

POWDER RENEGADE LODGE PROPOSAL

SOME SUBMISSIONS TO GOVERNMENT FROM GROUPS

JANUARY 2021

Boundary Alliance pdf pages 2 thru 13

B C Wildlife Federation pdf pages 14 & 15

B C Wildlife Okanagan Region pdf pages 16 & 17

Granby Wilderness Society pdf pages 18 thru 26

Speak up for Wildlife Dr Brian Horejsi pdf pages 27 thru 44

Wildsight pdf pages 45 thru 48

Valhalla Wilderness Society pdf pages 49 to 52

Sinixt People pdf page 53

Al Peatt pdf pages 54 & 55

“honorary group” former Ministry staffer whose comments from 1997 giving reasons for the GAR Order can be seen in more detail in Boundary Alliance Submission

BOUNDARY ALLIANCE www.boundaryalliance.org
SUBMISSION TO GOVERNMENT Jan 13 2021
Email to Sharon Dailey re PRL Proposal

We attach our PDF comments re this proposal and urge rejection.

We have additional concerns that we expect to take to another, political, public level but some general concerns follow.

The process to inform the public is completely inadequate. It is even more inadequate in this time of Covid where the opportunity for public gatherings, even person to person contact, is a risk. We have further referred to timing of the application in our attached concerns. Dependence on miniscule ads in local papers is farcical. Given reduced newspaper usage/subscriptions it is capable of informing few. Applications in this category could/should also require signage be posted at a prominent access location(s) that would be main access points to the lands in question. In the PRL case a clearly suitable location would have been Westbridge. Such notice is the norm in Municipalities re proposed development, small and large, and is clearly possible under 5.4.1 of Land Procedure Allocation Procedure guidelines. The timing and notification issues suggest an intent to bypass and avoid public response.

The numerous shortcomings in providing reasonable public notification require that responses be tallied and be multiplied by a significant factor, with the clear understanding that responses are from only a small number of informed responders.

A comment on goat. Contrary to information given by proponents, there has been Limited Entry Hunting for goat in the MU. While accurate information is hard to come by as to the presence and frequent locations of goat, that is in large part due to observers having to spend inordinate amounts of time scanning for their presence. It is also the case that some observers, Guides and other hunters, do not wish to reveal their knowledge re specific viewings any more than they would wish to reveal their favourite fishing holes. Given goat sensitivity to human activities, greater sensitivity even than Grizz, this application and its disturbances would make any further use of this area by goat, highly unlikely.

A comment on economics. The Proponents suggest that their proposal fits within the “required balance of social, economic and environmental values” in the KBHL Plan.

Crown Land Allocation policies repeatedly refer to consideration of social, economic, and environmental issues. The mantra of “Balance” is invariably brought up by proponents, politicians and bureaucrats.

Lets look at “balance”: Balance is an evocative word, it makes us think of fairness, reasonableness, impartiality, all sorts of warm and fuzzy stuff.

In Allocation and Development, Balance usually means taking a big bite out of the environment with no consideration of cumulative effects (the bites already taken.) or probable future “balancing” bites from other extractive or exploitative

“shareholders” given access to public lands in the multiple overlapping tenures that exist thanks to the notion of multiple use. Multiple use is frequently multiple misuse.

We are “balancing” and then “rebalancing” our natural resources into stressed, damaged and ruined ecological systems to the point that it is threatening our own future well being. Consideration of social values can be the yelling hordes of offroaders or mountain bikers who demand their right to operate on and damage, public lands or other users who see their use of public lands as a right.

The economic benefits touted in this plan completely fail to acknowledge the environmental costs, the GHG costs and more that would identify this type of operation as having a significant detrimental environmental footprint in and outside of the tenure.

Government, particularly in resource issues has had a long time unjustified and massively costly habit of ignoring the “what-ifs” and the “probables” in projects.

Government has had a habit of deliberately excluding these from consideration in Reports and Reviews. The Public cost becomes apparent from time to time. Site C will stand as a monument to the failure to consider the what-ifs and the probables, which are those things essential to consider in any risk analysis.

We suggest that even a minor review of the what-ifs and probables of this proposal is enough to warrant rejection of this elitist proposal and its unwarranted ecological footprint.

AI Grant for

www.boundaryalliance.org

WE ASK FOR TERMINATION or DELAY of POWDER RENEGADE LODGE PROPOSAL

THIS MASSIVE SKI-CAT OPERATION AND LODGE

WANTS TO OCCUPY AN AREA OF 8847 Ha

BETWEEN THE KETTLE & GRANBY DRAINAGES

It is an area that can be visualized better when imposed or imagined on other areas, 21 km long and up to 12.6 km wide.

As the Crow Flies:

Grand Forks to Midway 18.6 km

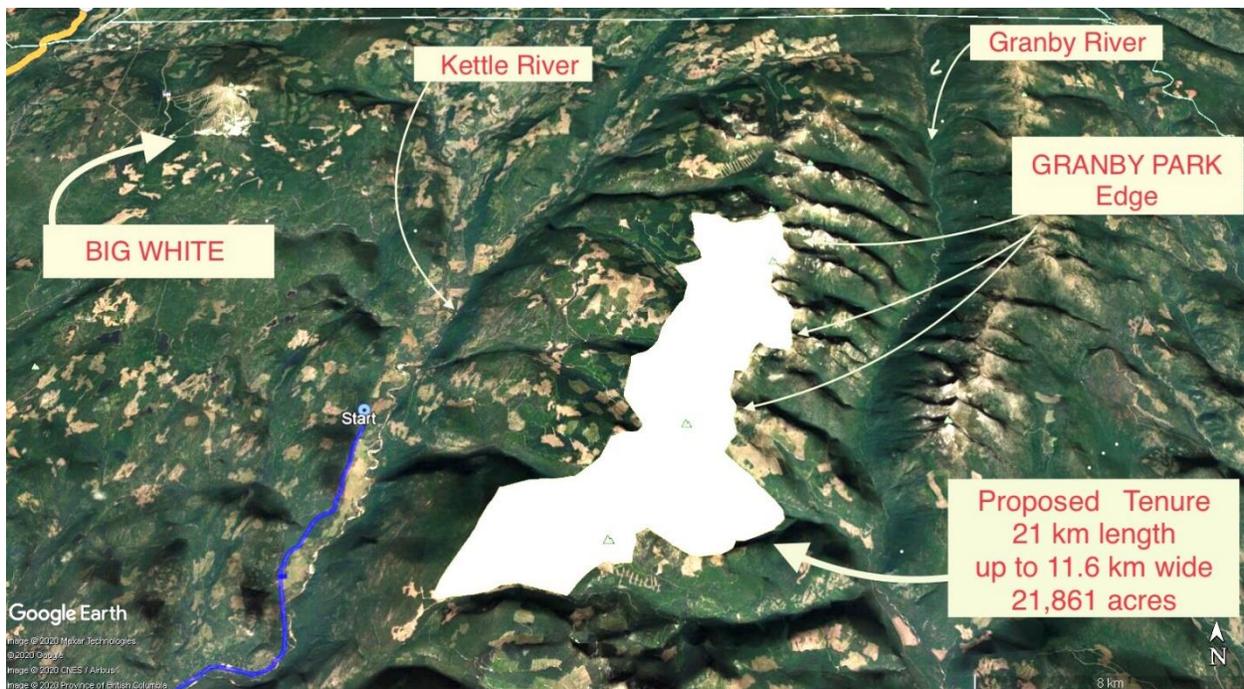
Grand Forks to Nth of Jewel Lake 20 km

Osoyoos to Oliver 17 km

Osoyoos to Bridesville 20.8 km

Osoyoos to Baldy 21 km

Rock Creek to Baldy 21 km



OUR EXPANDED CONCERNS Summary of Concerns expanded.

- (1) **Completely inadequate Public notification process and response period** the application only came to “limited” public attention on Nov 19th 2020 following advertisement in the Boundary Creek Times and subsequent advertisements in the Grand Forks Gazette on Dec 2nd and 9th as per direction from Government to “advertise in local papers”. Due to late filing of the ads, the comment period was moved from Dec 31st to Jan 14th Although the applicants were given guidance to proceed in Feb 2020, whatever processes the Proponent and/or Government were engaged in, the public only recently received notice. Furthermore the proponents declined to be interviewed for a story published in the Grand Forks Gazette on Dec 16th. This late season filing, and ridiculously short response period works to prevent adequate public discussion, review and comment. In this season, it is not possible for interested parties and professionals to do the on the ground assessments crucial for a project of this scale. Government needs to follow our recommendation for a 1 year delay to address the concerns.
- The notion put forward by the proponents that “mitigation and diligent use measures” will solve deficiencies during the build-out is not credible.** It joins numerous other claims by the Proponents that are not credible.
- (2) **Overlap into Motor Vehicle Closed Area, trashing the intent of that closure.** This overlap and the Lodge, other accommodations, service buildings, services and more, all being built in the Motor Vehicle Closed area, trashes the intent of the MV closed area. Such closures were made years ago to provide some level of protection from disturbance around the Granby Park, with knowledge that Park boundaries alone do not provide the needed habitat and low disturbance benefits needed by a variety of species, particularly Grizzly and Wolverine. Check our links to these reports. You will find many more online. The plan can be predicted to have spillover effects into Granby Park where the proponents had initially proposed operation. The possibility of similar intrusions in the larger Motor Vehicle Closed areas around the top and to the East of Granby Park should be a wakeup call. Our other pages show the possible areas under threat and the larger highly impacted area around the PRL proposal.
- (3) **Entire Area in Kettle Granby Grizzly Wildlife Habitat Area, GAR Order 8-373, trashing intent of that designation.** This designation is intended to provide various protections for Grizzly. Notwithstanding applicants claims of seasonal use only, maintenance needs and other servicing and the probability that **applicants will seek expanded season use** (despite current denials) trashing of the intent of the GAR is inevitable. Map of the Secure Core Area is in earlier pages along with link to the GAR Order. **The suggestion that the “Grizz will be sleeping”** and therefore not bothered by the disturbance is highly misleading. It is well recognized in the literature that grizz hibernation is more like a long period of drowsiness in which grizz may move about, go outside in warm weather. With questions already as to the snowpack, possible global warming effects for which we

should not assume will not happen here. The snow depth/viability issue is further discussed in Concern 11.

- (4) **Massive operation with Ecological Footprint far exceeding the Tenure Footprint.** Any Environmental Assessment of value, needs to include the Ecological Footprint and related economic and environmental costs. Along with heli ski ops, cat ski is the worst of the worst in recreational skiing. The whole field is belatedly recognized for environmental costs.
- (5) **Completely inadequate “armchair” assessment.** As discussed above. That a project of this size and consequence has been brought forward without full “on the ground” assessment is astonishing, but it also appears as though the proponents, in their own words, have planned the project based on google earth views, a couple of helicopter trips and some snow mobile forays. All not nearly adequate. Our own guidance on what is essential in an EIA to follow later.
- (6) **Due to application timing and season, no opportunity for interested parties to do the necessary ground assessments.** Plan rejection or a delay are essential to enable the on the ground review in spring and summer by interested parties and professionals.
- (7) **Loss of Habitat in an already fragmented landscape with serious consequences for the threatened Kettle-Granby grizzly and other wildlife,** by way of effective disturbance resulting in probable displacement of wildlife. An abundance of reports, (see our website links for just a few) many on grizzly and wolverine that share a commonality. Roads are a problem for these and other species, more roads and trails will increase the problem. The impacts are well documented and ignoring them will continue the trend in which wildlife largely continues to decline. Goat, caribou have been past occupants of this general area.
We urge Government to not continue to preside over the demise of more species.
- (8) **Accelerated runoff with attendant issues from roads and trails leading to increased flooding risk.** More roads, trails, tree removal, and a predictable increase in wind-blown, snow press damage will all contribute to the timing, and release of melt water and contribute to factors that result in flooding.
- (9) **Many new roads and trails with attendant tree removal proposed in areas in addition to already high existing road network** In addition to accelerated runoff mentioned above, terrain is further fragmented with consequences for a variety of wildlife including providing “improved” paths for wolves.
- (10) **Highly mechanized operation with noise and air pollution in and out of tenure.** in addition to heavy machinery needed for logging, trails, building and more, continuing operation using cat-ski machines, snowmobiles, helicopters for supplies and ferrying in clients, diesel generators and likely other gas using snow machines, plus the greenhouse gas impacts of clients flying in from wherever means that this project is not as claimed by the proponents. Namely, a project, “that will have minimal impact on the land and wildlife values” and “ is sustainable for the long term.” These comments are

unsurprising from Proponents who celebrate “the legacy of logging roads (that have been) crucial to the creation of this industry.” and that these roads are “a great example of how existing forestry roads can all allow for the creation of a new and long term sustainable operation.....”

Anyone concerned about habitat, wildlife and pollution, local and global, (Government ?) must reject the Proponents assertions.

- (11) Concerns as to Government intent to “favour” this application.** It has been startling to hear that Government might favour this application in view of the tale of “loss” of an earlier tenure as told by the Proponents. “That the Province has been very supportive of the (Proponents) in their pursuit of a replacement cat skiing tenure, as they understand the devastating loss.....”

Whatever risks the Proponents failed to recognize and however incomplete due diligence was for that earlier proposal, is all on the proponents. It is no reason to “favour” this bad plan.

Viability. The snow depths sufficient for this project to be viable or of depths sufficient to protect vegetation from operations, are questionable. The previous tenure holders intended heli skiing and 4 season operation but according to those owners, put their operation on hold after two successive poor snow years. With or without global warming, low snow would have the proponents seeking expanded seasons for a variety of purposes, despite current denials.

Other comment has indicated that Government is ready to “favour” job creation over the environment. There is a long history of that, and the costs to the environment become more obvious every day. Employment, largely of the itinerant, transient kind, should be recognized as nothing that justifies environmental costs.

There are also indications that relevant information from some within Government with knowledge of the risks to wildlife have been excluded from or not invited to comment on this proposal. We expect that the new Minister should be tasked with investigating this and other issues related to policies, practices and legislation governing resource allocations.

We expect to post further on the frequent mantra that “we need to balance, social, economic and environmental issues”. Balance sounds reasonable in this context, except it invariably results in a “big bite” out of the environment with no consideration of cumulative effects and probable future effects.

- (12) Exaggerated economic benefits and no costing of environmental consequences. Irony of proposing high ecological harm, global warming enterprise of a type already recognized as contributing to loss of ski seasons world-wide, amongst other harms.**

And no, the disturbances will not all take place “while the grizzlies are sleeping”.

The “Renegade” name is appropriate.

OVERLAP INTO MOTOR VEHICLE CLOSED AREA



LARGE PORTION OF THE PROPSAL INTRUDES INTO THE GRANBY WEST MOTORIZED VEHICLE CLOSURE AREA and is

ALL IN THE KETTLE GRANBY CRIZZLY WILDLIFE HABITAT ZONE

The OVERLAP is about 2400 HA or 5930 acres and that is about 27% of the proposed tenure and a 19% bite into the Motor Vehicle Closed Area. This intrusion is also where the Lodge, other accommodations, service buildings, services and activity hub are planned.

THIS INTRUSION ALONE SHOULD HAVE DISQUALIFIED THE APPLICATION IN THAT IT COMPLETELY TRASHES THE INTENT OF THE MOTOR VEHICLE CLOSED AREA

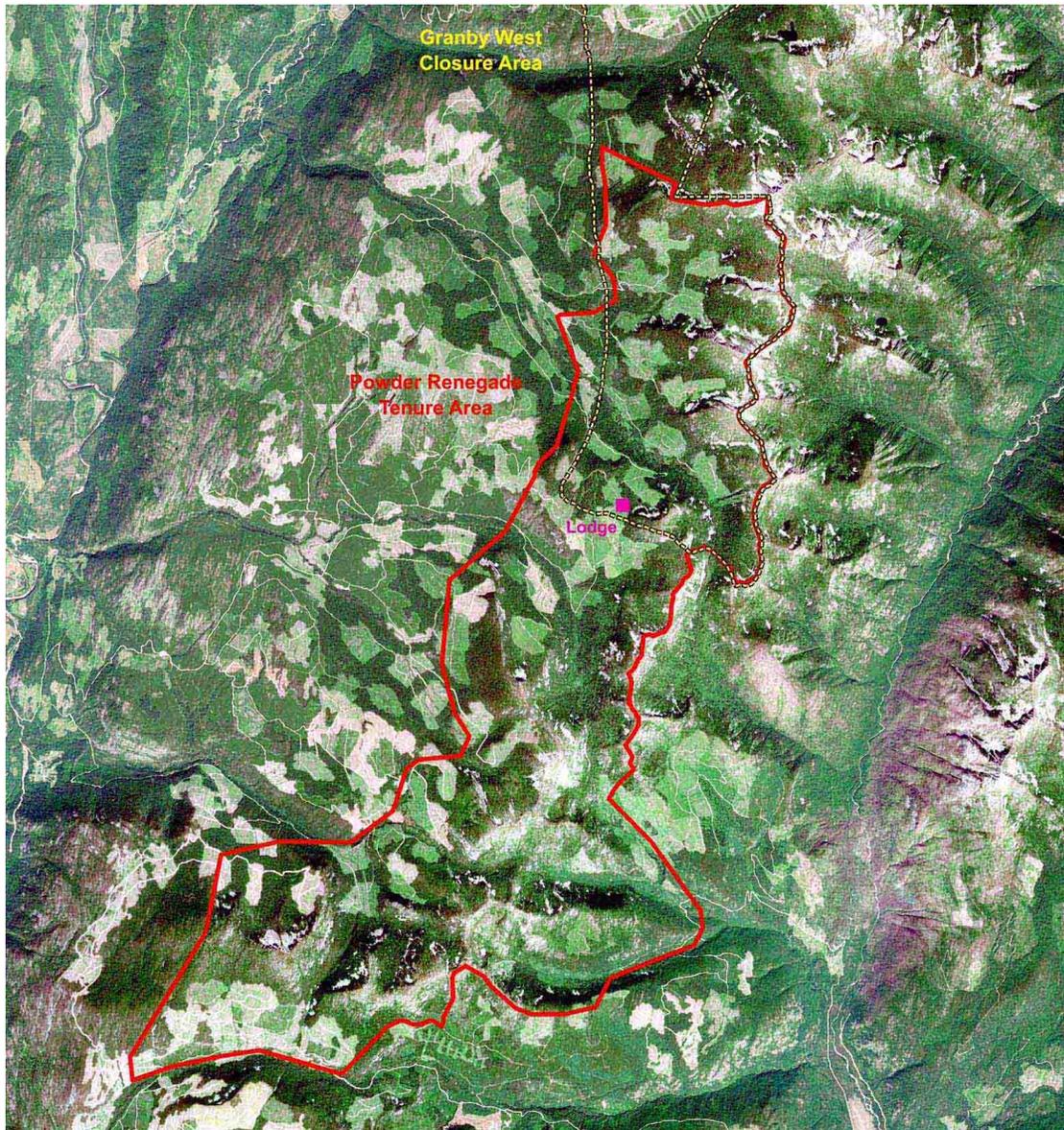
NOTE THE LEVEL of FRAGMENTATION AND DISTURBANCE ALREADY IN THIS GENERAL AREA.

THE FAILURE OF GOVERNMENT TO PROTECT THE NATURAL VALUES OF THIS AREA,

by removing this area from consideration, may have now imposed a statutory requirement that this application be considered. If Government is therefore unable to terminate the application at this point (as we recommend) then we say that it would be a travesty to proceed with this flawed application as is, that it is not possible to address the major concerns through any build out process.

WE RECOMMEND A DELAY of ONE YEAR BE IMPOSED

FULL PERIMETER VIEW



Full Perimeter view shows the already fragmented and disturbed areas in and around the Perimeter which is occurring despite the intent of the Motor Vehicle Closure Area and the bigger Grizzly Secure Core Areas that extends through this whole view.

More to come on the Secure Core Areas, mapping and more showing the continuing losses of Secure Core Areas. Insecure Areas might be more appropriate.

MOTOR VEHICLE CLOSED AREA

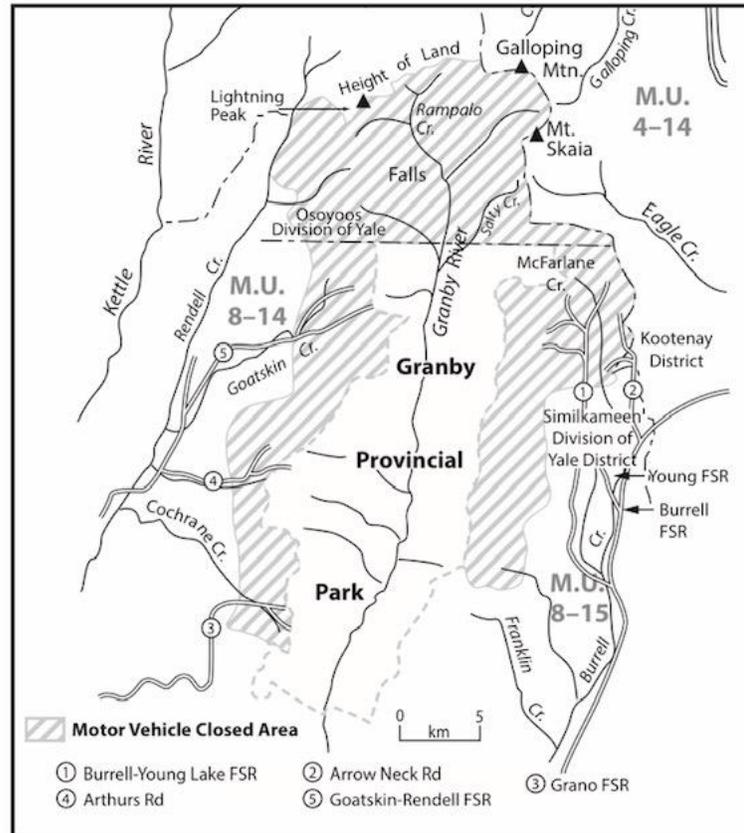
Extract from information provided by Government to the Grand Forks Gazette in 1997 as the closures were about to be implemented:

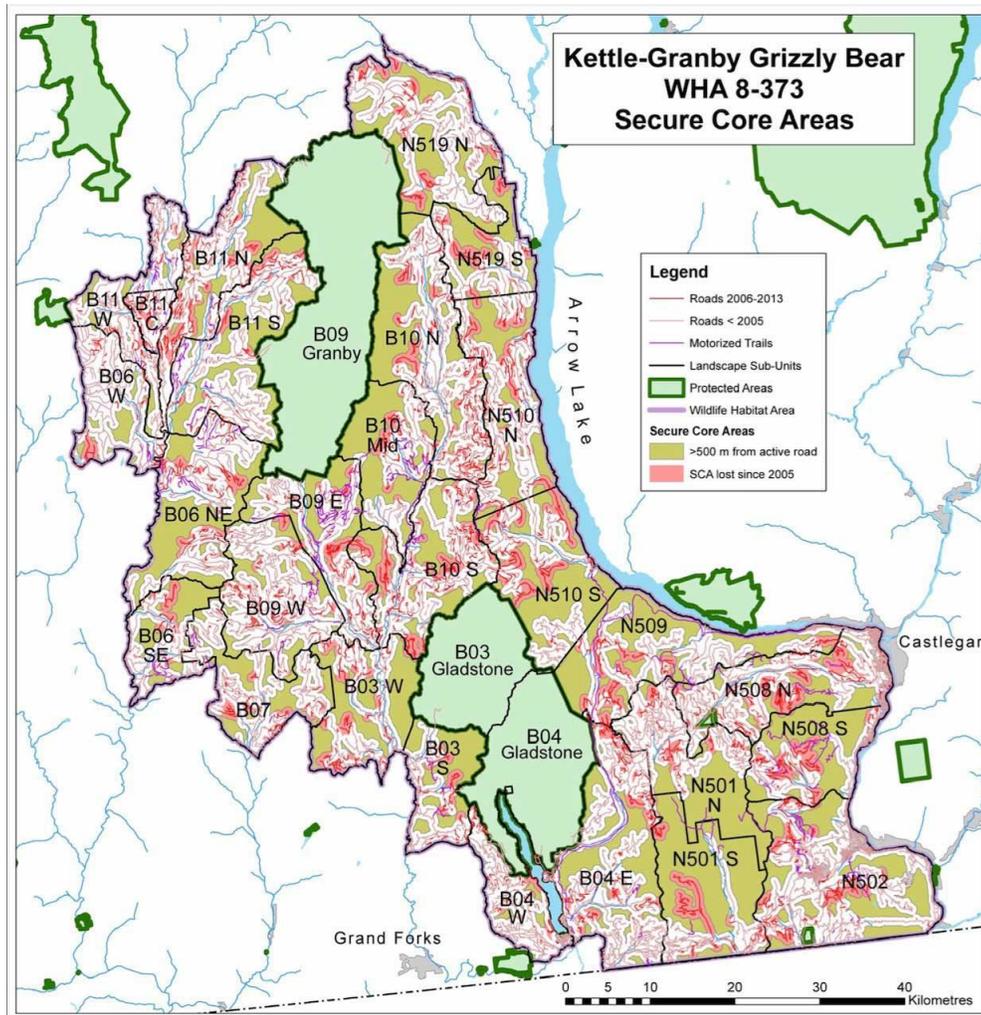
“ The habitat program is concerned that activities associated with ongoing forest development be mitigated such that any negative effects on grizzly bears and their habitats be minimized.

That concern centers on the need to maintain temporal and physical isolation of grizzly bears from human intrusion; to maintain habitat use

patterns; reduce the possibility of direct human-caused bear mortality (poaching or accidental death); and to lessen the likelihood of human interaction leading to human/bear conflict (ie.human defense kills) and/or habituation with humans (ie. campsite raids).

This proposal is to partially mitigate the negative and cumulative effects of impending road access due to timber harvesting on grizzly habitat in the Kettle-Granby drainages. Grizzly bears in wilderness situations are likely to become negatively associated with open roads and development activity and therefore may be displaced from important habitat where roads and/or frequent human activity occurs. An eventual “band” of forest development around the Granby Park may act as a barrier to elevational movement and may force bears to remain within the park boundaries, effectively reducing their currently available habitat area. The areas proposed for vehicle restriction are adjacent to the new Granby Park and are relatively inaccessible to motor vehicles at present. Exceptions are the Lightning Peak area; and the recently road construction will occur in virtually every watershed surrounding the Granby Park over the next few years. This proposal proactively addresses maintenance of the bear’s physical isolation from human influence while permitting legitimate commercial use of timber and mineral resources.”





Mapping by David Laversee, wildlife biologist and GIS Consultant

KETTLE GRANBY

GRIZZLY WILDLIFE HABITAT AREA

map indicates the area under supposed protections as per GAR Order 8-373 and shows the decline in Secure Core Areas from 2005 to 2013

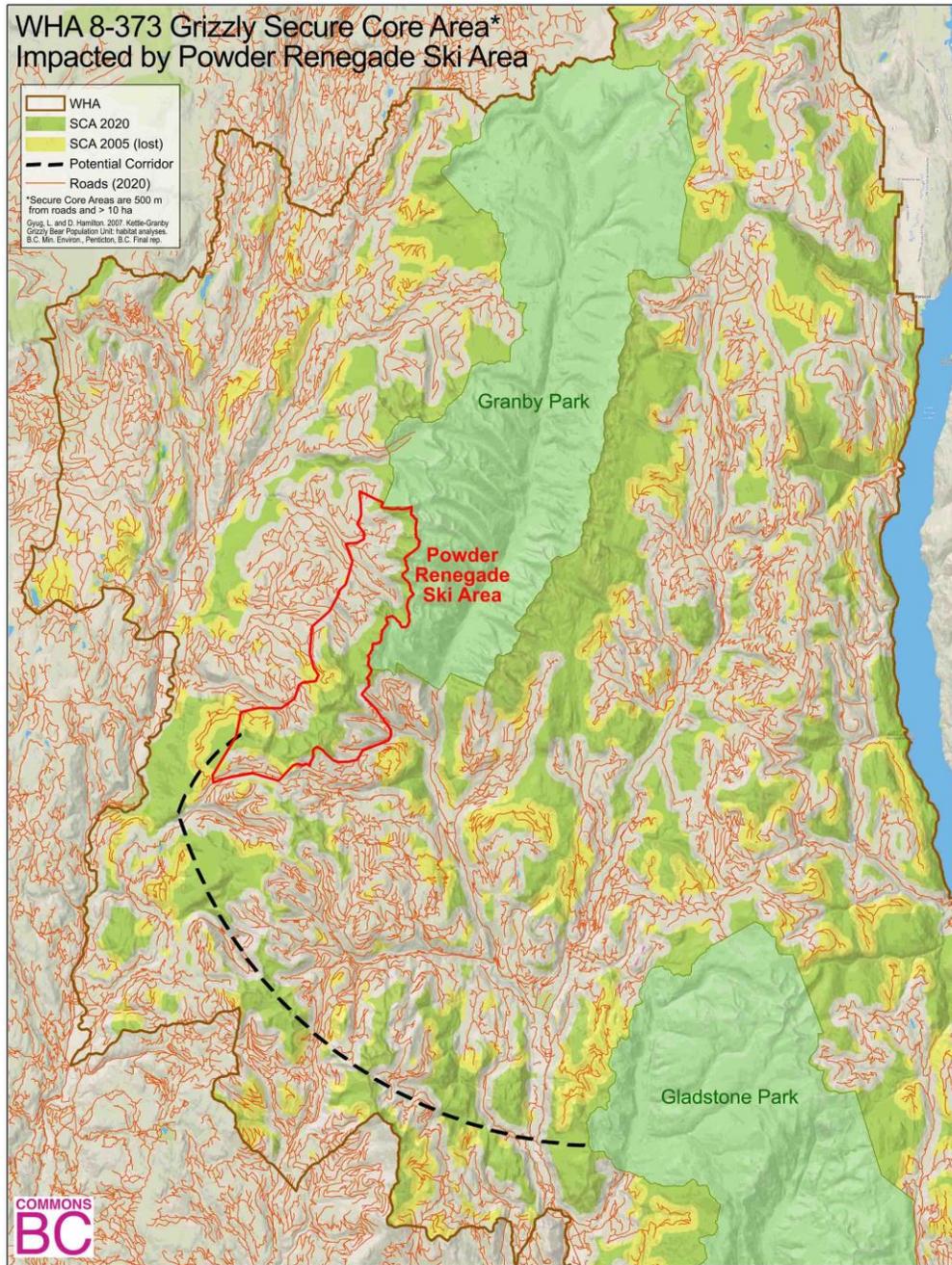
Note the Secure Areas Lost (orange areas) since 2005

Approval of PRL proposal would further reduce Secure Core Areas, putting grizzlies at risk.

The GAR ORDER 8-373 can be viewed [Here](#)

AN UPDATE ON THIS MAP ON THE FOLLOWING PAGE

2020 MAP SHOWING SHRINKING SECURE CORE AREAS AND PRLS's planned further intrusion.



Mapping by David Lerversee wildlife biologist and GIS Consultant

REFERENCES

Our comments were informed by various studies and conversations with authors of some of the studies and other biologists.

Our online versions of this document www.boundaryalliance.org included a handful of these studies to provide concerned citizens with some limited list of relevant Studies. Our intent in limiting the list was to avoid overwhelming people with the abundance of available studies.

The commonality in these Studies is the problem of existing roads exceeding recommended guidelines and the damaging issue of increased roads, access and disturbance.

The sad reality is that despite these cautions, the existence of MV Closed Areas and WHA GAR Order, roads have increased over time rather than decreased as was to follow from direction in the GAR Order and Appendix. They are being increased at this moment, while the intent of those intended protections has failed and would be further damaged by this proposal.

END of Boundary Alliance submission



Ms Sharon Dailey
Senior Authorizations Specialist
Crown Land Authorizations
Kootenay Boundary Region

January 11, 2021

Re: Crown Land Files 4406147, 4406148, 4406149 – Powder Renegade Lodge proposal

Dear Mrs. Dailey,

On behalf of the 43,000 member BC Wildlife Federation, I would like to register our opposition to the Powder Renegade Lodge (PRL) proposal for a cat skiing and lodge construction tenure as described in the above-referenced Crown Land Files.

The area in question is part of a grizzly bear recovery area, with road closures and extensive studies in place to help protect this iconic species. Government Action Order 8-373 is a wildlife measures order signed in 2010 that specifically outlines protective measures for this threatened grizzly bear population. Increasing road density and human interference in this area by granting the PRL tenures is in direct contradiction to GAR 8-373.

The Forest Practices Board has also recommended remedial measures to government for this area in their file [97250-20/15048](#). Included in those recommendations are science-based concerns on road densities and setting aside core habitat for grizzly bear protection. Additionally, the valley has been subject to unsustainable logging practices, driving cumulative effects which have resulted in record low fish and wildlife values in the area.

Mountain goats have also been observed in the vicinity of the proposed tenures. Development and human pressure have already led to the extirpation of some smaller herds in Management Unit 8-15, as described by Gyug in [his Mountain Goat Population and Harvest Assessment in the Okanagan Region](#). These goat populations could sustain a hunt only a few decades ago, and have declined due to unsustainable land use planning.

Mountain goats are particularly sensitive to human and heli/cat skiing disturbances. [Cadsand et al](#) reported altered responses in mountain goats for up to two days after disturbance from helicopters.

These population units of mountain goats are small and struggling under current pressures; adding people and machines into their habitat, especially during the difficult winter months, could spell extirpation of these valuable, vulnerable population units. This area was home not long ago to herds of

mountain caribou, which have now been extirpated from this mountain range because of human development and pressure. We must ensure that we learn from what happened to our caribou herds and not repeat it with grizzly bears and mountain goats.

We are concerned that the project proponent declares that there is no hunting for mountain goats in the Okanagan region. This is false – there are limited entry goat hunting opportunities available in the region where sustainable populations still exist. We believe their assertion shows a lack of knowledge of wildlife and wildlife issues in this region, and their assessments of wildlife impacts should be viewed skeptically.

Moreover, with declining wildlife populations due to predation in the Kettle/Granby drainages, we are deeply concerned about the expansion of roads and cat trails required by this project. Studies have shown that predators are using roads and trails to become more efficient hunters, and have caused declines in ungulates such as moose, elk, mule deer and caribou in areas of increased road density. Preliminary results from the Southern Interior Mule deer Project have shown significant predation mortality in the Kettle/Granby study area; adding more access and more roads for this project is another nail in the coffin for wildlife in the area.

Although the proponents of PRL claim that creeks in the area are non-fish bearing (we have no independent confirmation of this claim at this early stage), it is a fact that all these streams ultimately flow into the Kettle River. The Kettle River has topped BC's Most Endangered Rivers List for consecutive years. Development such as PRL can result in increased sedimentation into tributary streams and ultimately into the Kettle River.

Water drawn for lodge use will further constrict dangerously low water supplies in the Kettle River. We don't know the effect of snow pillow disturbance and compaction from a cat skiing operation, and are unable to locate any assessment of such in the proponent's literature.

The Kettle River is a world-class rainbow trout fishery, and is managed conservatively and delicately because of its precarious water supply. Anglers' fees have gone toward extensive studies and rehabilitation of these fish stocks. Low water flows and subsequent summer warming threaten indigenous fish species in the river.

Our fish, wildlife, and habitat are under extreme pressure, and a number of populations are at record lows; approving the tenure is inconsistent with the public interest.

In Conservation,

Jesse Zeman
Director, Fish and Wildlife Restoration
BC Wildlife Federation



Ms Sharon Dailey
Senior Authorizations Specialist
Crown Land Authorizations
Kootenay Boundary Region

January 11, 2021

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These population units of mountain goats are small and struggling under current pressures; adding people and machines into their habitat, especially during the difficult winter months, could spell extirpation of these valuable, vulnerable population units. This area was home not long ago to herds of mountain caribou, which have now been extirpated from this mountain range because of human development and pressure. We must ensure that we learn from what happened to our caribou herds and not repeat it with grizzly bears and mountain goats.

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Our fish, wildlife, and habitat are under extreme pressure, and the granting of a tenure in such sensitive habitat would, in our analysis, be inconsistent with the public interest.

Respectfully submitted,

Patrick Whittingham

President, Okanagan Region - BC Wildlife Federation

250-470-2851

patwhittingham@shaw.ca

Report prepared for the Granby Wilderness Society regarding Proposed Commercial Tenure Application by Powder Renegade Lodge. Crown Land File: 4406147, 4406148 and 4406149.

By Jenny Coleshill, RPBio

The Granby Wilderness Society has concerns about the recent tenure application from Powder Renegade to develop an area adjacent to Granby Provincial Park for a backcountry ski lodge with helicopters and snowcats being the main mode of transport. They have asked me to review the application in the context of wildlife and ecosystem concerns.

This area is recognized as the unseeded territory of the Syilx people of the Okanagan Nation who have taken care of all lands, waters, and living things within the Syilx Territory.

To review the application a desktop assessment and literature review was done to determine current understanding of potential impacts. There are several management directives that were also reviewed resulting from the recent data of the population inventory of the Kettle Granby Grizzly Bear Population. This is by no means an in-depth analysis but provides further context and information to those concerned.

Recent literature suggests that winter recreation can impact carnivore species (Squires et al. 2019; Heinemeyer 2019). Banff National Park recently closed an area to backcountry skiing for a denning grizzly bear. Equipment has advanced in the last decade and more and more people are getting into the backcountry much faster and easier and wildlife are being impacted.

Powder Renegade Proposed Tenure Site Description

The Powder Renegade Tenure Application covers an area of approximately 88 km² and is adjacent to the west side of Granby Provincial Park (see Figure 1). The tenure area covers the proposed operating area of skiing activities via transport with a snowcat and includes building sites for a lodge to accommodate guests and staff.

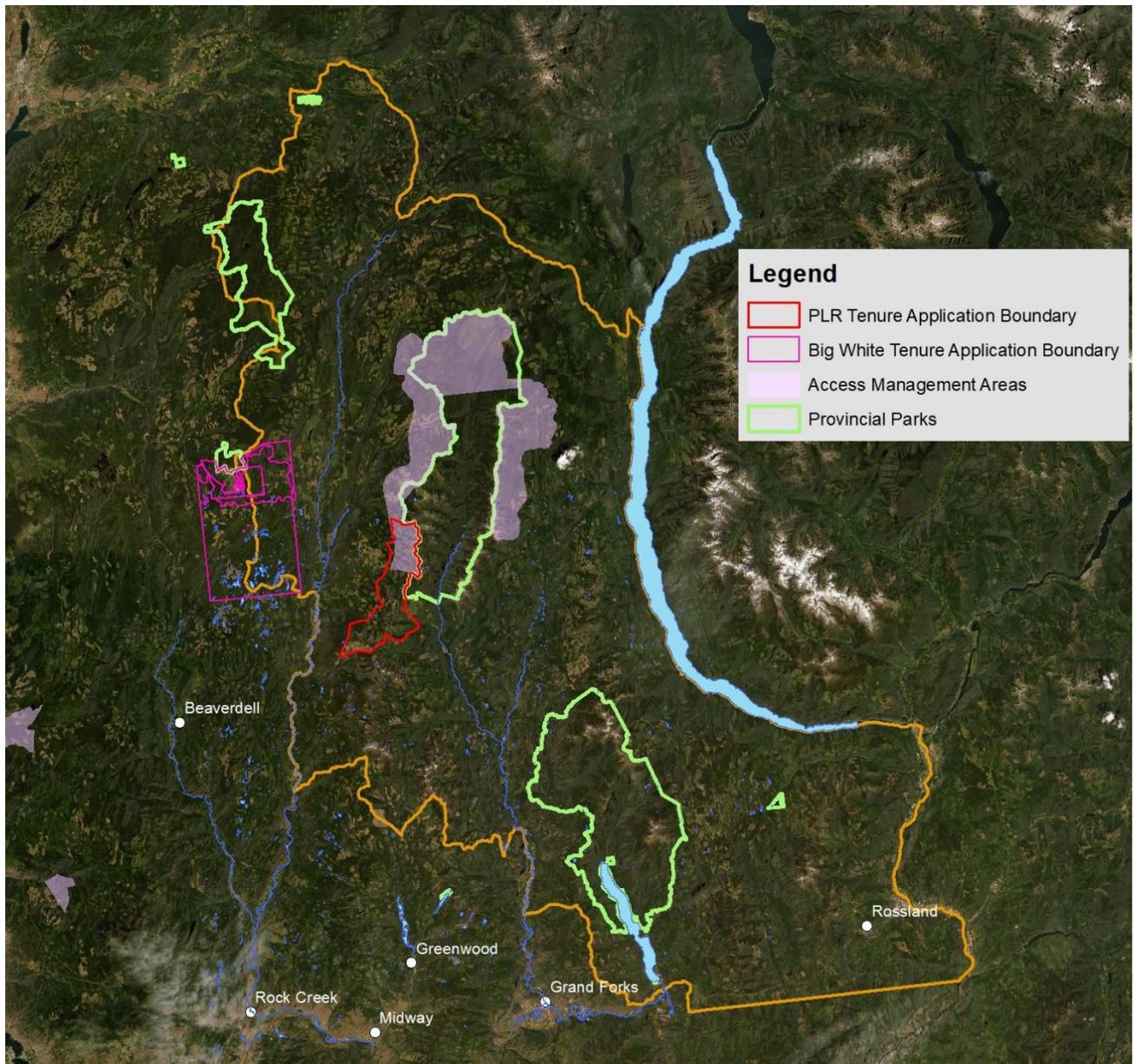


Figure 1. Map shows the location of the proposed Tenure Boundary (red) for the Powder Renegade Lodge and Cat-skiing Operation adjacent to the western boundary of Granby Provincial Park.

High Elevation Ecosystem Values

The western border of the tenure is at the height of land adjacent to the Granby Provincial Park. High elevation ecosystems are limited in the Boundary region and contribute to the unique and diverse character of the Kettle River Watershed.

There is an occurrence report of Whitebark Pine on Mt Noren within the proposed cat skiing tenure area. Associated comments recommend additional inventory required although no further inventory records were found. It is possible Whitebark Pine occurs in other sections of the ridgeline and it is not

documented. This tree is listed as Endangered in SARA and by COSEWIC (committee on the status of endangered wildlife in Canada).

Ridgeline developments must be carefully considered as they cause damage to fragile alpine vegetation and soils. Commercial and recreational developments, such as, communication towers, catskiing, backcountry skiing, snowmobiling, backcountry lodges are all identified as threats to the Whitebark Pine ecosystem (Environment and Climate Change Canada 2017).

Grizzly Bears

The Kettle Granby Grizzly Bear is a threatened population and has been managed for recovery for the last 2 decades. The proposed tenure area overlaps with known high quality grizzly bear habitat. High quality grizzly bear habitat is limited in the Kettle Granby Grizzly Bear Population Unit. The northern 1/3 of the tenure area is within an access management area closed to motorized vehicles from November 1st to April 30th to protect grizzly bear habitat. The recent population inventory (Mowatt et al 2017) estimated 87 individuals in the population unit with 30% of those having most of their home ranges in Provincial Parks. Lamb et al (2018) recently published work showing how management actions taken over the last 2 decades have increased bear density in certain area of the KGGBPU. These actions include motorized vehicle access management areas even in areas with higher density roads. Management has enacted road closures since 1985 to protect high alpine habitats in the Boundary region. Wielgus and Vernier (2003) have shown types of road closures or road restrictions in an area were important in influencing grizzly bear use of areas near roads.

The recreational activities of this commercial venture are associated with winter when grizzly bears are denning. However, the initial construction phase will increase human presence in the area during seasons when grizzly bears will be going about other life requisites. In addition, the lodge and facilities will be occupied year- round by a custodian and will decrease the foraging suitability in the vicinity. Even though all mitigation measure may be taken to reduce human-bear conflict the human footprint will change the suitability of the area for grizzly bears.

The proponent determined that the lodge site was not in high or moderate early spring habitat. The applicants have identified they will select the site based on least disturbance to habitat. Figure 2 shows a map of the lodge location and estimates where the lodge will be, based on UTM locations taken from the PRL Management Plan overtop habitat suitability mapping (Gyug 2005). The habitat suitability/effectiveness modelling identifies habitat based on a 1 to 6 scale with 1 being the highest quality. There is limited high-quality habitat in the KGGBPU. Before any adjustments for habitat effectiveness there is only 389 hectares or 0.06% of habitat classed as 1 in the entire GBPU for early spring habitat. It is similar across all seasons. Classes rated 2 are certainly considered high quality habitat and even 3. In Figure 3 below you can see how limited high habitat suitability types are in the area.

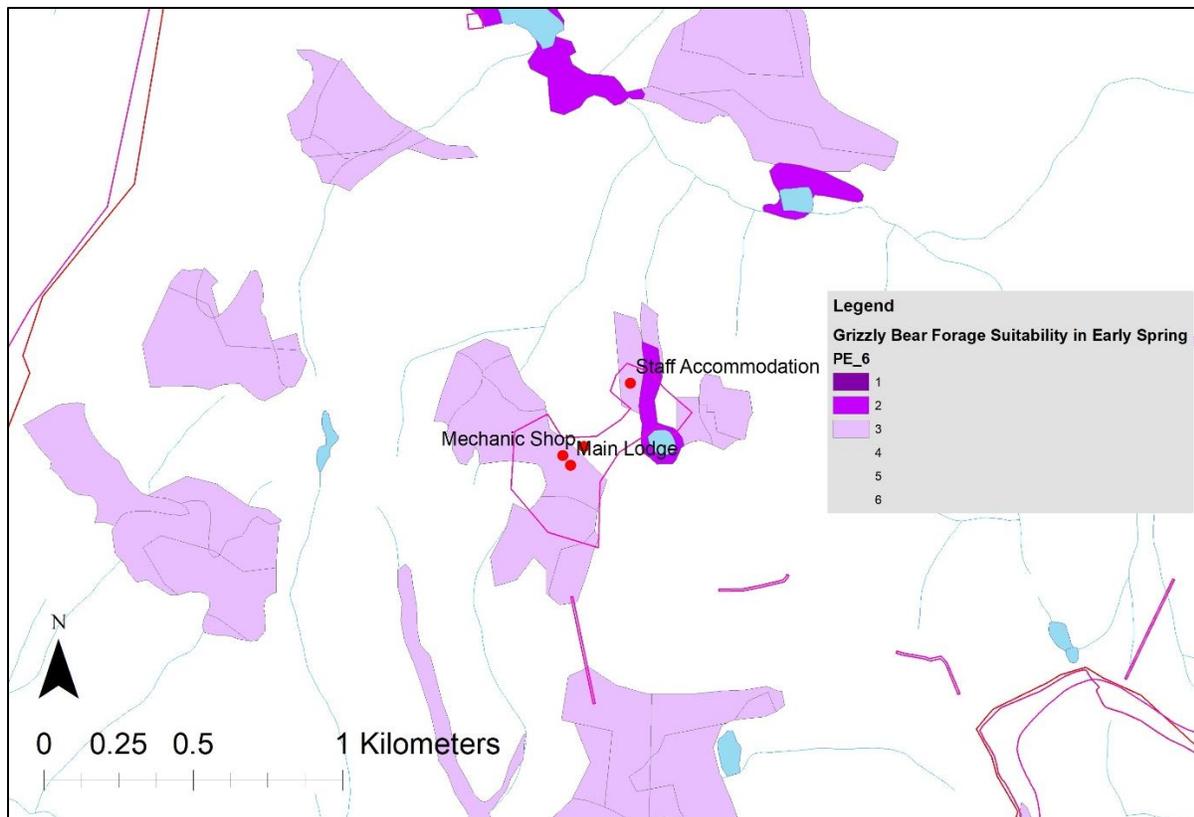


Figure 2. Forage suitability in the vicinity of the proposed backcountry lodge location and high-quality early spring habitat. Class # 1 is the highest quality and not found in the vicinity of the lodge. Class 2 and 3 considered high forage suitability in the vicinity of the lodge (Habitat Suitability Mapping Gyug 2005).

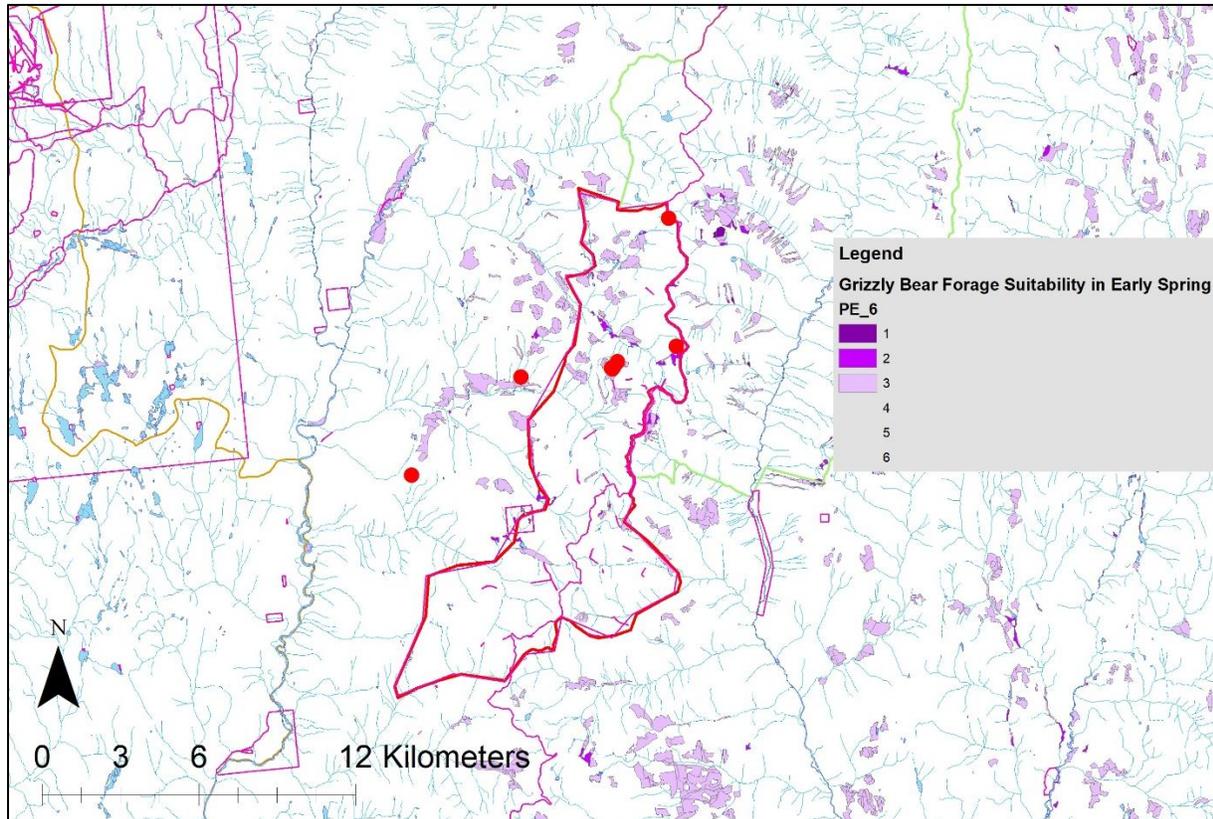


Figure 3. Less than 1% is identified as Early Spring Class 1 forage suitability in the whole Kettle Granby Grizzly Bear Population. Map shows the tenured area and areas identified as Early Spring Class 2 and 3 forage suitability to get a picture of relative availability and importance of early spring habitat to grizzly bears in the area.

There is cause for concern regarding disturbance of denning bears in the area. There is little information regarding denning habitat for grizzly bears in the southern interior of BC. Denning habitat was not identified in the 2005 habitat suitability project (Gyug 2005). However, Gyug did identify that, in general, denning habitat in the area is likely to be moderate to steep north and east-facing (leeward) large slopes or in gullies between 1500 and 2000 m elevation. Gyug identified 2 records of grizzly bear dens in the 1997 population inventory. One of these dens was on the steep north-facing slope south of Cochrane Creek in the ESSFdc1 at about 1800 m elevation (Gyug 1997). Grizzly bears rarely re-use a den but usually dig a new den yearly in the same vicinity as they previously denned (IGBC 1987). Both population inventories (1997 and 2015) confirmed higher densities and numbers in the vicinity of this area. To be cautious about this critical life stage one should assume the area is within hibernating habitat due to historical observations and the density of bears in the vicinity, and places hibernating habitat within the tenure.

Denning habitat, early spring and late fall feeding grounds have been identified as key issues of concern for grizzly bears when addressing commercial recreation impacts (Harper and Eastman 2000). They recommended preventing any major developments on or near critical habitat and locate and design facilities to minimize the risk of bear/human encounters and to limit helicopter altitudes to a minimum

of 300 m over designated Grizzly Bear habitats. Disrupting unknown den sites could have negative impacts to bears, specifically sows with cubs and might displace future denning habitat (Linnel 2000).

The Gable Mountain area in the south portion of the tenure was identified by Mowatt et al. (2017) as a priority to manage for connectivity to other sub-populations and to increase bear density and distribution by implementing access closures.

The Kootenay-Boundary Higher Level Land Use Plan identifies the area as a connectivity corridor (see Figure 4).

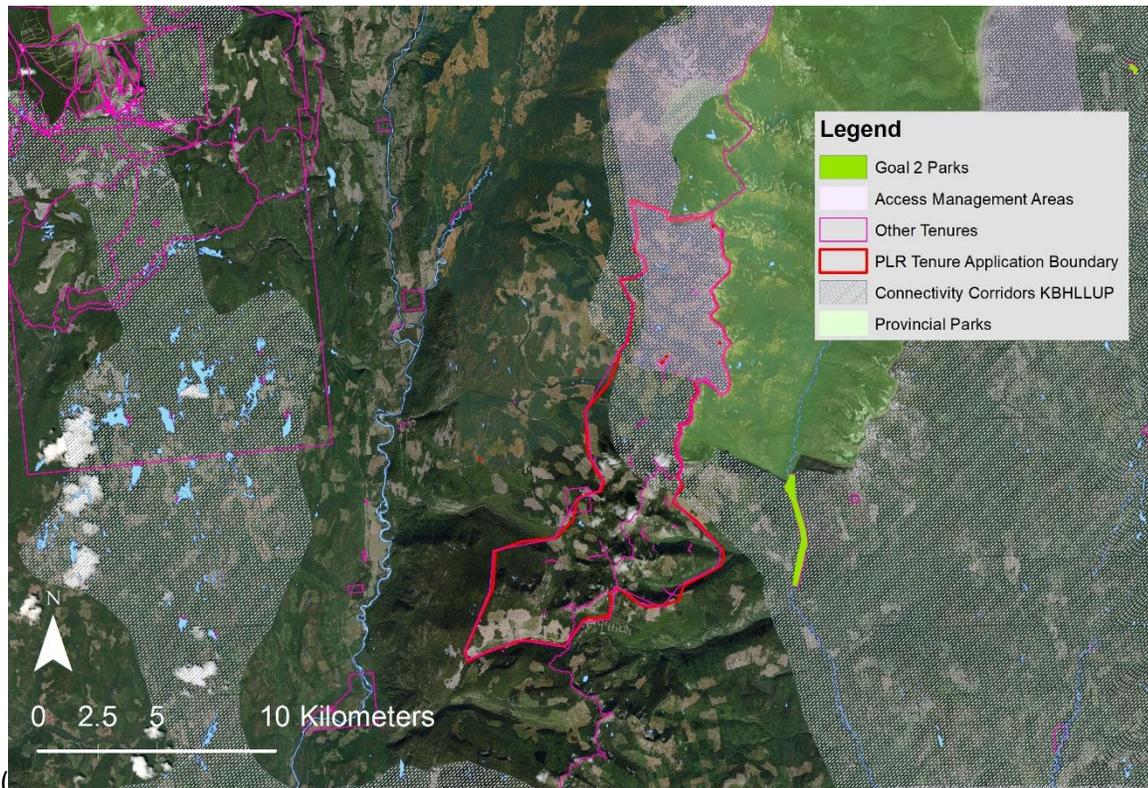


Figure 4. Kootenay Boundary Higher Level Land Use Plan identifies connectivity corridors adjacent to Granby Provincial Park.

Winter is a critical time for other carnivores. Displacement and loss of habitat for Lynx and Wolverine as they avoid human activities highlights winter range as a key concern around commercial backcountry recreation (Harper and Eastman 2000). In late winter, wolverines have litters in dens above the timberline in same type of subalpine cirques that snowmobilers seek (Hansen 2000). Females and kits are extremely vulnerable to human disturbance and will abandon den sites if disturbed (Magoun and Copeland 1998). Recommendations indicate human recreational activities should be prevented within 2000 meters of predicted denning habitats from January to May; helicopter flights and landings, and snowmobile activity near den areas should be avoided (Harper and Eastman 2000). They also recommend that facility development and high levels of human activity identified in critical habitats at other times of the years should be prevented. Dens in Idaho have been characterized as rocky sites, such

as north-facing boulder talus or subalpine cirques (USDI Fish and Wildlife Service 2013a), while Copeland et al. (2010) found that female wolverines also showed a preference for denning in habitats that had persistent spring snow cover at least five of seven years. Back country skiing is considered a moderate risk to denning carnivores like wolverines and grizzly bears but using snowmobiles and cat-skiing machines increase that risk to very high (Harper and Eastman 2000). Heinemeyer et al (2019) found wolverines avoided areas (in a gradient) from motorized to non motorized back country recreation in the winter and suggests indirect habitat loss should be a concern. Heinemeyer et al. (2017) suggest significant habitat degradation to reproductive wolverine females during denning season should be of concern within landscapes of higher levels of winter recreation and climate change may contribute to this stressor with disappearing snow packs. In the southern Rocky Mountains lynx showed an avoidance to areas with motorized recreation (Squires et al 2019).

There is a small population of mountain goats in the Kettle Granby and sightings data confirms they are in the vicinity (2km) of the eastern boundary of the tenure (mountain goat surveys 2006-2011). There is no ungulate winter range within the proposed tenured area. The ungulate winter range to the south of the tenure is approximately 2 km in distance (see Figure 5). Harper and Eastman (2000) suggest a 2 km buffer to wintering mountain goats for helicopters flying in the vicinity.

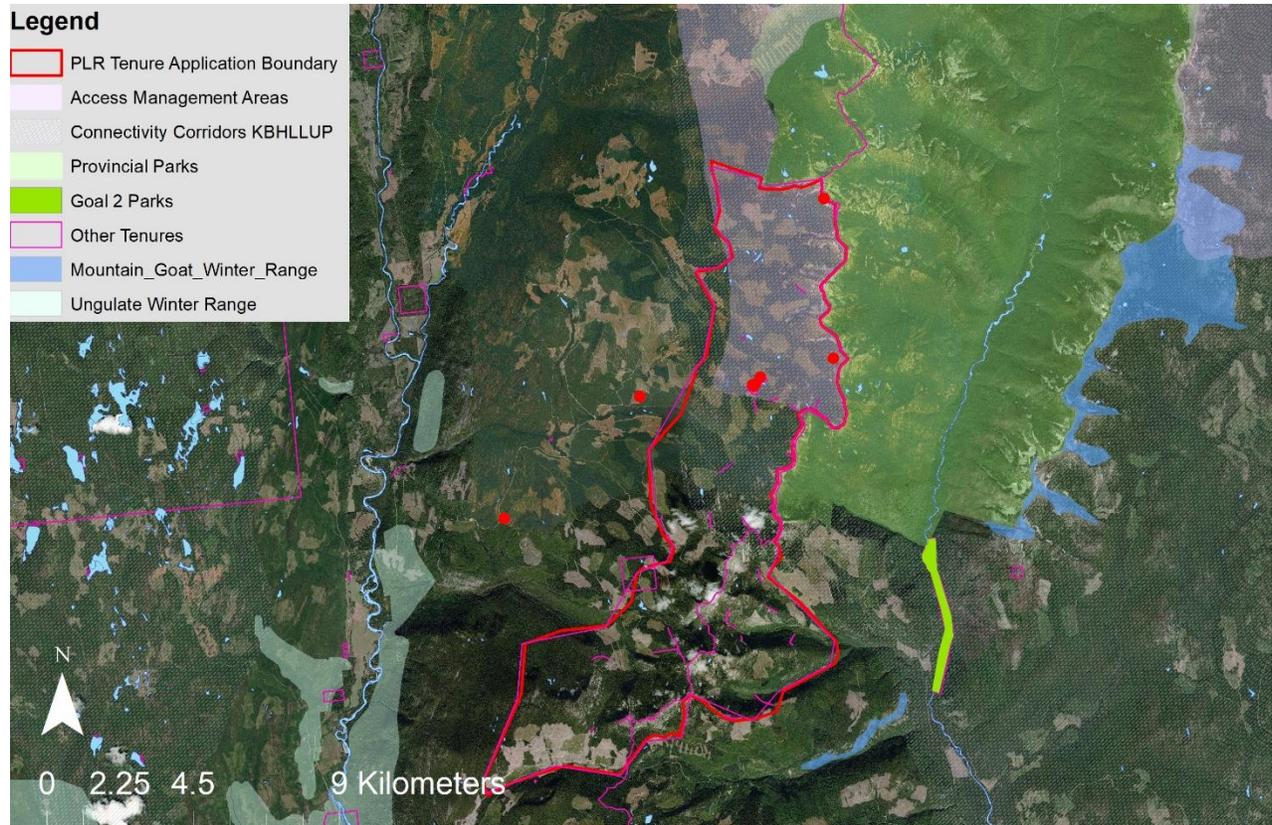


Figure 5. Figure shows Ungulate Winter range and Mountain Goat Winter Range in the vicinity of the proposed Powder Renegade Cat-skiing Operation.

Cumulative Impacts

Other development and human activity in the area must also be considered. There is a guide outfitting cabin tenure application in the close vicinity (~1.3 km) and there is the current tenure application for a major expansion by Big White just west of the proposed PLR tenure. The local snowmobiling community is expanding further into backcountry with infrastructure in place, i.e. cabins. The local ATV group is also a strong group that has come out with trail guides to ATV trails in the Boundary. Backcountry recreation is getting easier to accomplish with new equipment and machines. Commercial tenures in sensitive areas should be carefully considered. Climate Change compounds all these issues and must be considered in land use decisions especially in sensitive high elevation areas.

Recommendations:

Encourage public awareness and provide information on present and future development proposals in the Boundary, including this commercial tenure application by Powder Renegade.

Request a moratorium on any high elevation commercial developments in the Boundary that include sensitive environments and species susceptible to human activity and impacts from climate change.

Encourage stewardship approach to include high elevation habitat in the Granby Wilderness Society's strategies and action plans.

Inventory for Whitebark Pine habitat throughout the Granby Provincial Park and adjacent areas.

Continue to urge management directives that encourage the recovery of the Kettle Granby Grizzly Bear Population.

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Regarding:
Powder Renegade Lodge and Cat Ski Operation:
Crown Land Files 4406147, 4406148, 4406149
Application for Tenure

14 January 2021

Submitted by:
Dr. Brian L. Horejsi,
Speak Up For Wildlife Foundation, Penticton, B.C.

"When you are studying any matter, or considering any philosophy, ask yourself only what are the facts and what is the truth that the facts bear out. Never let yourself be diverted either by what you wish to believe, or by what you think would have beneficial social effects if it were believed. But look only, and solely, at what are the facts"
- Bertrand Russell (1872 - 1970)

We request you

REJECT OUTRIGHT THE POWDER RENEGADE APPLICATION

- The basis for such a decision is *not arbitrary*; it is justified by the following;
1. the ecosystem has suffered extensive ecological damage from a long history of largely uncontrolled industrial exploitation,
 2. lynx, wolverine, and grizzly bear populations are physically and genetically isolated and endangered and do not have adequate regulatory protection,
 3. ecosystem dynamics have been dramatically altered by extensive ecosystem manipulation, including fragmentation and degradation by an overwhelming industrial road system, a massive logging program, livestock grazing and hunting and trapping, and
 4. surviving wildlife populations are now relegated to marginal habitat.
- Further
5. the full consequences and details of the cumulative assault on the ecological integrity of this landscape have never been exposed through environmental impact assessment, and they have
 6. never been revealed to the taxpayers and citizens of B.C, and

7. there is a ***common law obligation*** by civil servants and government, part of a broad **PUBLIC TRUST DOCTRINE**, to “do the right thing” to protect public land and wildlife “held in trust for the people” by government, who are expected to act as trustees on behalf of all citizens of British Columbia.

WILL A HIDDEN AGENDA make Powder Renegade even more destructive?

There is not a single winter focused resort in western North America that has not realized that economic viability is heavily dependent upon expanding operations to a year round basis. Further, many are adding yearlong residential development.

With global climate change pounding down the door known as “business as usual” (see: Sleeper and 2012, CNBC News 2019) – in some cases already seriously impacting operations and profitability – financial survival for owners is pressuring governments to approve year long operational expansion.

Should there be doubt in your mind, simply look a little to the west, at Big White Resort, which now is asking for a major expansion involving significant decision making control (tenure) of public land that would consume an additional 6000 ha of wildlife habitat.

The goal? It’s almost always to maximize revenue. And how better to do that than add summer and shoulder season use, including extensive mountain biking trails, golf courses, summer residential development, and a whole host of services – like restaurants and food / refuse disposal – to accommodate summer users.

THE EVIDENCE:

Below we present some of the reasons – the evidence – that supports your decision to reject outright the Powder Renegade application, at least until a legitimate environmental impact Assessment confirms or rejects our position that it cannot proceed!

FAILURE TO ASSESS AND EXPOSE ADVANCED STATE OF ECOLOGICAL DEGRADATION

An essential component of any competent Environment Impact Assessment accounts for the direct and indirect effects of an action – like the proposed Powder Renegade Tenure – on wildlife and it’s critical habitat, together with the effects of any other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline should

include the past and present impacts of all government or private sector actions and other human activities in the Granby Park area.

The Granby Kettle landscape has been subjected to cumulative effects from unrelenting, largely unmanaged industrial scale logging, road building, hunting, and recreational exploitation for 40 years but Powder Renegade largely ignores these dramatic incremental changes in the local environment.

When I say “unmanaged” I refer to the near total absence of regulatory measures (see footnote one, above) to protect all other ecological, social and economic values on this public land, including watersheds, biological diversity, threatened and endangered wildlife populations, view-scapes, and failure to plan and implement ecologically secure land use measures that complement maintaining the ecological integrity of the Granby Protected Area.

Its difficult to know how to address the intent or actions of a company or individuals when they superficially appear to recognize that an ecosystem has been damaged by human overuse but then propose to further that damage.

Its difficult to know how to address the intent or actions of a company or individuals when they superficially appear to recognize that an ecosystem has been damaged by human overuse but then propose to further that damage. I conclude they are either insensitive and indifferent to environmental value or simply so poorly informed that they fail to understand the damage they propose to inflict on what is already a state of advanced ecological dysfunction. This appear to encapsulate the overarching philosophy behind the Powder Renegade application (see their website).

Distrust of government managers; it should come as no surprise that making obvious exceptions for some users by failing to apply management standards fairly or across the board , elicit complaints initially, and then foster mistrust of the process though which government organizations, like FLNRO and BCREC and Ministry of

Environment, make decisions and apply management. This distrust, which at its extreme generates contempt – spreads from government ministries to individuals within those ministries.

A perfect example is the Powder Renegade application to run over-snow machines daily, releasing dozens of human users, on landscapes buffering Granby Park which is *presumably managed as a protected area*; additionally, the Powder Renegade application would violate the No-vehicle access closure placed on part of the landscape by allowing over snow machines to run freely in a landscape that is presumed to be free of vehicles by virtue of the area closure. These are direct and blatant contradictions of citizen and government intent and practice to protect the Granby Park region; they breed distrust amongst citizens, land users, and activists.

When biodiversity value zones were first applied to landscapes in the Granby area (under the Forest Practices Code, several decades ago) the area west of Granby park was designated HIGH biodiversity value! Political interference with this biological designation by the (then) Ministry of Forests in order to facilitate logging

old growth trees in this HIGH value forest severely compromised the ecological value of this landscape and its capacity to complement viability of wildlife populations depending upon Granby park.

Powder Renegade is proposing to “pile on” to this advanced state of ecological damage, well before the damage has healed and decades before the regions historical ecological value can be recovered.

The Granby regional landscape has been severely impacted by intensive logging and road building; forest cover is now only a vague illusion of what natural forest cover and diversity was 40 or 50 years ago.(See the Boundary Alliance website for a visual of this graphic reality). These intensive industrial activities have directly produced the wildlife and biodiversity depletion deficit the region now suffers from.

Rubbing salt in the wound! To further rub salt in the wound, Powder Renegade proposes to cut trees and other (shrub) vegetation for a snowmobile trail network, build new roads, and clear openings for helicopter landings and for their permanent lodge. If there can ever be a case of the “final straw on the camels back” this has to be one of them! Powder Renegade proposes to impose further vegetation destruction on an already drastically damaged vegetation landscape!

Had the province of B.C. completed an honest professional environmental impact assessment of the ecological viability and intactness of this landscape, this final “coup de grace” (the Power Renegade application) would never have advanced to this stage of application, and it stands as one of the glaring deficiencies in the regulatory process that has exposed B.C. public lands to such advanced stages of ecological degradation.

The Power Renegade application should never have advanced to this stage of application, and it stands as one of the glaring deficiencies in the regulatory process that has exposed B.C. public lands to such advanced stages of ecological degradation.

NEXT ? AGGRESSIVE USE OF POWERED OVER-SNOW BIKES

Another serious threat to the regions wildlife is ***the probable appearance*** – invasion – of fat tire over-snow mountain bikes, and not just human powered ones, but the latest thrill craft version of electric bikes. These motorized vehicles are capable of high speed and great distance movements, expanding the reach of motorized invasion of wildlife habitat and increasing the likelihood of rapid and

close approach to wild animals with subsequent consequences for harassment , flight behavior and alienation of habitat.

“PILING ON” WINTER IMPACTS

Another hidden aspect of the Powder Renegade application is the likelihood that over-snow mountain bikers and skiers will be hitched to snowmobiles (skijoring) for

- a) just the “plain” thrills associated with speed , and
- b) driven to distant reaches of the landscape and then released to bike or ski back to the lodge or pick up point!

The potential for this to drastically increase the number of machines and people on the landscape, and subsequently the spatial footprint of the Powder Renegade enterprise - including on the boundaries of Granby PA – and including the high likely-hood that some of these people will violate the “Protected area” landscape – have not been revealed by Powder Renegade but are almost surely to evolve as part of the use should the application be approved.

It is unclear how intensive Powder Renegade will employ helicopters in this already damaged landscape, or for that matter, if, and how frequently, they will use helicopters to distribute snowmachine, snow bike and ski users throughout the landscape. The potential for destruction of wildlife security and habitat use, and for the physical and physiological well being of animals, is immense.

NOISE POLLUTION WILL DOMINATE THE LANDSCAPE

Noise is defined as any sound that an animal associates with a threat either from a potential predators or pursuit by a live subject or machine that causes doubt or fear.

It is too often, and inaccurately, thought that bears are handicapped by poor hearing. Evidence suggests otherwise. Polar Bears studied in April and May, times of the year that grizzly bears in the Granby region will already be active, first showed a behavioral response (alert posture) to snowmobiles at 1.14 km, and in those cases, began a retreat from the sound at 843 m. Grizzly bears in the Granby area have a partial screening advantage of forest stands which will incrementally reduce the travel of sounds, but they cannot escape the noise that over-snow machines (or road bound wheeled vehicles) will impose on the landscape.

Snowcats and snowmobiles emit sounds, categorized by the American Academy of Audiology (for human ears), as loud to very loud, these being sounds at or above 70 dbA. The sounds from these “standard” machines are in the upper frequency range of 1100+ Hz.

We are deeply skeptical that Powder Renegade – should you err and grant them tenure – will not shortly introduce alternate winter recreation activities, including versions of over-snow play machines that resemble tracked motor bikes; these machines are known to produce even greater levels of noise pollution.

In confined quarters, like the valleys in which Powder Renegade proposes to run snowcat ferry services, sounds will reverberate from side to side; any advantage that forest screening might provide for reducing the sounds of machines will be minimized as terrain amplifies the noise. Entire valleys will become noise “containers”; the victims will be numerous – lynx, wolverines, small mammals, birds, humans seeking solitude and associated peace and quiet, and yes, grizzly and black bears as they prepare for and exit winter dens.

The reverberation of sound from side to side in incised terrain like that in the Granby Park region aggravates the threat to wildlife (bears included) because the “bouncing” effect of sound makes it difficult for an animal to attribute direction and distance to the source of the sound, causing them to retreat earlier and making a valley a “boom box” that will be perceived by a bear (or any animal) as unsafe “because the sound is everywhere”!

The severely clearcut status of the forest cover in the Granby area ¹ has a significant negative impact on the capacity of forests to dampen or suppress sound, which impairs the regions ability to provide security for wildlife. Much of the Granby area that would be impacted by the Powder Renegade tenure is today analogous to open terrain landscape and soundscape; sound will consequently travel further and penetrate more of the surrounding area!

“In recent years, manufacturers of snowmobiles and other over show vehicles have consistently been increasing the power of the machines, making them able to navigate steeper terrain and deeper snow. This trend in increased power has changed the sport, allowing for much farther access into the backcountry” ²

Further, todays machines are capable of rapidly scaling ridge top elevations, like those separating the Granby Protected Area from the Powder Renegade tenure area proposed for the Parks west flank.

This trend in increased machine power and thus increased geographic scope of over snow vehicle activity exacerbates the impacts of these machines on the environment, wildlife, and other recreationists.

It will also diminish the ecological and social value of the Granby Protected Area!

¹ For a very clear picture of this advanced sate of forest fragmentation and degradation, see maps on the Boundary Environmental Alliance website at https://www.boundaryalliance.org/ba_033.htm

² This statement is largely copied from a legal challenge of US Forest Service failure to adequately complete environmental impact assessment of over snow vehicle use on public land in Idaho. [Case 1:17-cv-00376-CWD Document 6 Filed 11/08/17.](#)

INDUSTRIAL SCALE RECREATION DEGRADES SOCIALLY VALUABLE ECOLOGICAL FEATURES.

Powder Renegade: A THREAT TO THE ENDANGERED GRANBY GRIZZLY POPULATION

Citizens and Conservation specialists of B.C. have every reason to fear for the future of the endangered Granby Grizzly Bear population.

There may be as few as 40 resident grizzly bears in the Granby population, although one government estimate places the possible number as high as 70 (Lamb et al. 2019). At these low numbers, differences in estimates still do not put the number of bears high enough to biologically viable even in the near future. What matters is the populations continued existence, in the face of climate change and steady increases in human population and demands for consumption, is hanging by the “skin of its teeth”. We all know what that amounts to.

About one half of these bears - between 20 and 35 - are females. Amongst these, approximately one third (1/3) – 7 to 10 - may be adult females that potentially participate annually in breeding and reproduction efforts. These bears represent what is known as the *Effective Population size*; the future of the entire population is “resting on their shoulders”, dependent on their success in producing surviving young.

The death of even one of these adult females, or a combination of ecosystem and human pressures that prevent even one of them from successfully producing young, will result in population decline.

To contribute to the next generation of bears, their offspring must survive at least 6 years (first breeding, optimistically speaking, at 5 years of age, +1 year to cub birth) wherein they might begin to participate in reproduction efforts.

Simply put, feeding and moving in today's industrially fragmented and degraded landscape is more overall work, more difficult work, and more dangerous work for a grizzly

Grizzly bears literally “hang on” to existence in the Granby region solely because of the security provided by the Granby and Gladstone Protected areas.

But they cannot and do not subsist only within these alleged protected areas. Grizzly (and black) bears move extensively within home ranges often exceeding several hundred square kilometres in size. They do so to seek forage and security (from all form of threats, which in today's world amount largely to human threats).

The Granby region was historically premium grizzly bear range, initially because it was productive of grizzly bear foods which consist largely of green vegetation, roots and berries. Favorable feeding sites are, today, fewer in number, and often separated by unproductive and unsafe industrial landscapes. Habitat mapping reveals that the Powder Renegade tenure overlaps a considerable number of high value feeding sites (Gyug and Hamilton 2007), a situation that will result in either displacement of bears, or conflict with them. Simply put, feeding and

moving in today's industrially fragmented and degraded Granby regional landscape is more overall work, more difficult work, and more dangerous work for grizzly bears.

There appear to be relatively few avalanche slopes on the west side of the Granby PA, but the slopes that do exist are suitable for grizzly and black bear denning. This presents two sources of conflict between skiers, snowcats and bears (both grizzly and black).

1. It is uncommon, but there exists the possibility that over-snow machines will trigger avalanches that can lock bears in their den (Hildebrand 2000), and

2. Bears that attempt to den in the Powder Renegade zone of activity will be discouraged from doing so, and may be displaced from their den by machines and human activity nearby (Linnel et al. 2000).

**Reckless ? :
Approving the
Powder Renegade
application in the
currently
inadequate
management and
conservation
effort surrounding
the threatened -
endangered
grizzly bear
population would
be reckless!**

We strongly urge you to *consider how precarious the existing and future status of the Granby Grizzly bear population is;*

- > there are no population management standards or goals
- > there are NO standards for measuring recovery of this population ³
- > there is NO legal recovery plan in place ⁴

PHYSICAL IMPACT OF SNOWCATS and snowmobiles on ANIMAL MOVEMENT

It is common knowledge that over snow machines compress snow cover when they travel over and through it. The environmental implications of this physical change in snow cover are numerous, and include;

³ The Forest Practices Board investigated the state of habitat protection for grizzly bears – the reader could substitute any large or medium size animal here – and concludes that government and forest license holders failed completely to finalize any plans or implement any actions to promote habitat protection; in other words, habitat protection is nonexistent (FPB 2017).

Regarding protecting Granby Park, the Auditor General of B.C. (2010) points out, first, that “Ecological integrity of parks and protected areas is integral to the quality of life in British Columbia” but then condemns BC Parks for “not successfully meeting this goal” of protection.

⁴ Contrast this with the recovery plan for grizzly bears in the U.S., legally entrenched in 1982.

1. the collapse of subnivean (below-snow air and movement spaces) environments, reducing habitat for small mammals that occupy these spaces and survive because they stay live primarily below snow cover, which provides security and thermal protection.

2. Hardening of the snow such that animals, and humans, are able to travel over snow whose depth and softness would inhibit, if not prohibit, their movement had it not been compacted.

VULNERABLE LYNX POPULATION

The consequences of this physical change have ecological and behavioral consequences for both large and small wild animals. One of the more complex relationships that over-snow machine tracks initiate is the interaction between lynx and coyotes and hare predation (Bunnell et al. 2006).

The Granby is still occupied by a sparse population of Canada Lynx. This remnant population may be spatially isolated from other populations and is likely to constitute a ***Distinct population segment***⁵ that warrants special conservation measures by land and wildlife managers.

Lynx are heavily dependent upon the abundance of and access to snowshoe hares for food. They have evolved very low foot weight loads that allow them to travel quickly over deep snow with relative ease and allows them to pursue and capture hares in deep snow conditions.

Bobcats are also present in the area⁶, although they are most likely to be found at lower elevations. They can, like coyotes, be expected to exploit snowcat and snowmobile (as well as ski) trails to extend their occupation of habitat that would normally be favored by lynx. Lynx can be displaced by Bobcats, further threatening local lynx population viability (Scully et al. 2018).

Coyotes, on the other hand, have not evolved deep snow travel adaptations. But, when over-snow machine tracks harden the snow, coyotes have been observed, throughout their range, to travel these “roads” and invade habitats they would not otherwise be able to negotiate.

The balance of occupation and subsequent abundance and viability of these populations of lynx, bobcats and coyotes is already been compromised by the intense industrial damage the Granby region has been subjected to. As a result, the interaction dynamics of these three species will be further unbalanced and are likely to adversely affect the viability of the remnant lynx population.

Apps et al. (2010) conclude “that restrictions placed on snowmobiles in lynx

⁵ Indicates the population is genetically different from other populations by virtue of, first, physical or human barriers such as major roads, vast agricultural areas, industrial development and human occupation of the landscape. Secondly, this leads to genetic differences and unique genetic characteristics. These are often characteristics that are recognized by some regulators to warrant special management actions.

⁶ A recent study found both bobcats and lynx are found in the area, but it drew no conclusions regarding population density or viability (Gooliaff et al. 2018).

conservation areas by land management agencies because of the potential impacts of coyotes may be appropriate.”

ANOTHER BRICK ON THE CAMELS BACK?

INFLECTING HARM ON THIS REMNANT WOLVERINE POPULATION

Does that mean we “push it over the edge” into total non-function by throwing another brick on the camels already broken back?

The Granby region as a wildlife ecosystem is a mere shadow of its historical vitality.

Does that mean we “push it over the edge” into total non-function by throwing another brick on the camels already broken back?

Recent estimates of wolverine presence in the region indicate there MIGHT be two (2) to four (4) wolverines surviving in the region around Granby PA. This is one case where provincial government ministry estimates are believable (Kortello et al. 2019), given that it is almost impossible to find evidence of a population if it is near absent.

The few wolverines in the region are isolated and distant from any adjacent population in spite of their exceptional movements which, of course, *quickly become a liability in habitat carved up by humans.*

“Within home ranges, wolverine avoided all forms of winter recreation and showed increasing avoidance of areas as the amount of off-road winter recreation increased, resulting in indirect habitat loss or degradation of moderate- or high quality habitats” (Heinemeyer et al. 2019).

Wolverines are known to be negatively affected by backcountry skiing (only females negatively associated); greater impact was observed in animals subjected to by helicopter skiing (both males and females negatively associated) (Krebs et al. 2007).

“Wolverines avoided areas with both motorized and non-motorized backcountry winter recreation, with a stronger response to off-road than road-based recreation. Wolverine responses increased with increasing levels of backcountry winter recreation. Because motorized recreation had a higher intensity and larger footprint than non-motorized recreation in most wolverine home ranges, motorized backcountry recreation resulted in more substantial wolverine habitat loss than did non-motorized recreation” (Heinemeyer et al. 2019).

Loading Powder Renegade on top of wolverine habitat is the equivalent of knowingly ***“nailing the coffin lid” on the extinction of Granby wolverines.***

The essence of wolverine survival is big space and high habitat security; Space is limited in the Granby Park ecosystem and for a long distance in either direction (excepting SE toward Gladstone Park) but maintaining the ecological security of Granby Park is a “no brainer” in the context of promoting wolverine occupation of the region.

INVASION OF EXISTING ZONE LIMITING VEHICLE ACCESS

The west side of Granby Park is one of the very few areas in B.C. where the government has demonstrated the will to impose limits on vehicle access (albeit very late in the ecosystem degradation process). While some jurisdictions have travel management plans ⁷ that apply to all public lands and confine or eliminate vehicle use of lands to protect wildlife values, B.C.s land and wildlife management ministries have been tentative in their application of measures to broadly control vehicle use.

Powder Renegade will impose over-snow machine use, along with regular vehicle traffic, in the vehicle restricted zone and open the door to greater human use, including year long use associated with the proposed Lodge and its maintenance.

BC wildlife managers claim that the access mgmt. zones they put in place on the northern edges of Granby Park has resulted in more bears than had those management zones not been in place (Lamb et al. 2018). Yet the Powder Renegade application will impose over-snow machine use, along with regular vehicle traffic, in the vehicle restricted zone and open the door to greater human use, including year long use associated with the proposed Lodge and its maintenance.

Rejection of the Powder Renegade application is a timely opportunity to protect public lands next to the Granby park from intensified and widespread industrial scale motorized impacts and escalated human presence.

DANGEROUS USE OF HELICOPTERS

Powder Renegade proposes to fly clients into their resorts Base Lodge, which in itself is a threat to local wildlife. Helicopter flights are an acute source of harassment and displacement for all species of wildlife even if flights are intended to be direct from Kelowna to the lodge.

But since when is flying weather perfect in the mountains?

Circling the resort for proper and safe landing conditions will take helicopters widely over the surrounding landscape; ground fog or cloud conditions will require flight approach from directions other than the west, taking these machines over or near wildlife winter ranges (particularly those of mountain goats, but also elk) and occasionally over Granby Park.

⁷ When making the decision on vehicle use, the U.S. Forest Service must minimize damage to natural resources including harassment of wildlife and avoid significant disruption of wildlife habitats, and minimize or avoid conflicts with other recreation uses, commonly known as the “minimization criteria.” The winter travel planning process must undergo public participation. These travel plans are prepared under legislation that requires management agencies to assess the environmental impact of proposed actions that significantly affect the quality of the environment.

HELICOPTER DISRUPTION AND HARASSMENT

Imagine the regular but ever changing patterns and intensity of helicopter traffic that will be controlled by a combination of weather, pilots, guides, changes in human use and wildlife presence and all this changing hourly, daily, and weekly, depending, we suggest, mostly on the whim and urgency of serving paying customers.

This “can of worms” destroys any claims that “predictability” of noise and visual impacts might be established!

Poor weather will make avoidance of wildlife by helicopters (as well as over-snow machines) – essentially impossible.

EVIDENCE RELATING TO MOUNTAIN GOAT HELICOPTER DISTURBANCE

Helicopter activity is one of the more severe human activities known to impact wild animals.

Frequent helicopter approach to mountain goats in one Alberta study (Cote 1996) revealed that 32% of the cases prompted goats to walk or run over 100m; 85% of goats reacted in some manner when a helicopter approached within 500m. In 7% of the cases helicopter approach caused the goats’ social group to disintegrate; that is a strong indication of panic! In one case an animal broke its’ leg attempting to avoid the machine.

Even at > 1500m distance helicopters cause caused goats to move more than 100m 9% of the time.

Cote et al. (2013) further reported after extended observation that “goats had a very high probability (>0.8) of being moderately and strongly disturbed (moderate: moved 10–100 m, alert for 2–10 min; strong: ran >100 m, alert for >10 min)”.

Foster and Rahe (1983) reported that 80% of 667 mountain goats in the Stikine region of BC responded to (primarily) aircraft (both fixed and rotary wing) and ground disturbance with some form of behavioral stress-response flight, with 33% of those displaying a “severe flight response” leading to displacement to cliff terrain or forest cover. Fifty-five percent of severe flight responses were observed when disturbances occurred at distances <100 m. Theirs was a short term study, but even at that they detected temporary range abandonment as a result of disturbance.

Poole and Heard (1998) observed that Mountain Goats (n = 2) monitored for 24 and 49 days with GPS collars in the Robson Valley of BC moved 70% further in the 24 hours after being surveyed by fixed-wing aircraft, than during the 24 hours before surveys.

Cadsand (2012) came to this conclusion; “Mountain goats exhibited anomalous movements in the 48 h following helicopter approaches within 2 km regardless of whether helicopters were visible”.

The stark reality of disturbance in large wild mammals, like mountain goats and bighorn sheep, has been know for decades, even though it is rarely acknowledged by regulators such as FLNRO. For example, “behavioral response does not necessarily reflect physiological response or harassment. Despite the

animals outward behavior”, it has been “reported that heart rate in bighorn sheep was significantly elevated and remained elevated as long as helicopter activity occurred in their vicinity. Up to 45 minutes was required after the disturbance was gone for heart rate to return to normal.” This same researcher reported that “behavioral response can be extremely misleading; helicopters can sensitize bighorns and can produce marked and prolonged physiological response in the absence of pronounced – or even any – behavioral reaction” (from Joslin, 1986, quoting Stemp 1983).

These are all highly relevant observations but the most damning of all are those where evidence has been gathered over a cumulative long term period.

We know that institutions, and even most people, have a very short term view of the world; after all, in the corporate or business world, such as that of Powder Renegade, having no historical perspective, or memory, ***serves immediate personal and financial interests!*** But acknowledging and understanding scientific evidence and cumulative environmental degradation is just the opposite.

The relevant observations in this case are those of Cote et al. (2013), who “found that mountain goats only very slightly habituated to helicopter flights during a period of 10–15 years of repeated helicopter traffic.”

***INTERFERENCE WITH LOCAL ELK AND MULE DEER POPULATION DYNAMICS
Will accelerate population decline in already ecologically limited
populations***

Local elk and mule deer populations winter in the Christian Valley to the west, and down elevation from, the Proposed Powder Renegade tenure lands. But to get to winter range, and to return to spring, summer and fall ranges, those animals that occupy higher elevations to the east of winter range will have to travel through the Powder Renegade land use zone.

Relatively little is known of the movement dynamics of these wildlife populations, and little information is on record describing the size of these populations.

BC Parks states that Granby Park is “valuable as habitat for grizzly bear, deer and elk”. Of course it is! It’s the only intact wildlife habitat with anywhere near its historical, or well managed levels, of habitat integrity.

Some male elk may winter on higher slopes in the immediate vicinity of Granby park, and subsequently will be subject to harassment and displacement by proposed Powder Renegade operations.

Approval of the Powder Renegade application would conflict directly with the provinces stated goal to increase mule deer populations in the Boundary Region

But the vast majority, along with mule deer, will move to lower elevations to avoid winter snows.

Local observations suggest that the mule deer population in the Granby area has been declining over recent years, and that their numbers are now low . These observations converge with those in the Provinces Kootenay-Boundary Mule deer management plan (MFLNRO 2014), which states that mule deer populations

were higher in the 1980's and early 1990's ⁸ than they presently are.

This should come as no surprise! The regional landscape has been severely degraded by industrial logging, road access density is very high, and outside of Granby Park and the vehicle limited-access zone on the north end of the Park, human use of the area, ranging from hunting, to berry picking, and including winter use, is heavy. The depletion of the mule deer population is likely one of the directly related consequences, played out over several decades, of this cumulative ecological deterioration.

Common sense, and particularly scientific evidence, demonstrates that mule deer populations like that in the Granby region will only further decline as more intense and extended industrial recreation activity, like that proposed by Powder Renegade, threaten them and "their" landscape.

Approval of the PR application would conflict directly with the provinces stated goal for increasing mule deer populations in the Boundary Region; Objective 10 is to "manage motorized vehicle access to minimize disturbance and ensure valuable mule deer habitats are protected" (p. 15)

Cumulative impacts of disturbance are widespread and generic

The scientific evidence revealing the negative impacts of human recreational, vehicle, road, and helicopter presence, along with land occupation (as in a lodge), on large and medium sized mammals and on birds, like grouse ⁹ (see Arlettaz et al. 2007), is irrefutable.

The reality of behavioral change, almost always in a negative direction, for large mammals exposed to human activity, is that these animals seek some way to compensate for the threat that humans and their activities impose on their lives and their habitat; at the top of the list are helicopter over-flights and landings, vehicles, and large numbers of human spread over a landscape, all of which animals interpret as pursuit and close approach, whether inadvertent or not.

For example a recent analysis (Gaynor et al. 2018) of 76 studies of 62 species from 6 continents revealed that human disturbance resulted in an average increase in nocturnal activity of 36%, and that large herbivores, like mountain goats, are at the greatest risk of ecological displacement.

These changes have long term impacts, taking place over years and lifetimes and generations; they expose animals to increased predation, alienation from preferential feeding areas, greater energy costs associated with limiting energy intake, and more inefficient activities due to restrictions on free access to habitat.

⁸ The report does not provide evidence or numbers demonstrating this!

⁹ They estimated that (stress hormone) faecal corticosterone metabolite concentrations in grouse increased daily by an average of 20%, which corresponds to a total increase of 60% between days 0 and 3 of the experiment displacement by winter recreation participants.

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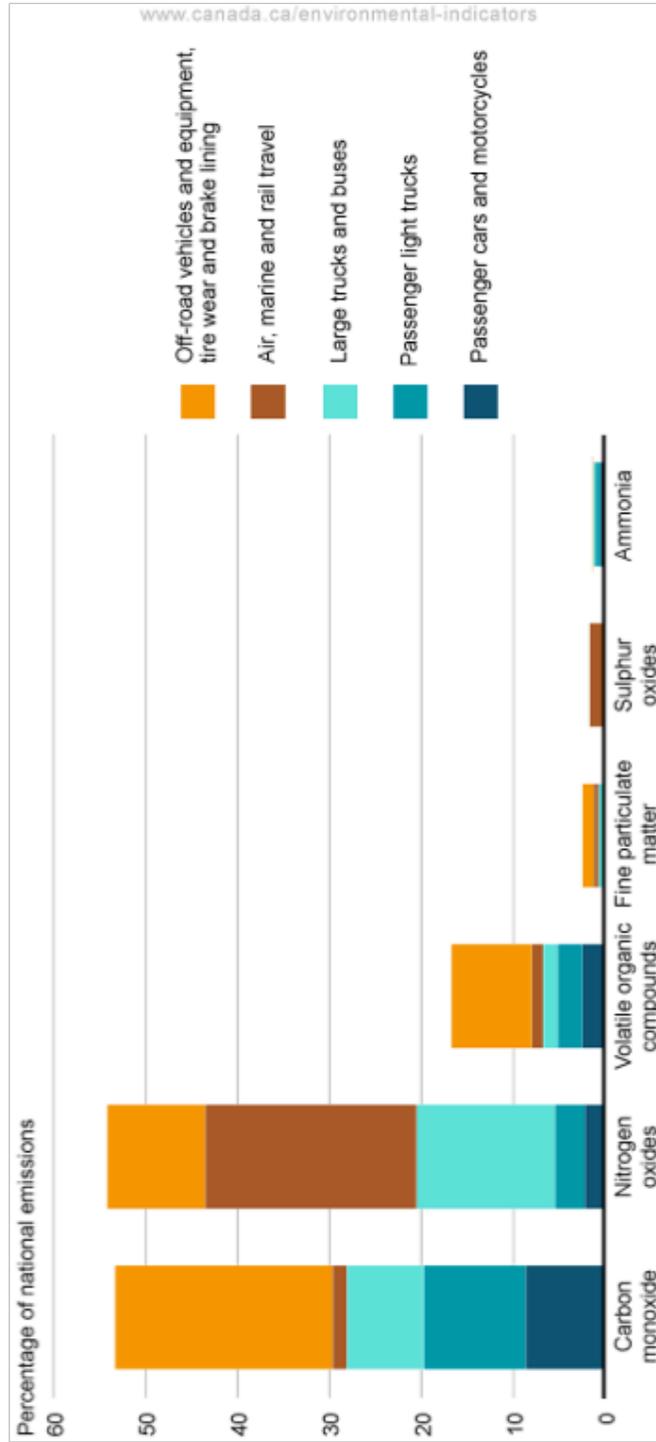
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Pollutants emissions

Off road vehicles produce a high volume of toxic emissions. These pollutants penetrate the air around ORV routes and settle onto adjacent land and water. The attached graph (*see end of this document*) from Environment Canada reveals the constituent toxic substances (keep in mind the category includes a wide range of machines, but personal-recreation ORVs are included). The Environment Canada website (accessed on 22 July 2018) also points out that “volatile organic compounds (VOCs) are carbon containing gases and vapours released into the atmosphere by natural sources and human activities. There are hundreds of VOCs that are emitted and that affect the health of Canadians and the environment. VOCs are primary precursors to the formation of ground-level ozone and particulate matter which are the main pollutants contributing to the formation of smog.”

Also from the Government of Canada website, Environmental Protection regulations, this statement: “Emissions from off-road small spark-ignition (SSI) engines contribute to air pollution, which leads to adverse impacts on human health and the environment. These adverse impacts include increased risks of various cardiovascular and respiratory outcomes, as well as damages to forest ecosystems, crops and wildlife, impaired visibility, and the soiling of surfaces.”



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Referral Number: 127018044 - 011

Reference Number: 567403

The Powder Renegade proposal for cat-skiing in the upper Kettle and Granby watersheds could significantly impact wildlife connectivity and sensitive species like grizzly bear, wolverine, and mountain goats. Granby Provincial Park is one of the few remaining unroaded areas in the Southern Monashees, both the park and surrounding areas such as the proposed tenure have a regionally significant role in providing high value wildlife habitat and facilitating wildlife movement in the Southern Monashees. The wildlife that inhabit the Kettle and Granby watersheds are already dealing with the cumulative impacts of forestry and recreation. Much of the proposal overlaps a grizzly bear recovery area and GAR order protections. These protections were put in place to recover a grizzly bear population that is threatened by the cumulative impacts of forestry and human activities. Road densities in the region exceed the safe limit for female grizzly bears, adding more roads and linear features will continue to hamper recovery efforts for this grizzly bear population.

Wolverines

Wolverines are known to abandon dens from what are typically thought to be low impact activities such as a backcountry skier getting within 200m of a den. High intensity recreation use from snow cat activities would likely render suitable habitat unusable for females who are extremely sensitive to human disturbance. A recent study illustrated that once recreational activities go beyond a critical level of usage, wolverines (particularly females) are displaced (Heinemeyer et al. 2019). This also can have reproductive costs.

Further studies have documented that wolverine density in the Columbia region is higher in protected areas, and lower outside of protected areas (Mowat et al. 2019). Wolverines in the region appear to be avoiding forest service roads and areas of intense use because of disturbance from snow machines, cat-skiing, and recreation. They are selecting for protected areas because of a lack of disturbance.

The population in the Kettle and Granby is low density and now recovering after years of trapping. Between 1985-2004 at least 15 wolverines were trapped in a twenty year period in the Kettle and Granby likely leading to a population decline (Lofroth 2007). Just like grizzly

bears in the region, the wolverine population is threatened by the cumulative impacts of habitat degradation and loss, recreation, and unsustainable levels of human caused mortality. Reducing human impacts on unprotected crown land is critical to ensuring wolverine persistence and connectivity in the Southern Monashee Mountains.

Mountain Goats

Very little information is available about mountain goats in the Kettle-Granby, but there is evidence that there is a small population that winters in the upper Granby (Gyug 2006).

Helicopter flights into and out of the lodge are a major concern for mountain goats. The Northern Wild Sheep and Goat Council recently released a best management practices document for commercial and recreational disturbance of mountain goats. The Council is made up of some of the most preeminent ungulate experts in North America. The BMP's recommend that: "Commercial or recreational disturbance activity that includes the use of light helicopters, should not occur within 1.5 – 2.0 km of winter and kidding habitats or mineral licks, depending on the local context or human safety considerations." These best management practices go much further than the provincial wildlife guidelines which are largely out of date and have not been updated in many years.

The application has not included helicopter flight routes into the proposed management plan. Recent provincial recommendations suggest a 2km flight buffer from known mountain goat habitat.

Grizzly Bears

61 percent of the Kettle Granby grizzly bear population has road densities that exceed 0.6km/km². This 0.6km/km² road density threshold is the point at which female grizzly bear survival becomes precarious and there are significant adverse effects on the population viability of grizzly bears.

In the Granby, the Province has established Wildlife Habitat Area 8-373 for the protection of the Kettle-Granby grizzly bear population, with an accompanying Government Actions Regulation Order that sets out general wildlife measures for the WHA. The GAR order specifies that road density in this area should not exceed 0.6 km/km². The province continues to fail to manage to this threshold as 61% of the habitat of the Kettle-Granby population already exceed the threshold and road densities are increasing in many areas (Forest Practices Board 2017). The current proposal fully overlaps with the WHA recovery area and the threatened Kettle Granby grizzly bear population.

The Powder Renegade proposal would add 11 kms of new road, use 49 kms of existing or deactivated forest service roads, and cut upwards of 95 km's of snow-cat roads. These roads would continue to increase road density, and significantly reduce suitable and secure habitat for the Granby Kettle grizzly bear population. Although grizzlies are denning for much of the period of operation, this project would leave a year round impact because of

the road infrastructure needed to conduct snowcat operations. These roads would further reduce the amount of suitable and core habitat for this threatened grizzly bear population. The snowcat roads would involve the removal of significant forest and would create linear features in which some roads could potentially be accessible to off-road vehicle traffic, further reducing wildlife habitat in the region. The reactivated roads would also likely continue to provide vehicle and off-road access. The proponent states that the roads would still be waterbarred. Water bars by themselves rarely keep motorized and off-road vehicle traffic out of an area.

Grizzly bears select den sites that are typically away from human disturbance and areas with minimal resource roads. While in their dens grizzly bears can be aroused easily. Disturbance during the denning period can result in fitness costs if bears become active during this period (Pigeon et al 2014). The proponent has not identified this as an issue or offered any mitigation efforts to address disturbance to hibernating bears.

The proposal should not go forward if it is a provincial and regional priority to recover the Kettle and Granby grizzly bear population. Road densities in the region exceed the safe limit for female grizzly bears. Adding more roads and linear features will continue to hamper recovery efforts for this grizzly bear population.

Vehicle Fords On Non-Fishing Bearing Streams

The proponent is proposing seven vehicle fords on non-fish bearing streams. Vehicle crossings on streams can be major sources of sediment and can significantly alter stream morphology. The proponent's proposed stream crossings are likely to be in headwater streams that are incredibly sensitive and critical for the health of downstream fisheries and streams. Proper culverts and/or bridges are necessary to ensure that vehicles are not impacting small streams and downstream water quality and quantity.

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January 14, 2021

Sharon Dailey,
Senior Authorization Specialist,
Crown Land Authorization, Kootenay Boundary Region.
sharon.dailey@gov.bc.ca.

Re: Crown Land File: 4406147, 4406148, 4406149 Powder Renegade Lodge Inc Application

Dear Ms Dailey:

We have read Powder Renegade Lodge Inc. (PRL) application for tenure on crown land abutting and extending beyond the south west side of Granby park. We are dismayed that your government agency would consider a commercial recreation tenure application in habitat of the threatened Kettle Granby grizzly bear population. In fact the BC government considered the plight of the Kettle Granby grizzlies to be sufficiently dire to have established a Wildlife Habitat Area (WHA) by Gar order 8-373 some twenty years ago. As well the government also established a motorized vehicle closure zone that majorly surrounds Granby Park. Numerous published studies have been conducted in this area regarding the effects of fragmentation, roading, and human encounters on habitat use by grizzly bears. All of them have shown that increased human presence has a negative impact on grizzly bears and other wildlife (Lamb 2018). Based on impact to the threatened Kettle Granby grizzly bear population this proposal should have been turned down before it was sent out to public review. For these reasons and others that we will identify below the Valhalla Wilderness Society opposes the granting of this tenure to PCL.

Wildlife Habitat Area Established by Gar Order 8-373

PCL's tenure application lies entirely within a Wildlife Habitat Area established by Gar order 8-373 some 20 years ago. Also 27% of the proposed tenure lies within an established motorized vehicle closure zone and this tenure would occupy 19% of this motorized closure zone. As far as I know a snocat is a motorized vehicle and two of them would be operating a minimum of 5 days a week during the winter delivering up to 24 skiers a day onto the slopes with perhaps 27% of this time within the motor vehicle closure zone. The remainder of the operating time would be in areas adjacent and close to this motorized closure zone compromising the intent that this closure zone was established for. Does your branch of government not know what other branches of government are doing? Why was MFLNRORD established if not to facilitate interagency communication?

Lodge Site

PCL has chosen a pond/lake site to be the center of their base of operations and a source for their water supply for the lodge. The shorelines of ponds and lakes are important feeding areas for grizzly bears especially in higher elevation terrain. Their proposed site is on the south side of and in the headwaters of Cochrane Creek. They have determined that the lodge site was not in high or moderate early spring habitat yet habitat suitability conducted by Gyug(2005) shows that the pond/lake is in class 2 habitat and approximately 50% of the operations base tenure is covered in Class 2 and 3 early spring habitat suitability. Class 1 is the highest class of habitat suitability out of an indexing system that ranges from 1-6. It is interesting to note that there is only 389 hectares or 0.06% of habitat classed as 1 in the entire Kettle Granby Grizzly Bear Wildlife Habitat Area for early spring habitat. This shortage of class one habitat allows for Class 2 and 3 to be considered high forage suitability and within the vicinity of the lodge (Habitat Suitability Mapping Gyug 2005). During the 1997 population inventory Gyug identified a grizzly bear den on the steep north-facing slope south of Cochrane Creek in the ESSFdc1 at about 1800 m elevation (Gyug 1997). To be cautious about this critical life stage one should assume the area is within hibernating habitat due to historical observations and the density of bears in the vicinity, and places hibernating habitat within the tenure and also within a 2000 metre range of the proposed base of operations. Also two population inventories (1997 and 2015) confirmed higher densities and numbers in the vicinity of the proposed base of operations in the headwaters of Cochrane Creek.

Given the paucity of good quality habitat in the Kettle-Granby WHA we conclude this base operations complex cannot be built without having a negative impact on grizzly bears that will force them to abandon the Cochrane Creek headwaters portion of their habitat.

Wolverines

Immediately above PCL's proposed base operations intensive use area is a large steep northerly facing talus slope. A review of the literature suggests that these northerly facing talus slopes are the preferred sites for wolverine denning (USDI Fish and Wildlife Service 2013a). The furthest extremities of PCL's base operations tenure is within 500 m of this northerly facing talus slope. Back country skiing is considered a moderate risk to denning carnivores like wolverines and grizzly bears but using snowmobiles and snow cats increase that risk to very high (Harper and Eastman 2000). Recommendations indicate human recreational activities should be prevented within 2000 meters of predicted denning habitats from January to May; helicopter flights and landings, and snowmobile activity near den areas should be avoided (Harper and Eastman 2000). It is well known that females and kits are extremely vulnerable to human disturbance and will abandon dens and sometimes kits. We recommend that the BC Govt. follow the constraints identified by the scientists and deny the tenure for the lodge and base of operations as it is located in highly sensitive wildlife habitat of two blue listed species that are vulnerable during the winter.

Ski Area

High elevation moderate to steep sloping alpine meadow land are the slopes most preferred by skiers and are the slopes most sought after to market to skiers. The high elevation means colder temperatures that maintain the powder longer and northerly to easterly slopes are more protected from solar warming which maintains the powder snow condition longer. Unfortunately these are the slopes also preferred by the grizzly bear for winter hibernation. Female grizzlies give birth during hibernation making these den sites very sensitive to disturbance. Disrupting unknown den sites could have negative impacts to bears, specifically sows with cubs and might displace future denning habitat (Linnel 2000). These types of slopes are found throughout PCL's tenure application, which if granted could have negative impacts on the Kettle Granby's recovering grizzly bear population.

Access

In order to provide this service PCL states that they would require 95 km of snowcat trails which would be approximately 12' wide which would be kept open during the operating season, 10.7 km of excavated roads and 49km of existing roads which would be permanent. All this in an area where the access management goal is to restrict access. This would mean permanent access into the headwaters of Cochrane Creek and complicate restricting access and access management goals compounding impacts on the grizzly bear population of this area.

Cumulative Impacts

The Kettle Granby watersheds are heavily impacted landscapes with road densities almost double the recommended densities to maintain large carnivores. The PRL tenure is not in isolation, Big White ski hill and community is applying for major expanded tenure within 25 km of PRL as well as a guide outfitting cabin tenure application within 1.3 km of PRL. Also the snowmobiling community is expanding further into backcountry with infrastructure such as cabins in place. In the snow free season the ATV users are getting further into the back country compounding the habitat fragmentation. All of this is being driven by the supply of relatively cheap hydrocarbons which release green house gases when burnt and compound climate change significantly.

Conclusion

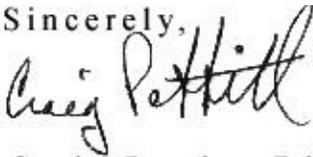
There is no question that human activities have dramatic effects on the distribution and abundance of wildlife. Increased road densities and human presence in wilderness areas have elevated human-caused mortality of grizzly bears and reduced bears' use. (Lamb 2018) Wildlife managers and the public have spent the last twenty years trying to recover the Kettle Granby grizzly bear population.

Lamb et al (2018) "documented an *c.* 50% increase in bear density since 1997 suggesting increased landscape and species conservation from management agencies played a significant role in that increase. However, bear density was lower where road densities exceeded 0.6 km/km² and higher where motorised vehicle access had been restricted. The highest bear

densities were in areas with large tracts of few or no roads and high habitat quality. Access management bolstered bear density in small areas by 27%.”

Despite this success on the part of wildlife managers we have another agency of the same ministry trying to pump more people into the remote high quality habitat of the threatened Kettle Granby grizzly bear with the potential to undo the population gains achieved over the last twenty years. There are significant identified impacts in PRL’s tenure application to the Kettle Granby Grizzly Bear Population that should have been identified by government wildlife officials beforehand to have turned this tenure application down before going to the first stage of public review. For instance Garth Mowat, Large Carnivore Specialist in a Nelson office of MFLNRORD who has authored and co-authored many of the studies conducted on the Kettle Granby Grizzly Bear Population should have reviewed this prior to release for public input. Does any of your ministry’s (flnrord) professional staff have any standing in reviewing this tenure application? We have reviewed significant documentation to conclude that any proposition that further increases human use in these watersheds will be detrimental to the grizzly bear population and as such the Valhalla Wilderness Society is opposed to the granting of this tenure. Thank you for your consideration of our review.

Sincerely,



Craig Pettitt, Director
Valhalla Wilderness Society

CC:

Katrine Conroy, Minister FLNRORD
Garth Mowat, Large Carnivore Specialist MFLNRORD
Al Grant Boundary Environmental Alliance

Citations:

Clayton T. Lamb Garth Mowat Aaron Reid Laura Smit Michael Proctor Bruce N. McLellan Scott E. Nielsen Stan Boutin First published: 09 January 2018 Effects of habitat quality and access management on the density of a recovering grizzly bear population

Linnel, John D. C., Swenson, J., Andersen, R., & Barnes, B. (2000). How Vulnerable Are Denning Bears to Disturbance? *Wildlife Society Bulletin (1973-2006)*, 28(2), 400-413. Retrieved January 13, 2021, from <http://www.jstor.org/stable/3783698>

Mowat, G., C.T. Lamb, L. Smit, and A. Reid. 2017. The relationships among road density, habitat quality, and grizzly bear population density in the Kettle-Granby area of British Columbia. Prov. B.C., Victoria, B.C. Exten. Note 120.
www.for.gov.bc.ca/hfd/pubs/Docs/En/En120.htm

SUBMISSION BY MARILYN JAMES on behalf of SINIXT PEOPLE to B C Government re Powder Renegade Lodge Proposal Jan 2021 follows:

Dear Resorts Branch,

As the Matriarch of the Sinixt Smum iem (traditional governance system) in the Columbia River area of BC, I am writing concerning this proposal. I request that as the representative of the Autonomous Sinixt I be included in the First Nations referral protocols.

As an Indigenous People divided by an international boundary, our unceded rights as Sinixt are upheld in Canada by Article 36 of the United Nations Declaration on the Rights of Indigenous People. This Declaration has recently been affirmed by the BC Legislature. Further, according to Articles 26 and 32, not only do we have the right to the resources in our tum xúla?x^w (traditional territory), anyone operating in our territory must obtain our free, prior and informed consent (FPIC) for any activities on our lands. Our Sinixt Indigenous rights and responsibilities, encompass the water, land, forests and animals including in our tum xúla?x^w. In the current political climate, your decision making processes mostly exclude the Sinixt, as we are not a recognized “band” – this is unacceptable in light of basic ethics as well as in the context of United Nations Declaration on the Rights of Indigenous People .

First and foremost, our concerns about this proposal include but is not limited to the following: we have not been consulted or even informed about this proposal. The Autonomous Sinixt operate under and uphold the traditional laws of whuplak'n and smum iem that informs the Sinixt position: We don't know who those people are. They are not in good relation or any relation with us.

Secondly, in light of climate change and other impacts on our traditional territory, we have serious concerns about yet another ski resort being established. Water and wildlife protection are to be prioritized over recreation and business. Due to high wilderness values, this is not an appropriate place for a recreational development and we demand that it be rejected.

Marilyn R. James

AL PEATT SUBMISSION to GOVERNMENT JAN 2021

NOTE: Al Peatt was the Provincial Biologist in 1997 whose comments were reproduced in part in our page and map of Motor Vehicle Closed area. See www.boundaryalliance.org

I object to Powder Renegade Lodge (PRL) proposal for tenure to enable a cat-ski operation in the Main Kettle River drainage. The proponent suggests its proposed business will have minimal impact on the land and wildlife. I see no reason for the public or government to have confidence in that claim.

I was part of the provincial management team that recognized that the Kettle-Granby grizzly bear numbers were perilously low in the 1980s. As a regional wildlife biologist, I worked to protect and conserve the remaining bears, recommending and achieving closure of grizzly bear hunting throughout the Kettle and Granby watersheds by the early 1990s. Later, when road-building for forest extraction ramped up in response to the then-proposed Granby Provincial Park, I worked to establish the still-in-place Granby Motor Vehicle Closure surrounding much of that Park. The closure is in place specifically to protect grizzly bear and other wildlife from public disturbance and, in particular, to reduce the potential for human-bear conflict during the year when bears are active.

The proponent's management plan states, "The KBLUPISP discusses that alpine and sub-alpine areas should be managed to achieve a Recreation Opportunity System (ROS) classification of semi-primitive, non-motorized." Locating a permanent lodge with support infrastructure within active grizzly bear habitat is contrary to the spirit of the vehicle closure, and to the Kootenay-Boundary Land Use Plan. Permanent lodges and their related infrastructure require year-round vehicular access and human occupation. The bear-active period overlaps the anticipated annual business preparatory season as well as the spring ski season (post-den emergence). Disturbance to wildlife will result, and there will be bear-human conflict—that inevitability cannot be mitigated. Further, contrary to what the PRL management plan implies, grizzly bears are sensitive to disturbance in their dens during winter. Dens may be habitually used and are typically located in subalpine and alpine glades. Dens should simply be avoided.

PRL states it "has no plans to extend its operation beyond backcountry skiing and snowboarding." Having no plans is not the same as plainly stating that PRL will not use its lodge during bear-active times. When the investment in an expensive lodge is made, simple economics will drive future demand for extending its use into summer and fall recreational opportunities (witness Big White and its ongoing golf course proposals).

Grizzly bear in the PRL area is federally identified as at risk (Special Concern). It is contingent on the Province to manage land and habitat in ways that supports recovery of at-risk species, to keep those listed as Special Concern from becoming Threatened or Endangered. Science has shown that the earlier hunting closures, park establishment, and the Granby Motor Vehicle Closure has resulted in

considerable rebound of grizzly numbers and distribution in the Kettle-Granby population unit (Mowat et al, 2017). It will be a step backward should government accept and support the PRL proposal. I trust that government will have the wherewithal to refuse the venture as proposed and will continue to support effective protection of our grizzly and other wildlife resources in the Kettle-Granby watersheds.

Alan Peatt, RPBio #230, FAPB

Mowat, G., C.T. Lamb, L. Smit, and A. Reid. 2017. The relationships among road density, habitat quality, and grizzly bear population density in the Kettle-Granby area of British Columbia. Prov. B.C., Victoria, B.C. Exten. Note 120.

END of TWO PAGES