

Comments on the report, “Environmental Assessment Registration - Mount Carleton Grooming Hub Project”

Submitted by the Canadian Parks and Wilderness Society – New Brunswick Chapter (CPAWS NB),

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CPAWS is the only nationwide charity dedicated solely to protecting our public land and water, and ensuring our parks are managed to protect the nature within them. We have been very concerned about plans to develop the snowmobile trail network within Mount Carleton Provincial Park, and especially plans to develop the trail up Mount Carleton itself for snowmobile use. Having reviewed the Environmental Assessment Registration document, we remain very concerned due to errors and gaps within the document itself. Our concerns and unanswered questions are itemized below.

1) Section 2.3 – the report states, “...the do-nothing or ‘null’ alternative is not a preferable option. The mandate of the Minister of THC is to promote the use of provincial parks” (p.2). This statement appears to be loosely derived from the *Tourism Development Act, 2008*. However, under the *Parks Act* (amended 2011), the first purpose of parks is to “permanently protect ecosystems, biodiversity and the elements of natural and cultural heritage” (Section 3.a). The public review that lead up to the *Parks Act* revisions showed significant support for this purpose for Provincial Parks. In the *Parks Act*, the additional purposes to “...provide opportunities for recreational and outdoor educational activities to promote a healthy lifestyle, provide opportunities to increase knowledge and appreciation of the natural and cultural heritage of the Province, and offer a tourism product that enhances the Province’s image as a quality vacation destination” (Section 3 b,c,d) are tied to the first purpose. It is our belief that, in this case, the *Parks Act* must take precedence, and that government has a mandate to ensure that they protect natural and cultural heritage within the parks before they proceed with development.

2) Section 2.6.3 – The description of the “utility road” (also called the East Trail) clearing states, in part, that it “...will widen the utility road from approximately 2-3 m to 4m wide”. The statement of 4 meters is at odds with previous statements that the trail would be cleared

to 12 feet (4m = 13.1 ft). Although this is a small point, it indicates that there is no precise completed plan for the work that needs to be done, nor how it will be done.

- **Q1** – How will it be determined how wide the trail will be at various points along the trail, and at what point will these trail widening specifications be available for expert review?
- **Q2** – How will the clearing of vegetation be performed (equipment), what will be done with the vegetation removed, and what future measures will be taken to maintain that clearance?
- **Q3** – What measures will government take to protect the environment during the clearing stage?

3) Section 2.6.3 states the trail “...will end at a turn-out approximately 400m from the summit... No removal of mature vegetation for the utility trail or turn-out is anticipated” (p.9). This phrasing suggests that a detailed survey of the trail has not been done with an eye towards the current vegetation or what will actually need to be removed. There is also no description of the size of the turn-out, how it will be maintained, or whether it will be “treated” to discourage regrowth.

- **Q4** – What will be the size and configuration of the turn-out?
- **Q5** – What measures will be taken to prevent regrowth of vegetation in the future, or will the turn-out be surfaced in some fashion?

4) Section 2.6.3 states, “The utility road may also require periodical repairs by importing small amounts of fill” (p.9). This is the first indication that there are plans to upgrade the trail itself. Nowhere in the document is there detailing of what the surface of the “utility road” will be like, where the fill would come from, or how it would be transported to the site. Nor is any mention made of dealing with erosion issues (past or future) or whether further engineering efforts will be used in the “refurbishment” of the trail.

- **Q6** – What measures will be taken to upgrade the surface of the trail (grading, filling, boulder removal, embankments), and how will material be transported to the various parts of the trail?
- **Q7** – Given that the work is being done to counteract the effects of erosion, what methods will be used to curtail future erosion, and how will these methods affect water flow on the slope? If there is a need to deal with erosion, why is there no evaluation in the report about the potential that cutting the canopy along the trail may make erosion worse?

5) Section 4.1.2 states “...human receptors to noise within the park, although they may occur, will be rare and not anticipated to be significantly adversely impacted by the project; therefore are [sic] no longer discussed in this report”(p.24). It appears that no attempt has

been made to determine the level of usage of the park by winter recreationists, and it has simply been assumed to be virtually non-existent.

- **Q8** – How much non-motorized winter activity takes place in the park, and what forms?
- **Q9** – How much interaction between non-motorized and motorized users can be expected in a given season?
- **Q10** - Will non-motorized users be allowed to use the groomed trail(s)?

6) Section 4.1.2 states: “Studies of ATV and snowmobile impacts on deer have shown that in general, deer are less stressed by motorized vehicles than by foot traffic such as hiking and snowshoeing ... and while the vehicles may create short-term disturbance to animals within a short distance ... they are typically capable of adapting and avoiding the source of the noise. ... Based on the temporary and short-term nature of the noise impacts ... this is not considered a significant adverse environmental impact and is no longer discussed in this report” (p .24). These statements ignore a larger body of wildlife research that shows that the effects of snowmobiles on wildlife can be significant, and the dismissal of these concerns is, in our view, unsupported.

a) The report cites Harris et al, (2013)¹ in support of the conclusion that deer are more affected by hikers and snowshoers than by snowmobiles. However that same report concludes, “Therefore, nonmotorized recreation causes fewer, stronger disturbance effects in relatively smaller areas, while motorized recreation generates more, weaker disturbances across larger areas” (p.55). Given that the registration report has at its goal 1000 snowmobiles trips per season (p.22), then it can be logically assumed that the impact of snowmobiles on wildlife within the park will be greater than that of nonmotorized activities, and therefore needs to be further considered.

b) Colescott and Gillingham (1998)² demonstrate that moose bedding within 300m and feeding within 150m of active snowmobile trails altered their behaviour, temporarily displacing them to less favorable habitat.

c) Neumann et al (2011)³ show that snowmobile disturbance of moose resulted in expanded diurnal (daytime) activity ranges.

d) Tomeo (2000)⁴ studied stress hormones found in moose fecal matter, and found higher levels in areas with snowmobile activity.

e) Moen et al (1982)⁵ showed increased heart rate and movement in white-tailed deer resulting from snowmobile disturbance.

f) Severinghaus and Tullar (1978)⁶ concluded that for white-tailed deer, during a 20-week winter with snowmobile harassment each weekend, "...food enough for 40 days of normal living would be wasted just escaping from snowmobiles."

The above studies show that the noise effect on ungulates near the trail system can be significant, and must be considered as part of the EIA. As well, there are possible effects on black bears⁷ and other smaller mammals. Snowmobile noise disturbs wintering wildlife. It causes stress and wildlife need to use extra energy reserves to avoid noise and disturbance, and it changes where wildlife go in the park to rest, eat or hibernate. Wildlife may be displaced into less optimal habitats that lower their chances of surviving through the winter.

- **Q11** – Where specifically are the prime habitats for moose and deer within the park in relation to the snowmobile trails?
- **Q12** – Where are the habitats for other mammal species, and what effect can be expected on them from snowmobile noise?

7) Section 4.5.1 notes that the noisy construction activity will take place later in the year after the majority of birds species have finished their nesting, so is a non-issue. As for snowmobile noise, it occurs "when the majority of species have vacated the park. Therefore, sensory disturbance to the vast majority of bird species will be non-existent" (p25). The report does not include a listing of the species that remain over winter, as they are not migratory, so it is dropped from consideration. There is no indication of what effect the noise would have on those birds that overwinter in the park. It is also possible that this project may have a secondary effect on birds; for instance, birds that feed on rodents may have their food source affected by the project, which may result in a reduction of available food.

- **Q13** – What bird species overwinter in Mount Carleton Provincial Park, and what impact might this project have on these species?
- **Q14** – Where are the bird habitats in relation to the trails?

8) Section 4.5.2 states: "Due to the fact that the proposed project is to be located on existing roadways, and no wildlife habitat is to be permanently destroyed, no impacts to wildlife are anticipated from the construction of the project and are therefore no longer discussed in this report." This statement is presumptive in multiple ways.

a) Vegetation along the roads and the trail up Mount Carleton will be removed, with alterations to the actual pathway as well. A direct result of this could be a change in erosion patterns, which may have a significant effect on animal habitats near the trail and "downstream". As there is no indication in this report as to how future erosion will be controlled, then the assumption of "no impact" is optimistic at best.

b) Grooming the trails is likely to make those parts of the park more attractive to predatory species than they were before. Bunnell et al (2006)⁸ found that snowmobile trails

were good predictors of coyote activity, with 90% of coyote tracks within 350 m of a trail, allowing them greater access to areas with lynx and smaller prey. By improving access to the park of coyotes, there will be more competition for prey species, resulting in a possible loss of smaller species and more threat to lynx.

c) The report ignores the impact of snow compaction on wildlife. When the groomer and snowmobiles go on the trail, they compact the snow, changing it from deep, fluffy snow to hard, packed snow. Compacted snow reduces habitats for small mammals that live in the extensive tunnels they create under the snow.^{9,10} Small mammals can be killed directly when the snowmobile goes over top of them, or the snowmobiles can collapse the snow tunnels that wildlife had been using to search for food or to create warm hollows.¹¹ Wildlife that could be impacted by this activity include shrews, mice, weasels, squirrels and voles. Reducing the populations of small mammals would remove food sources for owls, hawks, bald eagles, Canada lynx, weasels, and American marten – resulting in ecosystem wide impacts up the food chain.

- **Q15** – How will these potential impacts on small mammals that use these subnivean (under the snow) habitats be avoided or mitigated?

9) Section 4.6.2 states “the proposed project is not anticipated to adversely impact Mammal Species at Risk and is therefore no longer discussed in this report” (p. 29). The Canada lynx is a provincially listed Species at Risk (Endangered). CPAWS would expect that this report should evaluate whether the cumulative impacts of: a) noise from snowmobiles, b) increased competition from coyotes that use the groomed snowmobile trails, and c) possible reduction of food sources if snowmobile use causes a reduction of small mammal populations could impact the ability of Canada lynx to find suitable habitats in the park. The Gaspé shrew is considered a Species of Special Concern under the federal Species at Risk registry, and is listed as “May be of Concern” by the Province of New Brunswick’s General Status of Wildlife. The report alludes to the fact that it has been previously found on Mount Carleton. The report does not include results of any fieldwork, or any description of whether this development might affect known locations (locations are not described). Gaspé shrew are active during the winter, creating snow tunnels to keep warm and to search for food. The report ignores any potential impacts on their populations in the park. There is no indication where on the mountain the shrew is located, its range, or its population size. Further, the shrew is not dormant during the winter, so the possibility of “interaction” with snowmobiles exists, but is not addressed.

- **Q16** - Where are the critical habitats for the Gaspé Shrew, and what measures will be taken to protect them?
- **Q17** – How might cumulative impacts of snowmobile use affect the long-term ability of Canada lynx to find suitable habitats in the park?

10) Section 4.6.1 – *Species at risk Birds* – concludes, “...the proposed project is not anticipated to adversely impact bird Species at Risk, and is therefore no longer discussed in this report” (p.29). However, bald eagles are a provincially designated Species at Risk (Endangered), and research has indicated that noise from snowmobiles can negatively impact already stressed bald eagles¹² that are likely using the park in winter.

- **Q18** – What other sources of data, in addition to the Atlantic Canada Conservation Data Centre, were used to determine whether species at risk (birds, mammals, plants, invertebrates) have been found in the park?
- **Q19** - What is known about bald eagle winter habitat use in the park to search for food, for roosting and for sheltering for warmth?
- **Q20** - How might noise from snowmobiles affect the ability of bald eagles to survive in the park through the winter, and how will this impact be avoided?

10) Section 4.6.4 – *Species at risk Flora* – concludes no impact on Species at Risk habitat as the “operation of the project will occur during the winter, when flora are not present or covered by snow” (p.29). It notes that the habitat in question is largely wetlands and watercourses. The report fails to take into consideration certain potential impacts of increased snowmobile pollutants: there are studies that show an increase in acidity when the pollutants released from snowmobiles accumulates in the snow, and is released in the spring during snowmelt, flowing into lakes and waterways. Nazarenko et al (2016)¹³ conclude, “...the accumulation and transfer of pollutants from exhaust – to snow – to meltwater need to be considered by regulators and policy makers as an important area of focus for mitigation with the aim to protect public health and the environment” (p.197). Section 4.1.1. discusses the amount of gasses expected to be released during a season, but concludes it to be not an issue as the exhaust is stretched out over a full season. However, the true concern is the amount of particulate matter captured by the snow, and then all released in a relatively short period during the spring thaw.

- **Q21** – What is the real cumulative effect of snowmobile exhaust to be expected, and what impact will it have on habitats?

11) Section 5.4 states that to deal with possible “increased encounters with wildlife, which may use the trail as easy travel routes (Deer, moose and coyotes particularly...)”, they propose, “Clearing of vegetation from the trail ROWs, resulting in increased visibility for snowmobilers” (p.35). This suggests that in some areas, the trail may be widened beyond the 4m width previously declared. This introduces further uncertainty towards what the finished trail will look like, as well as introducing further potential for habitat disruption and increased erosion. The same section also states, “...increased signage will warn

snowmobilers of turns, hills, areas of high wildlife-usage, and decreased speed zones within the park”.

- **Q22** – How much wider do the proponents of the project expect to have to make the trails?
- **Q23** – Where are the areas of high wildlife-usage identified by the proponents?
- **Q24** – What will be the speed limit for snowmobiles within the park?

12) We also point out the following elements that are not discussed in this document:

- The report does not mention the relationship between the proposed project and potential climate changes for the region that includes the park. It does not mention how trail widening will affect the resilience of the natural areas along the steep trail up Mount Carleton, given the potential for stronger or more frequent rainstorms in the future.
- The report does not analyze the potential impacts that this development will have on non-motorized tourism and use of the park, either during winter or during other seasons. It assumes a net economic benefit to the park from the new snowmobile developments and use, without any socioeconomic study about how the changes made to the trail up Mount Carleton might affect overall tourism or non-motorized use year-round.
- The report does not evaluate the impacts of two bridges that are being converted from foot traffic bridges to bridges that can safely support motor vehicles. There are likely potential impacts from this development that will increase illegal motorized use of the northern part of the park. Mitigation measures related to increased enforcement should be part of the evaluation of this project.
- The report contains factual errors in calling the East Trail (referred to in the report as the utility road) up Mount Carleton an “existing snowmobile trail”. This trail has not been an authorized snowmobile trail, so any snowmobile use is happening without permission or authorization, and only because the park does not have enough enforcement in winter to prevent that use. Since “existing use” can influence how technical reviewers perceive the potential impacts of a development, this statement needs to be clarified.

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