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Via PO Box 607

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To: Wekeezhii Renewable Resources Board

102A 4504-49th Ave.

Yellowknife NT

Re: Wolf Management Proceeding

Submitted October 23, 2020

Good Day,

I am writing this letter to add my voice and unique perspective to the pending decisions on the wolf “management” program. Please take a few moments to read it. I know it is a long letter, and I have tried to shorten it without taking out the most important points I feel I must make. Thanks, in advance, for giving some serious consideration to the perspectives I offer.

By way of introduction, I am a bush pilot. It was wolf research and aerial telemetry, almost 40 years ago with Dr. David Mech and his colleagues, that began the focus of my flying career. My wife Kristen and I own and operate one of the few remaining bush-plane air services in the NWT. At 63, I am now in the final decade of my flying career. Over the past 35 years, 13,000 hours of flight time, I have specialized in natural-resource flying, including wildlife survey, telemetry, capture support, research, and observation. For the past 33 years my work has been in Canada’s far north, the NWT and Nunavut, working from my remote home base north of Lutsel K’e and northeast of Yellowknife. Since 1994 I have been one of the main wildlife-research contract pilots for the ENR.

Another facet of my personal perspective on this wolf-kill issue comes from the fact that I have lived for 33 years on a remote homestead at Hoarfrost River. My family and I have shot and killed wolves, caribou, moose, muskox, and bears. And for thirty years our nearest neighbor was arguably the most accomplished and successful wolf hunter in the world, with average annual kill totals -- unsubsidized by any government bounty -- of over 100 wolves per winter. I am not a wolf hunter or a trapper, but I am a subsistence hunter, and I am no stranger to the nitty-gritty realities of killing wildlife, and the natural cycles of predators and prey.

I would like to start my letter by stating the situation as I see it, and to do so more plainly than in any of the technical documents being referenced. To try to "sanitize" this conversation, to fall into the habit of speaking in the jargon of wolf "removals" and "harvest" instead of kills and hunts, and to let computer blips and dots on graphs begin to represent living organisms, apex predators, the beleaguered hunters of a shockingly reduced caribou herd, is a slippery slope and a bad habit. It is the same sterilization that the press and politicians use whenever they want to tidy something up, to make it more palatable. Bureaucracies tend to do this whenever stating something too bluntly might upset the public's fragile perceptions. Saturday-morning English is needed, and I will be using it here.

Last year for the first time the ENR began killing wolves by finding them and shooting them from helicopters. Now the ENR is looking for a green light to extend this airborne shooting program for five more years on the ranges of two caribou herds, killing wolves up to a targeted total number each year. This airborne wolf kill is the most contentious part of this proposal, and it will be the focus of my comments.

ENR again will offer a cash bounty incentive to encourage on-the-ground hunting of wolves over the course of coming winters. This program has been tried for several years with lackluster results, i.e. few wolves have been killed and relatively little bounty money has been paid out. The plan is to boost those on-the-ground wolf kill totals up to the targeted kill number every year in late winter, by shooting more wolves from helicopters, until a) the target is reached; b) the time and money run out; or c) no more wolves can be found.

This is how it will go down: Every year in March and April, for the next five years, an elite team of professional pilots and shooters will fuel up several million-dollar

flying machines, load up their GPS's and rifles, and then fly for many days and tens of thousands of miles over mostly empty taiga and tundra, to locate a few of the remaining natural predators in that ecosystem, come around into wind, drop to a few feet over the ground and slow down to wolf-panic speed, about 40 miles per hour, open the door and shoot and kill a few wolves. The surviving wolves will scatter, and they will be hunted and tracked and shot at again. **This is difficult and dangerous work. It is also incredibly expensive, especially considering the paltry results, or the dollars spent per wolf killed.**

When trying to digest long technical reports filled with numbers, graphs, and projections, it is often helpful to step back and put some of these statistics in a different perspective. Some numbers taken directly from the ENR summary may help readers to do this. There are precise figures in the report, estimating the number of hours flown per wolf killed, and the number of kilometers travelled (by hunters) per wolf killed. But how can a reader visualize those numbers?

Try this: At 64 degrees north, the circumference of the earth is 17,615 kilometers. Thus, one way to imagine the extremely low “catch per unit effort” of the North Slave on-the-ground hunt – which was extremely low because of the proven and obvious scarcity of wolves on the caribou range nowadays (more on that below) – is to imagine a lone hunter setting off to kill wolves and collect some of that bounty money. Using the numbers given in the ENR summary report, that on-the-ground North Slave hunter could expect to **drive four times around the entire world, and kill a total of 5 wolves** (actually not quite five wolves, but the point is clear.) Stop, and imagine, and think about that.

For the aerial wolf-kill effort the numbers for hours flown and distances covered are equally sobering, and the numbers for cost must be nothing short of staggering – although no monetary costs are listed in any report I can find.

Using a conservative estimate of speed, and conveniently ignoring a big chunk of the total flying, (which the report ignores by not listing the ferrying and positioning mileage) the total distance flown in only the search-and-kill effort by helicopter is about 9500 nautical miles. Which is, coincidentally, the circumference of the earth at 64 degrees north. So, to continue the distance analogy, climb into a helicopter and fly north to Wekweeti, turn either east or

west, **fly around the entire planet, arriving back at Wekweeti... and on your flight around the world, kill a total of 36 wolves.**

A total of 95 hours of helicopter time, **EXCLUDING FERRY AND POSITIONING TIME**, at something well over \$3000 per hour, all in, for a **total kill of 36 wolves.**

Price per wolf – you do the math. But please, find and add in the ferry and positioning time of the helicopters when you do so. Add in also the cost of all the transport and handling of wolf carcasses, and on down the list of expenses included in this program. I cannot find these, and I am thus making this a low estimate. It behooves you decision makers, who have access to the real numbers, to **consider the total cost here, and to look at what other natural-resource priorities might be funded with those millions of dollars over the next five years.**

I know that in the North, in government, money seems to fall from the sky in huge unencumbered bundles, but it still should carry with it some caveats and conscience, in order to use taxpayer dollars wisely. So please, crunch the numbers again, and look at what this is costing. And remember that this cost is not just in money, but in time and effort by everyone involved. A five-year program like the one proposed eats up an enormous proportion of the daily workload of an entire team of professionals, in ENR and elsewhere. These people would otherwise be able to focus their talents on other urgent matters.

I have no doubt that under the program as proposed some wolves will be found and killed, every year, and that for each wolf killed some caribou will be saved from predation. If you fly around or drive around long enough, up on the caribou range, you will still find a few wolves. The main questions to consider, I think, are two: **First, do the results make this a wise investment of effort and money?** and **second, what is the benefit of this wolf kill for the caribou herds?** The latter is the fundamental question here.

There are two important points to raise in trying to answer that vital second question. First, the recent peer-reviewed paper in the scientific journal **Arctic** posits a sine-wave cyclic fluctuation in migratory barren ground caribou populations. This aligns not only with long-standing scientific evidence, but with traditional knowledge. It is a well-established fact, and the September paper in **Arctic** fleshes out the evidence with mathematical backing. One of the lead authors of the paper has stated that the net effect of the aerial wolf kill effort will

in fact be negligible. If you have not already called some of these non-ENR wildlife biologists, and discussed this paper and this viewpoint with them, please do so before you make your final decision. I'm sure they would be happy to talk to you.

Secondly, on the question of the benefit of a wolf kill on caribou recovery, is the reference to successful "precedents" elsewhere. In the technical report and the proposal for more airborne killing of wolves, reference is made to the "success" of "similar" programs in B.C. and Alberta. The McLaren / ENR paper of 2016 summarizes these programs and their results, but **it does not conclude that the same methodology will work on the barrens.** It is vital to point out, yet again, that these B.C. and Alberta wolf-kill programs have not taken place on the ranges of migratory barren-ground caribou. **Those provinces do not have migratory barren-ground caribou.** The differences are obvious and do not need listing here.

Distance and mobility, and the ease of travel by both caribou herds and wolf packs on the barrens and the taiga, are also unique and important factors here in the far north.

For example: One morning in late December, 2018, my family and I looked out on the ice of McLeod Bay, just a few hundred feet offshore of our homestead, at the largest pack of wolves any of us had ever seen. 22 animals, all prime and robust, had drifted in across the ice to rest for a moment and gaze on us and – we laughed a little nervously – consider their options. This is the largest pack of wolves we have ever seen, and it started us thinking about just what it takes to feed such an assembly of carnivores, at forty below zero, day in and day out all winter long. What in the world could possibly feed them? But we knew, from my recent flying on caribou-survey work, that just 40 miles east of us the Qaminuriaq caribou herd was sweeping into the Snowdrift River valley, and that there were thousands of caribou there. And we knew that, for a wolf pack, forty miles was less than a day's journey at an easy trot. They were almost there. Those wolves soon disappeared, heading east, and we never saw another wolf all winter, until we spotted one lone animal out on the ice in April. Point being that we must all keep reminding ourselves that **wolves are very mobile, and a journey of 400 or 500 miles to find caribou, or to switch the hunting effort to another area, is for a wolf pack only a few days of easy travel.**

I would like to offer several other anecdotes from my experience, related to the oft-referenced question of “sightability.” In the report, much is made of the notion that there could be **up to two or three times more wolves out on the caribou range than were estimated by the aerial survey. I disagree.**

In boreal forest and taiga, I agree that wolves can be tricky to find and spot, but with the right airplane (which is not a Beaver), it can be done. Unless wolves are out in the open and moving, they are elusive and can be hard to see. Kill sites, though, are obvious. **If there are wolves in an area, there are going to be kill sites. The more wolves there are, the more kill sites there will be, and no matter what the aircraft or the observer expertise, the kill sites will be spotted.** In forest and taiga where snow is soft enough, tracking can help to locate wolves, and with the right crew and airplane it can be done to catch up with wolves and then to spot them.

But – and this is a big but – once past treeline, in winter, there is absolutely no “sightability” issue when it comes to spotting wolves from a low-flying and slow-moving aircraft with competent spotters on board. Over bald white tundra, at 300 to 800 feet above ground, the pilot and the observers see virtually every living thing down on the ground, including wolves, foxes, flocks of white ptarmigan, lone ravens, and ground squirrels. A pack of wolves, or an individual wolf, or the blood spot of a kill site, show up plainly. **ON WINTER TUNDRA, IN CLEAR WEATHER, AT LOW ALTITUDE AND SURVEY AIRSPEED, WITH BASIC OBSERVATIONAL SKILLS, THERE IS NO “SIGHTABILITY” ISSUE WHEN IT COMES TO SEEING WOLVES OR WOLF KILLS.**

In January and again in March of 2018 I was contracted by ENR, through its North Slave office, to fly an extensive series of low-level transects over the core Mobile No-Hunting Zone of the Bathurst caribou herd. I flew 43 hours of this work and reported all sightings and waypoints to ENR. Again and again as I sent my daily reports in, I was asked, “What about wolves? We need to know about wolf sightings and kill sites.” My answer, day after day, was that I was not seeing any wolves, and **not seeing any kill sites.** Believe me, I reiterated to my handlers, I will tell you if I do see wolves or kill sites. I am not going to fly by them without seeing them.

This utter absence of wolves from the core areas of the Bathurst caribou winter range was nothing short of astounding to me in that 2018 survey. It still is. In February and again in March of 2020, I was again dispatched by ENR to fly low-level transects and record all my sightings, this time focused on the tundra between Mackay Lake and the Gacho Kue diamond mine. Again, I saw zero wolves. I saw plenty of other things, including wolverines, caribou, and the trucks and trailers (and caribou-butchered areas) of many hunters parked and active along the ice road. I saw the haul trucks and the mine, I saw ptarmigan and ravens and herds of muskox. Wolves? Wolf-kill sites? Zero. Not one in either the February or the March survey. Open tundra, perfect visibility conditions, perfect aircraft, experienced crew. Zero wolves.

In the summer of 2019 I had two long contracts, one with a geologist studying eskers, and one with a CBC camera crew filming muskox. This work sent me flying low-level over areas of tundra where, every year for 18 years straight, between 1996 and 2014, it was my privilege to be the main pilot for ENR's wolf-den occupancy and population research. I know every one of those dens from long experience. My other flying jobs take me past those old den-sites frequently. (When reading the ENR report I was bemused by the fact that the helicopter wolf-kill crews were dispatched out to these same den sites last May in a last-ditch effort to find more wolves to kill. None were found; the dens were unoccupied. As I knew they would be.) In that summer of 2019, in all the miles I flew and all the old den sites that this work brought me past, I saw zero wolves. Zero. Again, this is not a "sightability" issue. I was struck by this. I'll say it again: The absence of wolves on the Bathurst caribou range has, since about 2012, been nothing short of astounding.

Five years ago, in the spring of 2015, when I learned that the annual wolf-den survey and pup-count surveys were likely not going to be funded, I wrote a letter to the ENR expressing my concern that an unbroken string of annual wolf-den and pup-survival data was about to be broken. I later followed up with some conversations about this with wildlife people in upper management. It baffled me that this relatively inexpensive -- and at that point unbroken -- annual set of data points was about to be stopped completely.

This was not a matter of looking for flying work. In fact it was a relief to me to have that season of the year freed up from that work, and there was no shortage of other work to take its place. But I was baffled by the decision to break the continuity of that long-standing set of information, a set of useful data that was so easy to acquire and continue.

(And this is another important point. I am not making this long written submission, on my own time when I would rather be out doing something else, because of a motivation that has to do with looking for flying work. I am writing this because I am a citizen who happens to have some useful insight, and a unique insight, on what is being done and what is being proposed. I was offered a significant chunk of paid flying work last March by ENR, as a part of this wolf-kill effort, and I turned it down on principle when I was informed that wolf radio-collar locations were likely to be used in assisting the shooting crew in locating wolves to kill. I consider this methodology abhorrent. Think about it. You might too. I miss the money that the flying work would have brought in, being now smack dab in the worst downturn in our business ever, due to the pandemic, but I do not regret my decision.)

I have real concerns about the wisdom, the efficiency, and what I predict will ultimately be the fruitless outcome of this program.

A final note. In September, a peer-reviewed scientific article titled "*Do North American Migratory Barren-Ground Caribou Subpopulations Cycle?*" was published in the journal **Arctic**. The authors lay out the mathematical backing for the fact that barren-ground caribou herds in North America cycle in a sine-curve of peaks and valleys, the amplitude and frequency of which vary. This insight gets right to the gist of a scenario which I think deserves a fresh look.

Consider, as I often have, the remarks made to me by a distinguished caribou biologist, after a lifetime of research, whilst sitting in the back of my airplane one day as we flew over caribou herds. I paraphrase: "When a herd begins to cycle downward, and you continue pressure on it, as happened in the period 2003-2008 and beyond, you run the risk of driving it below that natural low level. When you do this, you have entered the realm of Newfoundland and the codfish stocks, and nothing short of decades, and a total halt to hunting, is going to get the cycle back on track."

In the caribou's past downward cycles, there was no public access to 1) radio-collar information; 2) high-speed and dependable snowmobiles, 3) GPS navigation on the barrenlands and 4) – in lethal combination with these first three – easy access by ice road and heated pickup truck to easy jumping-off points to hunt the remaining caribou. In the past, as Danny Beaulieu and many others have noted again and again in presentations on this topic, when the caribou numbers dipped down, the hunters did not know where to find them, and so they focused their efforts on other sources of food, like moose, fish, and small game.

Nowadays, no matter how low the numbers go, we know right where all the remaining caribou are. This persistent high-tech human predation is a new thing under the sun. This is the very first downward cycle when these herds have faced these combined new factors.

What is the path forward here? Consider this: if you are bound and determined to kill more wolves on the caribou range, increase even further the incentive program for on-the-ground wolf hunting. Just put the opportunity out there, with a substantial cash incentive. If there are wolves killed by hunters, that may be some help to the caribou herds as they emerge out of this down cycle. The effort will mesh with the ENR's admirable success in getting hunting stopped on the herds during this critical time. Success for which I applaud everyone involved.

But if, as in last winter, the on-the-ground harvesting proves essentially fruitless, despite all efforts and all incentives and all the kilometers covered, that should be adequate proof of the fact that **there are so few wolves on these ranges that the effort to fly out and kill a few of them is an utter waste of time, money, and professional careers.**

I will close with a passage from wildlife biologist Bob Hayes, from his book **Wolves of the Yukon**. For many years Bob was the manager of wolf-kill programs in the Yukon, including aerial gunning.

"A friend once told me he appreciated the talks I gave in Yukon communities to explain wolf control. He said they were very objective and he couldn't tell if I was for or against it. I retired from the Yukon Fish and Wildlife Branch in 2000. I had had a decade to reflect on my experiences. A decade later I have also been able to evaluate the long-term results of wolf control programs I helped design and deliver. I can now say the benefits of broad scale killing of wolves are far from

worth it – not to moose, caribou, Dall’s sheep, or people. It should never happen again.”

And another line, quoted by Bob in his book, at the start of the chapter summing up his thoughts on the issue and how they have evolved over time:

“When the facts change, I change my mind. What do you do, sir?” -- John Maynard Keynes (1883-1946)

Thank you for reading this, and for your consideration. And finally, if any of you senior decision-makers want to fly up to the wolf and caribou range and see things for yourself, first-hand, it would be my pleasure to bring you there. I am standing by.

Most sincerely,

Dave Olesen

Hoarfrost River, NWT