

Dr. Michael Proctor  
Birchdale Ecological  
PO Box 920  
Kaslo, BC  
V0G 1M0  
June 2007

BC Minister of Environment  
BC Minister of Agriculture and Lands  
BC Minister of Tourism, Sports, and the Arts

Re: Important new information about grizzly bears in the Purcell Mts. and the proposed Jumbo Glacier Resort.

I am a biologist that has been studying grizzly bear ecology in the Purcell Mts. of southeast British Columbia for the past decade as part of my PhD and a Post Doctoral Research. I have published several scientific papers as part of that work. In the past, the Environmental Assessment Office has always requested that when I have some relevant information, would I please share it with the government agency charged with making the Jumbo Glacier Resort decision. It is in that spirit that I am writing this letter accompanied by a recent report I completed for the Provincial government that details estimating population size in several Grizzly Bear Population Units (GBPUs).

For context, first let me state the my project receives funding support from the Province of BC, the Habitat Conservation Trust Fund (indirect money from hunters), the local timber industry, and occasionally ENGOS, in other words, from a range of interests. My goal is to provide reliable independent biological science information as it applies to grizzly bears. Second, let me mention that it is my opinion that the Province of BC does a pretty good job of managing grizzly bears and I mention this in the many talks I do annually. It is always challenging to manage grizzly bears in the southern areas of the Province where human populations are higher and overlap with grizzly bears.

After a decade of research, our group did a meta-analysis to estimate grizzly bear population size in the central and south Purcell Mountains, which happens to be the stage for the proposed Jumbo resort. The results were surprising, in that our estimates were considerably lower than Provincial estimates. As our estimates are based on actual bear surveys done in the target area (we use the DNA-based method that is now standard across North America) rather than the extensive extrapolations used by the Province, there is really no controversy surrounding our estimates. In fact, the Provincial biologist for the Kootenay region has already accepted our estimates and incorporated them to set hunt quotas for the area. Our data represents the best available science for the region. John Boulanger, a co-researcher, and myself are hired across the world to help other projects estimate bear population size because of our extensive experience in this field.

The reason I am writing this letter is because the lower estimates have significant implications for the Jumbo Glacier Resort decision. It has always been assumed that because the Central Purcell grizzly bear population was at 93% of its potential (Provincial files), those bears could likely withstand the added stress of the Jumbo resort. However, with our new data it appears that the Central Purcell grizzly population is more likely between 50-60% (54% is our estimate) of its potential. Fifty percent of potential is the threshold for threatened status in BC. Furthermore, the South Purcell GBPU (just south

of the Central Purcell GBPU) is now at 44% of its potential. In fact, most of the Purcell range south of the Jumbo area is significantly lower than expected.

Therefore, the previous work done to assess the potential impacts of the Jumbo resort were operating under the erroneous assumption that the Central Purcell (and adjacent south Purcell) population units were healthier than they really are. Therefore the conclusions drawn will likely underestimate the impacts to the area's grizzly population and overestimate the ability to mitigate any impacts.

The logic of management as it relates to grizzly bears and the Jumbo decision is to "mitigate" for the increased mortality risk and habitat degradation and displacement that will result from the resort. Our results suggest that the room for mitigation is now greatly diminished. There are many mitigative measures that can be taken to lessen the impact of the resort, however the 2 ultimate levers for mitigation, reducing hunt quotas and managing access, will be required just to "recover" these populations without the impact of the resort.

As part of this analysis we do ecological modeling that correlates ecological and human variables to grizzly bear presence that also allows insight into the habitat quality and the extent that it has been compromised (from a GB perspective) by human activity. As in other similar analyses, we found that grizzlies are likely being influenced by the extensive backcountry road networks. This is not a surprising result, and may suggest that through appropriate management of access (while allowing timber harvest) and through adjustment of hunt quotas, we can recover these populations to healthier levels.

At another level, the regional grizzly bear population has become seriously fragmented and coupled with these lower population numbers, coexistence with grizzlies is presenting some interesting (yet attainable in my view) challenges, locally and regionally. My suspicion is that cumulative impacts are influencing the grizzly population in the Purcells and the situation will require thoughtful careful management to correct.

In summary, our results indicate that there are two new pieces of information that should be integrated into the Jumbo resort decision. First, the grizzly bear population in the Central Purcell GBPU is much lower than thought and is relatively close to the "threatened" population threshold. Second, because of the lower population size, the management actions that were available for mitigation of the Jumbo resort will now be required to "recover" these populations without the impacts of the resort.

As I recall, there were 2 Provincial Ministry opinions as to the potential impacts of the proposed resort. Matt Austin (MoE Carnivore Specialty at the time) rendered his measured and informed biological opinion stating that the resort will result in significant impacts to the Central Purcell grizzly bear population and mitigation would be difficult. A second opinion put forth by the Province suggested that because the resort would not likely drive the Central Purcell population to a threatened status (50% of potential), the impact should be considered insignificant. This second opinion should now be considered erroneous in light of our new evidence, suggesting that the current status is more accurately 54% of potential instead of the earlier perceived 93% of potential.

If you have further questions regarding our report and it's relevance to the Jumbo decision (or any other reason), don't hesitate to contact me.

Respectfully,



Michael Proctor