



Alberta Wilderness Association
"Defending Wild Alberta through Awareness and Action"

May 6, 2020

Alberta Energy Regulator
Suite 1000, 250-5 Street SW
Calgary, Alberta T2P 0R4
Email: SOC@aer.ca

Re: Statement of Concern - Horn Ridge Resources Ltd. Application # A10103910

Please accept this letter as Alberta Wilderness Association's (AWA's) formal Statement of Concern in the matter of Horn Ridge Resources Ltd. application to the AER #A10103910.

Founded in 1965, AWA works throughout Alberta towards the completion of a protected network of representative wilderness, and for stewardship of all lands that are the source of our water, fresh air and vital wildlife habitat. With more than 7,000 members and supporters AWA inspires communities and individuals to care about wilderness.

The proposed Horn Ridge Resources Ltd. coal exploration program and any subsequent industrial activity in these primarily road-less areas will significantly harm valued local wildlife populations and the ecological integrity of the sensitive alpine and sub-alpine landscape.

The area proposed for exploration encompasses wildlife ranges for species at risk such as threatened woodland caribou and grizzly bears, and is particularly well known for providing vital habitat for bighorn sheep and mountain goats.

For decades, the populations of bighorn sheep and mountain goats in the area of the proposed exploration have served as important source populations for each species within Alberta, and have been the subject of many scientific studies and surveys to help researchers better understand behavioural responses of these species to human activities. Mountain goats and bighorn sheep are known to be sensitive to human activities and disturbance. Peer-reviewed research conducted on Caw Ridge - the ridge just north of the proposed drill sites in Township 58, Ranges 9 and 10 (W6M) - demonstrated that helicopter overflights during summer months can significantly disintegrate social groups within mountain goat herds and indirectly cause harm to fleeing individuals¹. This study recommended helicopters should remain at least 2 kilometers away from goat herds, and recommended a buffer zone for aerial traffic of 2 kilometers around alpine areas known to support mountain goat populations, including treeless ridges and cliffs. It also recommended that seismic lines should not be created in goat habitats such as alpine tundra, cliffs and open forest close to timberline; AWA believes similar restrictions should apply to coal drill sites.

In addition, bighorn sheep have displayed increased vigilance and maintained costly energetic states as a response to human activity². Coal exploration will negatively impact habitat quality through direct landscape alterations, and diminish effective habitat use of both species by means of increased avoidance behaviour.

Negative impacts from this proposed exploration program will also extend to local plant communities. Alpine and subalpine vegetation that dominate the proposed drilling sites are characterized as sensitive to disturbance and slow-growing species. The ground clearing elements of the coal exploration will actively dismantle these vegetation communities with the significant risk that they may never recover.

The headwaters of the Sheep River, upstream of proposed drill sites, are bull trout and mountain whitefish habitat. Several drill sites are planned in the vicinity of the Sheep River mainstem, while other drill sites are in watersheds of tributaries to Sheep River. Even with stated buffers on permanent watercourses, AWA is concerned about potential impacts to fish habitat and migratory fish populations due to possible changes to hydrological regimes (for example, cutoff/contamination of groundwater, increased water temperature, or sedimentation) from the disturbed drill sites created by the exploration program.

The proposed exploration area falls within Grizzly Bear Management Area 2- Grande Cache (BMA2), an important population for the recovery of the threatened species within Alberta. This population of grizzly bears are considered stable due to their relatively low mortality rate compared to other BMAs within the province³. The area has few linear features, such as roads and seismic lines, which increase human access into grizzly bear habitat and have been demonstrated to significantly increase human-caused mortality of grizzly bears. Human-caused mortality is the leading cause of grizzly bear population declines within Alberta. The proposed exploration program will increase human presence within grizzly bear habitat, and regress the stability of the BMA 2 population.

The Horn Ridge coal leases and proposed exploratory drill sites overlap with part of the home range of the threatened Redrock-Prairie Creek southern mountain woodland caribou population. The Redrock-Prairie Creek caribou herd has endured excessive anthropogenic disturbances across their range. In 2017, Redrock-Prairie Creek winter range habitat was only 29% undisturbed, and total range habitat was 48% undisturbed, both far below minimum requirements of at least 65% undisturbed for this migratory corridor area^{4,5}.

The key threat to these caribou and their habitat is excessive predation driven by industrial activities, including coal extraction. Because of serious caribou population declines, very drastic annual wolf culls have been in place since late 2014 in Redrock-Prairie Creek caribou range, yet caribou numbers have not stabilized and habitat disturbance continues.

There is an urgent need for landscape-level coordinated actions to maintain and restore caribou habitat across Redrock-Prairie Creek caribou range. AWA believes this proposed coal exploration program will increase the vulnerability of the Redrock-Prairie Creek caribou, and further contribute to population declines. The Redrock-Prairie Creek caribou range is also currently part of the Alberta government's Upper Smoky caribou sub-regional task force planning process. AWA believes it is unacceptable to approve additional industrial impacts within caribou range, including in Horn Ridge Resources' leases, without any enforceable caribou range plan in place to assure habitat for caribou persistence and recovery.

AWA is equally concerned that the proposed coal exploration will diminish the ecological integrity of surrounding protected areas and key wildlife biodiversity zones. The proposed exploratory areas overlap with provincially designated Key Wildlife Biodiversity Zones, as well as some of the exploratory areas border on the northern and eastern borders of the Willmore Wilderness. The Willmore Wilderness is a legislatively protected and invaluable untamed wilderness, remaining virtually untouched by industry

and development. AWA believes that the proposed exploration would compromise Willmore Wilderness and related wildlife biodiversity zones within the region. There is no buffer around these protected areas and wildlife zones to prevent the encroachment of negative effects including habitat fragmentation and reduced habitat quality.

AWA respectfully requests that this exploratory application and any potential subsequent coal extraction activities be denied.

Sincerely,
ALBERTA WILDERNESS ASSOCIATION



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Literature Cited

¹Côté, S.D., 1996. Mountain Goat Responses to Helicopter Disturbance. *Wildlife Society Bulletin*, 24(4), 681-685.

²MacArthur, R.A. et al, 1979. Factors influencing heart rate in free-ranging bighorn sheep: a physiological approach to the study of wildlife harassment. *Canadian Journal of Zoology*, 57, 2010-2021.

³Alberta Environment and Parks. 2016. Alberta Grizzly Bear (*Ursus arctos*) Recovery Plan,. Alberta Environment and Parks, Alberta Species at Risk Recovery Plan No. 38. Edmonton, AB. 85pp.

⁴Government of Alberta, Draft Provincial Woodland Caribou Range Plan Appendices, 2017

⁵Government of Canada Recovery Strategy for Woodland Caribou, Southern Mountain population, 2014