

Species at Risk Conservation Plan
Prepared for OGC Cooperator
2016



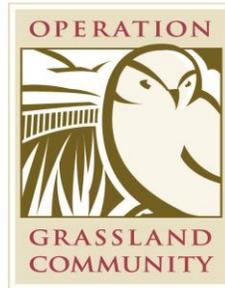
Species at Risk Conservation Plans (SARC Plans) are developed and delivered by MULTISAR, a multi-partner organization and Operation Grassland Community (OGC), a program of the Alberta Fish & Game Association. Each plan is customized for you the landholder and is designed to identify the important wildlife habitat features on your land and provide you with suggestions to improve them. These recommendations are developed strictly for wildlife purposes, and do not make any inferences about range condition and range health. Please consult with an agrologist for range management questions or concerns you may have. A list of potential contacts is provided in appendix. Please keep in mind that this SARC Plan is a "living document" that may be subject to revision as habitat condition changes and an approved subsequent visit warrants.

This report will focus on four species at risk that OGC has targeted for conservation; **Ferruginous hawk, Burrowing Owl, Sprague's pipit and Loggerhead Shrike.**

In addition to this report, your binder includes a removable summary map of your land with our main recommendations, additional information about species at risk and their associated best management practices (BMPs), answers to frequently asked questions, a list of funding sources and other stewardship program opportunities, and a brochure that we encourage you to give to a neighbour.

We hope that you find this report valuable in improving your wildlife habitat.

The OGC Team
www.grasslandcommunity.org



In May 2016, OGC conducted a habitat assessment on your land near Brooks, Alberta, specifically,

All or portions of the following legal land descriptions: [insert land locations here.]

Total Acres: Approx. 4160 acres

From meeting with you and seeing your land we have learned the following about your operation:

- The property consists primarily of grassland, several coulee draws leading to and including the main stem of [Waterbody],
- Native grassland is found within the majority of your property.
- You are knowledgeable about the wildlife capability of the property and would like to do your part in order to improve habitat for species at risk and other wildlife without negatively affecting yourselves financially.

The ranch is located within the Grassland Natural Region, in the Dry Mixedgrass Subregion (Figure 1). Native prairies and cultivated croplands on vast plains, grassy foothills, warm dry summers and cool, dry winters define the Grassland Natural Region. More information on Natural Regions and Subregions can be found on the Internet at www.albertaparks.ca.

The Dry Mixedgrass Natural Subregion is a broad, fertile band of intensively cultivated prairie in south-central Alberta. Slightly lower precipitation than the Mixedgrass Natural Subregion to the west has allowed intensive cultivation over most of the area but has also resulted in retention of native grasslands where topography and soil type is not conducive to cultivation (Figure 2).

One of the key habitat features of the [Waterbody] coulee, is one of several drainages that originate to the north and northeast and dissect the grasslands into distinct drainage areas that flow south to the Red Deer River valley (Figure 3). Since many of the bench lands above the coulees are used for cultivation and hay land, the native prairie and [Waterbody] drainage part of your ranch represent a unique and very productive area for wildlife. Native prairie is essential for survival of most wildlife species in the area. Native prairie that remains unaltered provides habitat for species at risk, including nesting, cover, foraging, and breeding habitats. The decline of many species at risk can be attributed to the loss, fragmentation and degradation of native prairie.

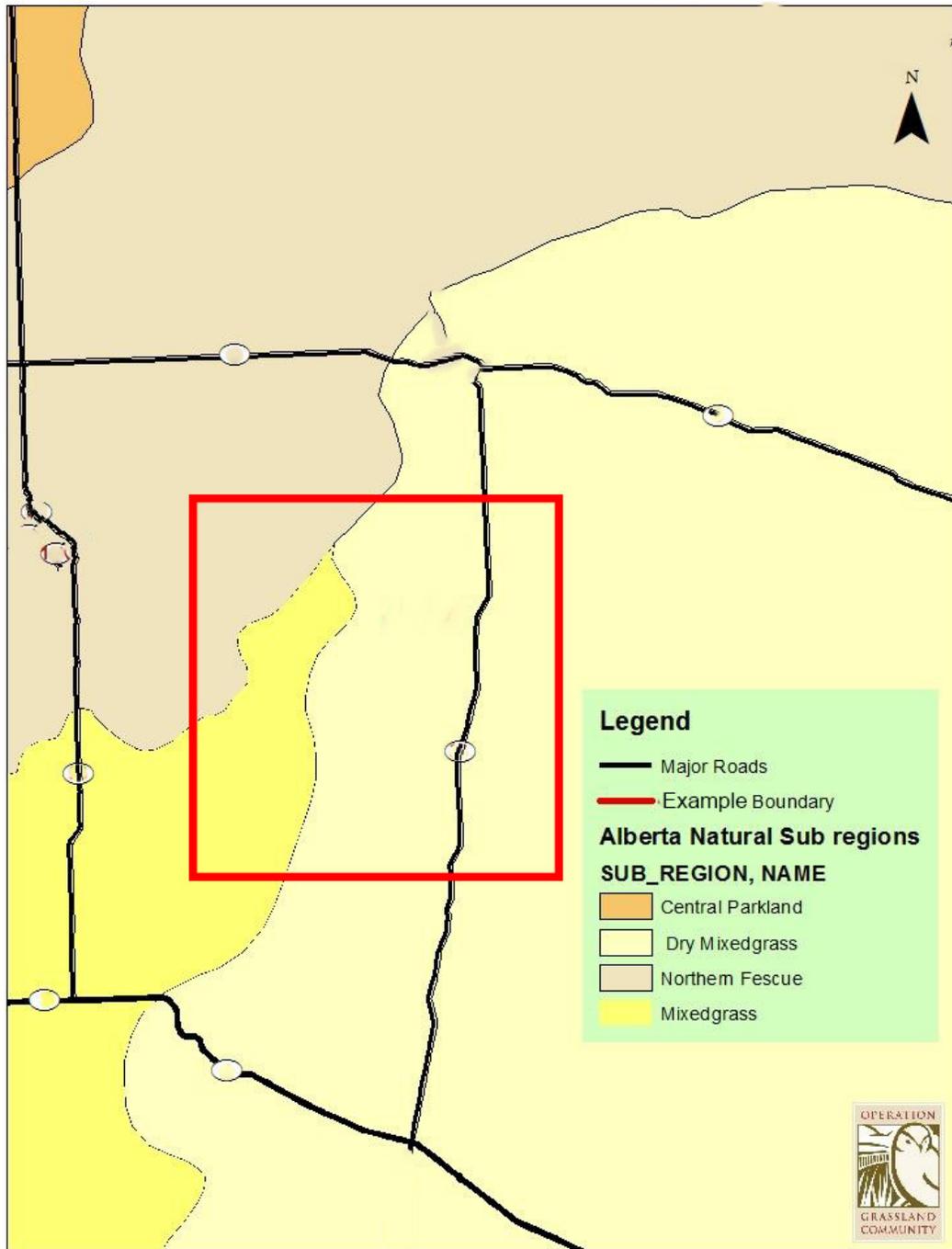


Figure 1. Cooperator Ranch

Figure 1. OGC cooperator Ranch location and associated Natural Sub regions

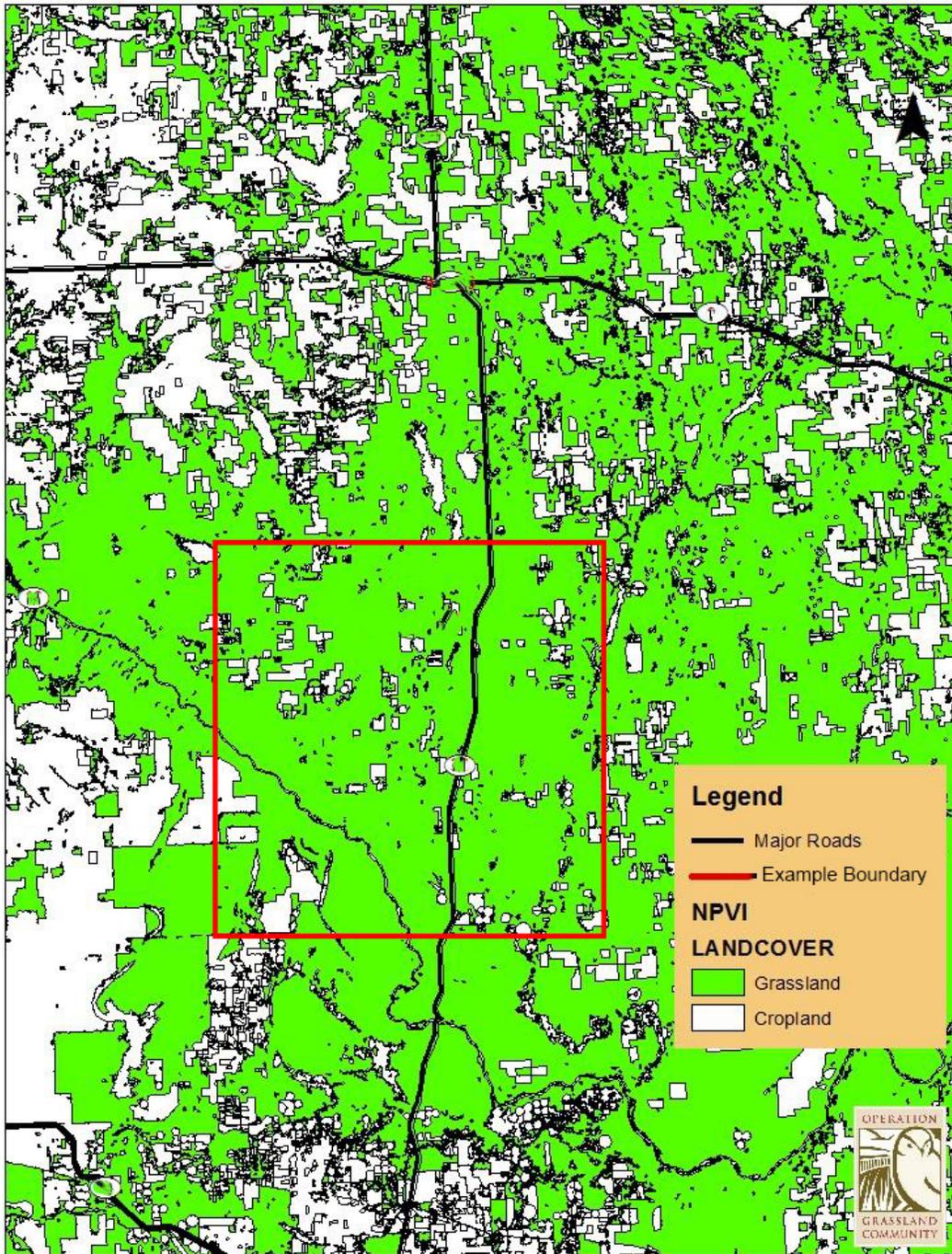


Figure 2 Example Ranch

Figure 2. Grassland and Cropland and the OGC cooperator ranch

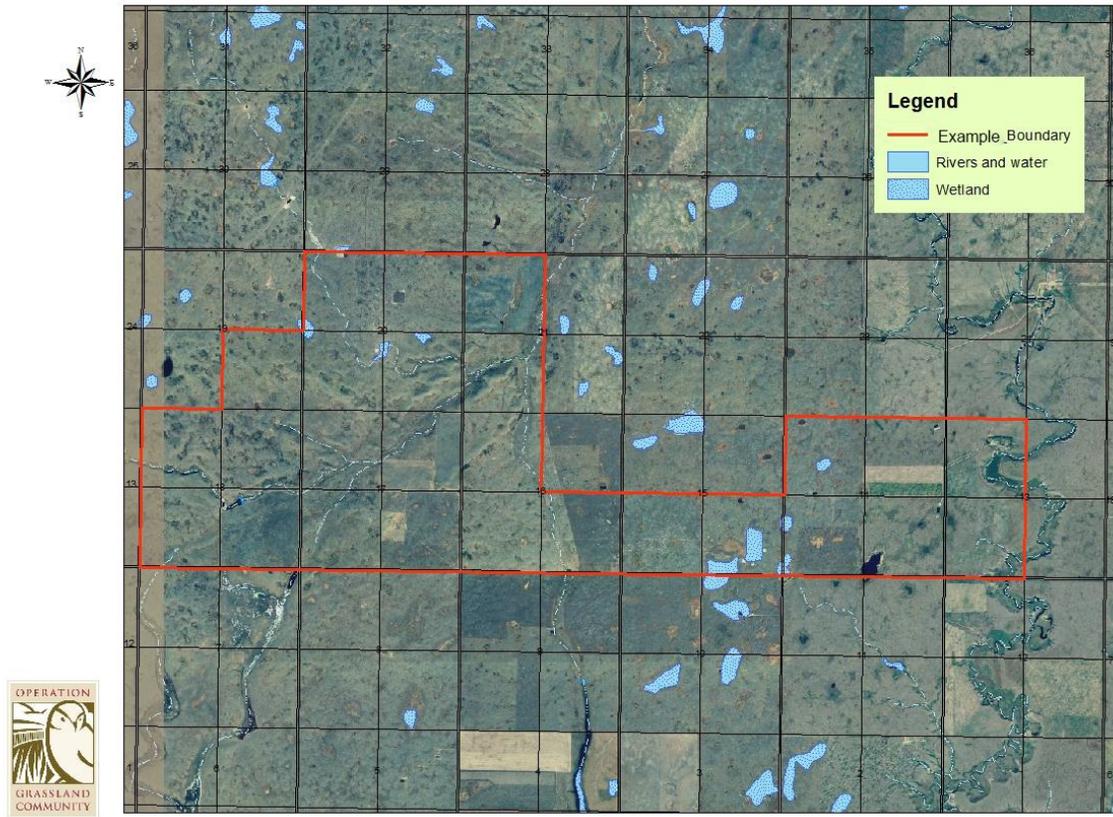


Figure 3. OGC cooperater Ranch aerial photo view of surrounding native and tame grassland, coulee, wetlands, streams and cultivated land (2006)



*Photo 1. Typical grassland and terrain adjacent to the [Waterbody] Creek. **Loggerhead shrike** observations have been recorded in these draws and along the Creek.*

Several permanent and ephemeral streams contained within shallow to moderate drainages are found throughout the central part of the ranch. Low lying shrubs including rose and snowberry are important habitat features that are prevalent within the draws that intersect with the main coulee.

These shrubby areas provide cover for a variety of wildlife, including mule deer and sharp-tailed grouse. These grouse rely on low lying shrub cover near their leks (dancing grounds) for nesting and also for thermal cover and food during the winter. There are several known leks in the general area. Some songbirds will also use these shrubby areas for nesting habitat.

The grassland itself has the structure that contributes to quality wildlife habitat, as it contains tall, medium, and short layers of grass. The grassland appears patchy, with some areas of higher grazing pressure and other areas with little to no grazing pressure. This patchy grassland pattern is important for a variety of wildlife. Grassland birds for example will nest in taller and less grazed areas while foraging in heavier grazed and shorter grass areas. Prey species like shrews, mice, and voles will also be plentiful in the taller vegetation and will be predated upon by raptors and other carnivores when they are in the areas of shorter grass vegetation. Sharptailed grouse have been reported and observed by you and OGC during the field assessment and Fish and Wildlife observation reports have observed sharp tailed grouse.



*Photo 2. Northeast view from the road on south of Section ##. Natural and cultivated shrubs, like willow and carragana can provide nesting and perching sites for **Loggerhead Shrike**. Larger trees may provide nest sites for **Ferruginous Hawk***

Creeks and flowing springs aid in distributing grazing pressure throughout the pastures, as cattle will water at several of these sites. Several watering locations and drainages showed increased use by cattle in the form of trailing which is typical at watering sites. Maintaining the integrity of all water sources is important and they should be monitored for signs of degradation (shore and water quality) from overuse. Eroded areas and bare soil often lead to the establishment of unwanted weedy species. Erosion also decreased the quality of water, which can lead to limited weight gains in cattle. It is shown that a clean water source may help with increase weight gains in cattle. Another issue associated with cattle lingering around water sources is that much of their excrement eventually ends up in the water, which has obvious implications on water quality and wildlife habitat quality. Clean water is also crucial for wildlife including birds and ungulates but especially those tied to wetlands like amphibians.



*Photo 3. Seasonal wetland habitat provides excellent breeding habitat for a variety of species including **water birds and waterfowl** but also provides excellent forage for livestock after they 'dry down' in late July and into August.*

Several things can be done to decrease cattle impacts to all of your drainages and watering sites. Salting away from these areas will help draw cattle out and reduce lingering, and has limited direct cost associated with it. It is shown that cattle will often linger around salting locations, especially where cover is present. Placing salt on the east side of a hill may attract cattle more readily because the area will also be somewhat protected from the westerly winds. Other options would be to install an offsite watering system to draw cattle away from the drainages or to fence portions of the creek off from cattle access. However, we understand that these options can sometimes be cost prohibitive. Ultimately, reducing access to the drainages will help protect the water sources, leading to decreased erosion, cleaner water, and the protection of a productive shrub community.

OGC recommends that native pastures be grazed in the summer to winter for several reasons. Spring is an important nesting and brood rearing time for grassland birds, sharp-tail grouse and other species of wildlife. Limiting cattle in these pastures during this time reduces disturbance to the birds, including nest trampling. This also gives your native grasses ample time to grow and cure, thus providing an excellent food source for cattle and other wildlife during the late summer to winter months. As you probably know, native grass retains a considerable amount of nutritive value after maturity, which makes it ideal winter forage.

These riparian areas will be used by amphibians, waterfowl, and shorebirds in the spring and summer as breeding and nesting areas, and rely on standing vegetation for escape and nesting cover. OGC recommends leaving a vegetative buffer standing around these as this provides cover for wildlife in the early stages of spring next year.

Most of the ranch falls within designated critical wintering habitat for both mule and pronghorn. One key feature of this habitat is slopes that remain windblown for most of the winter, providing easy access to forage by ungulate species, while the nearby shrub cover and coulee topography provide excellent thermal cover. Because it is only a short distance from thermal cover to an available food source, there is a minimal amount of energy expended which increases ungulate survival rates during these harsh months. This elevated use of grazing by native ungulates on wintering sites is also beneficial to other wildlife in the spring and early summer of the following year. Ungulate grazing creates areas of high, medium, and low grazing pressure and creates a patchy vegetative landscape which is important for many species as discussed earlier.

Salt and cattle oiler distribution are important tools that can also be used to distribute grazing pressure throughout a pasture. Moving salt locations yearly may encourage cattle to move to areas within the pasture that they necessarily may not have grazed. Moving salt locations from year to year aids in distributing cattle around the pastures and lessens the cumulative impacts at salt locations resulting from successive years of use. Salting areas should be monitored regularly for the presence of weeds.

Around the homestead is a shelterbelt consisting large trees. Songbirds, upland game birds, raptors, ungulates, and rodents all benefit from abandoned homesteads and shelterbelts at some point during the year. They will be used for nesting, foraging, and for escape from the elements and predators.

Beneficial Management Practices (BMPs) Recommended for the OGC cooperator Ranch

Table 1. Recommendations for Burrowing Owl

BMP Recommendations	Methods	Benefits to Burrowing Owl	Benefits to Your Operation
Maintain open grassland pastures	Avoid cultivating native prairie.	Provides suitable nesting and foraging habitat.	Sustainable, long-term forage.
	Re-seed tame pastures or cropland to natural grassland; consider using native mixes recommended for your soil type.		
	Avoid planting trees/shrubs on native prairie.	Reduces places for predators (hawks, owls, and skunks, coyotes) to live and hunt Burrowing Owls.	
	Remove man-made structures (unused buildings etc.)		
Maintain natural burrows	Maintain healthy populations of badgers and Richardson’s ground squirrels (gophers) near active Burrowing Owl nests at levels that are sustainable with the economic activities on your lands.	Provides nesting burrows for owls. Ground squirrels provide potential burrowing owl predators with an alternate prey source.	Ecologically sustainable operation: providing suitable habitat for cornerstone species (badgers and ground squirrels), allowing Burrowing Owls to flourish on your land over the long-term.
	If ground squirrel control is necessary, consider mechanical (i.e., shooting, trapping) or apply control measures directly into burrows between October and March.	Minimizes collateral loss of non-target species, including Burrowing Owl.	
Promote habitat patchiness in grasslands	Use salt blocks, cattle oilers, water systems etc. to lead your cattle to strategically graze your pastures. Allow cattle to intensively graze to create areas of short (<10 cm) near active burrows grass, and small patches of short grass throughout the pasture.	Short grass around burrows allows owls to see predators approaching and hunt insects near burrows. Patches of short grass throughout pasture helps owls see and catch prey.	Salt blocks and cattle oilers improve cattle health and well being.
	Use stocking rates and vegetation usage appropriate for your soil type.	Provides conditions necessary for a stable prey base for owls.	Healthier range, sustainable forage.
	Fence off water bodies and install off-site watering systems to create areas of taller, thicker grass.	Areas of taller grass provide habitat for prey species (mice, voles, and insects).	Safe and clean water to cattle; improves cattle health.

Table 2. Recommendations for Sprague’s pipit

BMP Recommendations	Methods	Benefits to Sprague’s Pipit	Benefits to Your Operation
Retain large areas of open, native prairie	Maintain native pastures of > ¼ section (65 ha) in size, preferably in close proximity to other native pastures.	Provides highest quality nesting and foraging habitat.	A more sustainable operation; greater native forage yield over the long-term.
	Minimize land use activities that contribute to the fragmenting of large blocks of native prairie.		
	Do not plant trees or shrubs on or within 100m of native or tame grassland. Consider mechanical (burning, mowing, grazing) means to reduce or remove woody vegetation.	They avoid nesting near trees, shrubs, roads and possibly pipelines.	
		Trees/shrubs may attract predators and competitors and negatively affect other native grassland species.	
Improve range health of your pastures	Graze your pastures at appropriate levels to your soil type.	Healthy range provides suitable ground nesting cover for pipits.	A more sustainable operation; greater native forage yield over the long-term.
	Use salt blocks, water sources, cross- fencing to control cattle distribution and avoid long-term intensive grazing.		Can have a positive effect on cattle health.
	Deferred-rotation grazing or complementary grazing system can be used. Graze tame pastures first during early spring.		Rotational grazing systems to allow pastures to be rested for either an entire season or part of a season.
	Graze fescue grasslands during the months of November and December.	Winter grazing avoids use during nesting season and helps to reduce litter (pipits don’t like a lot of litter)	Maintains the condition and productivity of rough fescue grasslands.
Avoid disturbance during peak nesting and rearing times	Delay haying until mid-July.	Minimizes nest disturbance. Allows pipits to nest and successfully raise their young without destroying the nest or birds.	
	Minimize activities such as the use of off-road vehicles during nesting period (until mid July).		
	Ask industrial developers to wait until July 15 to disturb the land.		

Table 3: Recommendations for Loggerhead shrike

BMP Recommendations	Methods	Benefits to Loggerhead Shrike	Benefits to Your Operation
Retain native prairie	Avoid cultivating native prairie.	Shrikes prefer natural habitat but will nest in modified landscapes.	A more sustainable operation; greater native forage yield over the long-term.
	Re-seed tame pastures or cropland to natural grassland; consider using native mixes recommended for your soil type.		
Promote habitat patchiness in grasslands	Graze at varying degrees to provide variable grass heights and patches across the landscape (heavy, moderate, light use).	A mosaic of vegetation heights is most suitable for Loggerhead Shrike foraging needs.	Safe and clean water to cattle; improves cattle health.
	Leave a buffer of taller grassy areas around water bodies, and field edge when cultivating or haying.	Provides dense vegetation cover for prey.	
	Use fencing, salt blocks, and off-site watering systems to protect grassy margins from livestock and distribute cattle throughout the upland.		
Maintain/Restore trees/shrubs	Avoid planting trees/shrubs on native prairie.	Woody vegetation is not naturally abundant in native prairie and may negative impact other grassland species.	May become invasive and reduce range condition/health of your pastures.
	When restoring an existing shelterbelt or yard-site, consider planting native species like thorny buffaloberry and Manitoba maple.	Preferred nesting habitat for Shrikes. Thorns are used to impale prey!	Introduced, invasive species such as caragana and Russian thistle are harder to control.
	Fence or place salt blocks away from woody vegetation, dead trees etc. to protect from livestock.	Maintains suitable nesting sites.	Saves on restoring or planting costs.
		Dead branches and snags can provide perching sites.	Trees/shrubs are natural snow catch for your pastures.

Table 4: Recommendations for Ferruginous hawk

BMP Recommendations	Methods	Benefits to Ferruginous Hawk	Benefits to Your Operation
Retain native prairie	Avoid cultivating native prairie.	Preferred nesting/foraging habitat.	Sustainable, long-term forage.
	Re-seed tame pastures or cropland to natural grassland; consider using native mixes recommended for your soil type.		
Promote habitat patchiness in grasslands	Graze at varying degrees to provide variable grass heights and patches across the landscape (heavy, moderate, light use).	Dispersing cattle more evenly will improve nesting success.	May result in better yields and increased range health and water quality.
	Placing salt away from watering sites will help to distribute cattle.		
Reduce/eliminate use of chemicals	Use mechanical means (shooting, trapping) rather than the use of poisoned meat or grain for rodent control.	Many raptors are vulnerable to poisoning through ingestion of contaminated prey which may negatively affect their breeding success.	Ferruginous Hawks are natural pest control: One family will consume nearly 500 ground squirrels in one season!
	Do not eradicate ground squirrels, instead control populations so that they are compatible with the economic activities on your lands.	Primary food source for these hawks and other raptors.	
Protect natural trees/ shrub complexes	Replace dead or dying nest trees with a pole/ platform. Reinforce the bases of weak or unstable nest trees with wire mesh, netting or lumber.		
	Plant trees or shrubs more than 1 mile of known burrowing owl nest sites.	Burrowing Owls and other ground nesting birds may become prey for Ferruginous Hawks if they are within their foraging range.	
	Fence or place salt blocks away from woody vegetation, dead trees etc. to protect from livestock.		Trees/shrubs are natural snow catch for your pastures.
Protect river banks and riparian areas	Develop off-stream stock water, fencing, where necessary, to control heavy use of riparian areas by livestock.	Protect trees from trampling and nests located on banks from falling due to slumping banks.	Protects slopes from slumping.



Burrowing Owl



Sprague's pipit



Loggerhead shrike



Ferruginous Hawk and young

This section may include a map of Species-at-Risk observations on the Cooperator's land(s).

Conclusion

The purpose of this Species at Risk Conservation Plan was to provide you with possible beneficial management practices (BMPs) that enhance habitat for species at risk on your land while allowing you to operate your ranch in a way that will satisfy your objectives. We are happy to help you find the resources you may need to enhance habitat on your land and are available to answer your questions and discuss concerns. As you will see many of our recommendations are cost free and require only consideration and small adjustments to management decisions. In cases where implementing BMPs does require an investment we will do our best to help you find the necessary resources.

OGC and partners are grateful for allowing us to conduct this assessment on your land and for the opportunity to provide you with this information. Your ranch is unique and we have tried to develop specific suggestions that will work in harmony with your objectives while still benefiting wildlife. By implementing our BMPs you will be helping provide habitat for animals that are at risk of disappearing from Alberta while maintaining your economic and community goals.

Please feel free to contact us at any time.

Thank you for being a part of the solution! You are helping to keep Alberta unique and our ecosystems healthy.

Appendix 1. Species List for your Ranch

The following is a list of wildlife species that have been recorded on or around the ranch, or that have a high probability of inhabiting the ranch based on the presence and condition of habitat features. This list is simply a quick reference for known or ‘probable’ species, and is in no way a complete or finalized list of species on the ranch. This list is based on sightings as indicated in the Fish and Wildlife database, actual sightings during the assessment, historic sightings from the landowner, and probable occurrences using a habitat suitability model for some of the species in question.

Mammals	
White-tailed deer	Mule deer
Pronghorn	Coyote
American badger	Porcupine
Northern pocket gopher	Richardson’s ground-squirrel
Long-tailed weasel	White-tailed jack rabbit
Birds	
Swainson’s hawk	Golden eagle
Ferruginous hawk	Loggerhead shrike
Bald eagle	Blue winged teal
Sharp-tailed grouse	Grey partridge
Northern harrier	Lark bunting
Burrowing owl	Ring-necked pheasant
Savannah sparrow	Prairie falcon
Western meadowlark	Horned lark
Sprague’s pipit	Short eared owl
Canada goose	Lesser scaup
Northern shoveler	Mallard
American coot	Canvasback
Green winged teal	Eared grebe
American wigeon	Northern pintail
Baird’s sparrow	Common nighthawk
Willet	Marbled godwit
Common tern	Barn swallow
Franklin’s gull	Black-billed magpie
Brewer’s blackbird	Bank swallow
Brown-headed cowbird	Red-winged blackbird
Long billed curlew	Vesper sparrow
Amphibians/reptiles	
Boreal chorus frog	Great Plains Toad
Plains spadefoot	

Financial and In-kind Support

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