

**A REVIEW
OF THE YUKON GOVERNMENT'S 1992
WOLF CONSERVATION AND MANAGEMENT PLAN.**

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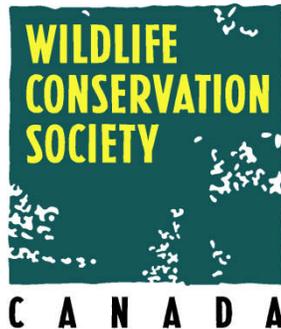
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Wolf Management Plan Public Review Process



SUMMARY

The current public review process concerning wolf conservation and management in Yukon has prompted us to undertake a review of the government's current policy and plan. The 1992 Wolf Conservation and Management Plan was a forward looking, thoughtful and comprehensive approach to the issue of wolf management. Our review of that Plan has revealed relatively few shortcomings in the Plan itself, and consequently we recommend that the broad structure and content of the Plan remain in place. In particular we support: (i) avoidance of any large-scale wolf population control that has the objective of enhancing ungulate populations; (ii) considering wolf conservation in an ecosystem context in view of the strong and well-documented ecological role of wolves in structuring ecosystems; (iii) improved ungulate management through more robust harvest data collection processes and improved land use planning. We urge the revised Plan to once again include robust and strongly limited conditions on any likelihood of large-scale wolf control. Some wolf harvest is justifiable, but doing so for the purpose of attaining substantive increases in ungulate populations requires the near-eradication of associated wolf populations repeatedly and without end. Such action is ethically, economically and practically unjustified. Reliable assessment of sustainable harvest levels for ungulates is often handicapped by insufficient population surveys and incomplete harvest data. We urge the revised Plan to include strong objectives for attaining sufficient data on ungulate population size and on harvest levels by all hunters. Government resources are better spent on realizing this objective than performing wolf control year after year. We urge the revised Plan to highlight the need for land use planning that will clearly outline which portions of the Yukon are assigned for particular land uses (e.g., wildlife habitat and conservation; agriculture; timber harvesting). The perception that wildlife populations are in a gradual, but perpetual, state of decline is sometimes real. This results in hunters calling for wolf control rather than placing clear focus on the ultimate causes of such declines, which are the persistent loss of habitat and the enhanced access for hunters that result from government keeping public lands available for all potential land uses (mineral exploration and development; agriculture; timber harvesting; wildlife habitat; recreation; aggregate extraction; residences). Wildlife require large conservation areas set aside for the perpetuation of ecosystem functions, and, on other portions of the land base, strong management controls on access and habitat loss.

Introduction

We have prepared this document in response to the advertised public review process concerning wolf conservation and management in Yukon. We are grateful for the opportunity to comment on this important topic.

In this document we provide comments and recommendations regarding wolf conservation and management in Yukon. Comments are organized following the structure of the 1992 Yukon Wolf Conservation and Management Plan (Yukon Renewable Resources) so as to make them directly relevant to a newly written Plan. We have written recommendations in bold, italicized text.

1.0 What is the Yukon Wolf Conservation and Management Plan?

Recommendation: The introductory section of a revised Plan needs to reiterate the necessity of an ecosystem-based approach to wolf conservation and management, an idea that the 1992 Plan introduced.

Wolf conservation and management is far more than a single species endeavour. Various sectors of society are interested in wolves for different reasons, making the need for an up-to-date Yukon government conservation and management plan quite pressing. A prominent interest is in the abundance and health of the ungulate populations on which wolves prey; wolf management is frequently perceived as another form of ungulate management. The influence of wolves on the ecosystem goes far beyond their immediate prey, because their influence on ungulate numbers cascades through the trophic food web to influence the structure and abundance of various vegetation communities that are food for ungulates and also habitat for birds, smaller mammals and insects. It is well established that a healthy wolf population generally results in an ecosystem with greater variety of species and habitats.

2.0 Wolves in Yukon

Recommendation: This review of wolf biology, with particular focus on the northern boreal mountains of Yukon, needs to be updated with the detailed findings of the intensive research projects that have been published since the 1992 Plan, especially regarding the results of experimental wolf culling programs.

The Yukon government historically has undertaken some of the most detailed and informative studies of wolf biology, including wolf-prey dynamics and wolf culling in a controlled experimental framework (e.g., Larsen, D. et al. 1989 J. Wildl. Manage 53:548-557; Hayes, R. et al. 2003. Wildlife Monographs 152:1-35). This research is exemplary and deserves detailed attention in the Management Plan. It tells us specifically that in many regions wolves are not the only, or the primary, predator of ungulates. Grizzly and black bears can have dramatic effects on ungulate populations, so wolf removal in these regions is unlikely to release these prey populations from the quite heavy predation that limits their population growth. The research also tells us that in some regions predation by wolves is the dominant limiting factor to moose

and caribou population growth, so wolf removal can result in the growth of ungulate herds in some areas. However, such wolf removal has to be sustained year after year, and at intense levels (the great majority of wolves removed regionally). Without the sustained removal, wolves quickly rebound in numbers and once again bring the prey populations back down to a “normal” equilibrium. There is also other recent research from pertinent ecosystems that needs to be outlined in this section (e.g., Gustine, D. et al. 2006. Wildlife Monographs 165; Hebblewhite, M. et al. 2005. Ecology 86:2135-2144; Ray, J.C. et al. 2005. Large carnivores and the conservation of biodiversity. Island Press, Washington, DC).

3.0 Principles

Recommendation: Principle 3.1 (“Wolves and their prey will be considered as integral parts of Yukon ecosystems”) needs to be re-iterated as a key principle in a revised Plan. However, it also needs to be expanded to state that “ecosystem integrity is the cornerstone of management of public lands and wildlife habitats in Yukon”.

Wolves directly and indirectly shape and influence various ecosystem components, and so are integral to ecosystems, almost by default. What follows from that fact, then, is a key question in wolf management: does society want a fully functioning set of ecosystems with most, and especially key, components present and interacting at abundances and distributions that result primarily from interactions among species and their habitats (i.e. ecosystem integrity), rather than from interactions driven by humans? Or, alternatively, does society want a set of managed ecosystems whose composition of species and habitats is influenced by a lack of some top carnivores and by enhanced ungulate populations? We argue in favour of ecosystem integrity, where ecological interactions are primarily occurring without strong human intervention

5.0 & 6.0 Non-Consumptive and Consumptive Uses of Wolves

Recommendation: The revised Plan needs to once again outline and explain the value of both non-consumptive and consumptive uses of wolves, bringing the information up-to-date with current government policies and regulations.

Wolves are symbols of wilderness, recognized world-wide for their persistence under adversity, and their demonstration that wild places still exist where humans can find the physical and emotional challenges that shaped our evolution. Even in that context they are worthy prey of humans, a challenge to hunt or trap that stimulates our ingenuity and perseverance. They have disappeared from a significant portion of their North American and Eurasian ranges, where human activities have modified the landscape, and northern Canada is now a refuge for the species.

Wolves are “valued” by people in diverse ways, and we need to recognize the diversity of those values, and the fact that they can be quite opposed in some circumstances. The search for a balance in potentially conflicting values is not new to our society. Aboriginal cultures showed

great respect, even reverence, for such an intelligent and strong animal, while also actively hunting wolves in some circumstances.

Recommendation: The section on non-consumptive uses needs to detail the value of intact ecosystems, with perceived natural populations of predators and prey, (i.e. “wilderness”) to the Yukon economy and ethos, both in the discussion and in the specific recommendation of the need for conservation of large wilderness areas.

Since the gold rush a key component of Yukon's identity, as viewed by its own citizens, is a “wilderness home”. Much of our home-grown literature and folklore revolve around the wilderness challenge, often symbolized by the wolf. That image has also dominated the view from beyond our borders. Yukon is now marketed heavily for its widespread and intact wilderness. This is the vision that drives our robust tourism economy, whether or not visitors actually experience the deep backcountry and its diverse wildlife. The perception that Yukon is wild, and that our wild animals lead lives driven primarily by natural forces, is central to the image that Yukon tourism projects.

The strength and appeal of the wilderness image, and the need to continue to make it real, is important to this Plan and to numerous other facets of our approach to public lands. Very specifically, this Wolf Conservation and Management Plan needs to give tangible evidence for that need by once again promoting recommendation 5.4 of the 1992 Plan: “Conservation areas, which provide habitat protection over very large areas, should be identified and designated using cooperative management processes”.

7.0 The Management of Ungulate Species

Recommendation: A revised Wolf Conservation and Management Plan needs to once again include a section on Management of Ungulate Species with strong recommendations for making progress in this area.

Managing wolves is mostly about managing ungulates, because the human interest in wolves is largely as a competitor for the same wild game species. Consequently, any management decision regarding wolf numbers should be made in the context of robust information about ungulate populations (distribution, abundance, factors limiting their productivity and survival), at the very least to assess whether perceptions of reduced ungulate populations are real, and to determine sustainable harvests of ungulates. The 1992 Plan made some excellent and strong recommendations regarding this topic. Some have been partially implemented, while others require much more attention.

Recommendation: Various Yukon governments (First Nation and Territorial) need to redouble efforts to gather reliable and complete data on wildlife populations and harvests, so that managers can adequately assess the sustainably harvestable component of ungulate populations.

Recommendations 7.1 (maintain ungulate populations at levels where wolf reduction is not necessary) and 7.4 (monitor ungulate harvests to provide reliable information on trends) of the 1992 Plan have been thwarted by lack of complete and current data on ungulate populations and harvests. This means that surveys to estimate ungulate populations need to be more frequent, and harvest data, especially that from First Nations citizens, need to be reported. There are some ungulate populations in Yukon where populations are below historical norms (e.g., Southern Lakes moose) or where the component of the population near human access routes has apparently declined (e.g., Teslin moose). In these circumstances hunters call for wolf control so that ungulates (notably moose) can become more numerous. But another reason for the ungulate population decline may well be heavy human harvest, especially in accessible areas. Managers, however, cannot make this assessment. They are only able to estimate the populations periodically and then react to the result, rather than getting complete harvest data annually and acting in advance of the next season to make harvest levels sustainable. All governments, and associated management agencies, need to cooperatively work to establish and implement a First Nations harvest database that can be joined with the non-First Nation harvest data to provide managers with the necessary information for pro-active management.

8.0 Wolves and Agriculture

Recommendation: The revised Wolf Conservation and Management Plan needs to reiterate the potential issue of conflict of wolves with agriculture (livestock production) due to proximity of ungulate habitats to livestock production areas, and provide recommendations for dealing with impending agricultural expansion, specifically the implementation of land zoning for agriculture.

The likelihood that agricultural land uses will expand in Yukon has increased significantly since the 1992 Wolf Management Plan was written, due to the economic benefits of increased local food production, and the expanding agricultural opportunities with a warming climate. Livestock production is a viable agricultural activity, and may be a more efficient way to derive protein for Yukoners than relying on wild ungulates. More wildlife habitats will inevitably become agricultural land in the near future. The Yukon Agriculture policy includes a provision that key wildlife habitats will not be adversely impacted by expanding agriculture, but this issue has not been strategically addressed and needs land use zoning to drive its implementation.

Land use zoning is central to this and many other conservation issues. Currently agricultural lands sit in a matrix of public lands where wilderness and wildlife values are being promoted in conjunction with numerous other values (minerals, oil and gas, residential, etc). In other words every interest is supposedly being accommodated on every landscape, in a piecemeal fashion. This is a recipe for disaster, because most land management and conservation objectives can only be achieved at certain scales, and wildlife persistence is a key example. At some stage, agricultural (and other) land uses will necessarily remove ungulate habitat to the extent that the ungulate populations are reduced. As has been demonstrated elsewhere, wolves may become an issue because of the reduction of their wild prey base and their increasing access to livestock. What is required is a strategic comparison of agricultural land capabilities to wildlife

habitat suitabilities and key areas, so that the geographic extent of the overlaps and hence likely conflicts can be fully recognized. Then lands need to be strategically zoned (ideally through Regional Land Use Planning processes), so that society has a clear vision of where certain things can happen and where they cannot. Certain areas need to remain as wildlife habitat; allowing agriculture will result in the loss of certain wildlife populations. Other areas have to be set aside for agriculture (as has already happened), with the necessary result that they lose much of their value as wildlife habitat. This ongoing and growing trade-off needs to be brought forward and addressed explicitly. The vision of Yukon as wilderness, with intact wildlife habitat from end to end, is no longer true. However, the wilderness that does truly exist will be better off when lands are clearly zoned for various uses, and wildlife habitats can get the increased level of security that such zoning can provide.

9.0 Wolf Reduction Programs

Recommendation: The revised Wolf Conservation and Management Plan should explicitly state that large-scale removal of wolves from the ecosystem, through a government funded program, with the goal of enhancing ungulate populations will not be considered a routine or frequent wildlife management action, and that it will only take place under certain restrictive conditions.

Wolf control, if it involves removal of the majority of wolves regionally, can sometimes result in an increase in ungulate populations. However, it is a poor choice of management approach, ethically, ecologically and economically. Ethically, it is highly questionable that public (i.e. government) resources should be deployed to kill a large number of animals so that a small sub-section of human society (i.e. hunters in a particular region) can benefit by then being able to kill a set of other animals. Ecologically, there is a high likelihood for wolf control to lead to shifts in ecosystem structure and function, with reduction in habitat quality for various species that benefit from the control that wolves exert on ungulate numbers. Economically, wolf control would be a huge drain of government resources, often using helicopters in remote settings. The investment would have to be repeated year after year without rest because, when the control stops, wolf numbers will rebound very quickly and any increase in ungulate numbers will be very quickly reversed. Wildlife managers are constantly facing shortfalls in funding to undertake the numerous population inventories and habitat surveys that are mandated by various agreements and legislation. Government cannot afford to divert a large proportion of the budget of the Ministry of Environment to killing wolves; the resultant decline in management of other wildlife and ecological values would be heavy. There is another potential economic cost to wolf control, - the tourism industry. The Yukon tourism industry is built on an international and national image of wilderness and untrammelled nature; this is a huge draw for people from heavily populated regions. The association of an ethically unjustified and ecologically upsetting wildlife management activity with the Yukon is likely to tarnish the image and reputation of this Territory abroad, and could lead to tourism boycotts by some advocacy groups.

Recommendation: The revised Wolf Conservation and Management Plan should continue to include the strong conditions before there is any consideration of a wolf control program (Section 9.1), and should not waver from these conditions.

The 1992 Plan allows consideration of wolf control if an ungulate population is threatened with extinction. There are circumstances where ultimate causative factors other than predation drive a population to small size (e.g., habitat loss and fragmentation; severe weather events). In rare circumstances predator control may provide a window of opportunity for managers to change other limiting factors (e.g., habitat quality), or for a population to recover from a massive die-off. We suspect that these instances are rare, and recommend that they be adequately researched and documented before a wolf control program is set up.

The 1992 Plan also would allow for consideration of wolf control when ungulate population(s) require strong conservation measures such as implementation of the total allowable harvest provision of the Umbrella Final Agreement (UFA; 16.9.0). The mere demonstration that human harvest of an ungulate population has become unsustainable should not be a sufficient condition for starting wolf control. Instead, managers should first implement stricter controls on human harvesting, starting with the reduction in non-First Nations harvest (as per the arrangement under the total harvest allocation clause of the UFA). In such cases, the harvestable surplus of a game population would be insufficient to cover all hunting demands, and the subsistence needs of First Nations members would get precedence in harvest allocation. To date the total allowable harvest provision has not been implemented, and the main impediment is the lack of complete ungulate harvest data. Without those data managers cannot assess whether or not the total human harvest exceeds a sustainable level. This emphasizes the need to implement formal harvest reporting by First Nations hunters. However, the goal of full harvest reporting is to avoid any likelihood that total harvest might become unsustainable (i.e. to avoid any need for total harvest allocation by pro-actively implementing more restrictive harvesting especially by non-First Nations citizens).

Recommendation: The revised Wolf Conservation and Management Plan should once again include a comprehensive suite of recommended guidelines for the implementation of any wolf control effort, including the adoption of an adaptive management (experimental) approach, a set of population goals and measures of success within declared time periods, the pursuit of only one such wolf control action at one time, and strong inter-agency consensus on the culling plan.

10.0 Public Education and Conflict Resolution

Recommendation: Public education and information, with the implicit goal of minimizing potential conflicts regarding wolf management, will continue to be necessary and useful components of a Conservation and Management Plan. Specifically, the revised Plan should direct the development of educational materials that will succinctly explain: the quantified rates of ungulate mortality resulting from wolves, other predators, and

humans; the limits to total human harvest in a wild ecosystem; the role of wolves in ecosystem structure; the costs of a wolf control program.

Wolf control is a contentious issue, fraught with ethical and practical concerns. Clear educational information is crucial to people trying to develop an understanding of the issue. The summary of wolf management programs in nearby jurisdictions, prepared for this government review process by Dr. Don Russell, has been a positive step in informing the public. The topics listed in our recommendation deserve explicit attention.

11.0 Research

Recommendation: Although Yukon wolves are well studied, a number of the numerous research recommendations in the 1992 Plan still warrant attention. In particular we feel there is a need to provide: a summary of the non-lethal approach to wolf control (fertility manipulation) and an assessment as to whether further research is required on its efficacy; a review of the potential effectiveness of wolf pup removal from dens as a wolf population control approach (starting with a modeling approach); ongoing publication of known human kill rates of ungulates and their predators along with modelled estimates of wild predator kill rates of ungulates (point 11.3 of the 1992 Plan).

There are numerous unanswered questions about wolves and their prey, but a few stand out in the context of public debate over access to ungulates for human harvest. We need to have a clearer understanding of the potential value and cost of all potential wolf population control approaches. Some research has been done in Yukon on fertility control, and a revised Plan needs to include a quick review of its value. Removal of wolf pups, when they are very young, is another potential tool, but its efficacy is questionable given the apparent need to remove at least 30% (perhaps >75%) of a wolf population to see any response in an ungulate population. This process could be modelled using information on kill rates by packs of different sizes in Yukon. Although more a question of long-term management rather than research, the annual compilation and publication of data on who kills what would help clarify the debate for many citizens. This initiative is however also thwarted at present by the lack of reliable human harvest data.