

ecosystem service provisions, often developing vegetation communities that differ from more natural systems. To help mitigate these challenges, we provide recommended actions to apply in an adaptive framework over time to improve ecosystem function for water quality as well as wildlife.

Working with multiple partner groups, we continued maintenance on existing habitat enhancements which included spraying, mowing, and watering shrubs. We reseeded 140 acres back to perennial habitat, installed 1.6 kilometres of fencing, and planted roughly 1,000 willow stakes to create shrub habitat that benefits both wildlife and water quality.

Habitat refugia becomes more functional for wildlife as connection improves across the entire region. This work with SMRID and other partners improves habitat quality at high-value riparian sites across the landscape and, with year-over-year attention, will improve wildlife connectivity for many species across the region.

Photos



Photo 1. Wildlife biologist Mike Uchikura conducting a riparian health assessment on SMRID lands near Horsefly Lake. Photo: Dayce Rhodes



Photo 2. Wildlife surveys overlooking badland habitat on SMRID lands. Photo: Dayce Rhodes



Photo 3. Rangeland surveys on SMRID lands around Fincastle Lake. Photo: Dayce Rhodes



Photo 4. Prairie rattlesnake observed on SMRID lands near 40 Mile Reservoir. Photo: Easton Fritz



Photo 5. Northern leopard frog observed in a wetland on SMRID lands. Photo: Easton Fritz



Photo 6. Planting willow stakes to create vertical shrub structure on SMRID lands around Fincastle Lake. Photo: Layne Seward