BRIEF to the

SELECT COMMITTEE on the

SAFE OPERATION and USE of OFF-ROAD VEHICLES

Prepared by

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WILDLIFE CONSERVATION SOCIETY
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PURPOSE

Wildlife Conservation Society Canada[1] (WCS Canada) thanks the Select Committee for the opportunity to provide some specific input on the issue of the Use of Off-Road Vehicles (ORVs) in Yukon.

The purpose of this Brief is to address the potentially harmful effects of ORVs on natural ecosystems and wildlife populations, and put forward some constructive recommendations on what could be new Yukon government policies to address the issue. The Brief has two sections: (i) a short synopsis of the now well-documented science demonstrating effects of ORVs on fish, wildlife and their habitats; (ii) a set of recommendations, with discussion, on new policy and regulatory approaches to address the emerging problems with ORVs in the Yukon backcountry.

THE SCIENCE of ORV IMPACTS

There is a large literature on the impacts of ORVs on wildlife and natural areas. It is beyond the scope of this document to fully summarize or detail the findings. However, a few key points emerge:

- The effects of ORVs are pervasive, often harmful, often well documented, and found in most places this motorized transport is used. Many jurisdictions in Canada have recognized these facts and have moved to reduce and mitigate negative consequences through education, planning, and regulatory regimes. Yukon is one of the few that has not taken action so far.
- There are negative consequences for a number of the wildlife species of particular importance to Yukoners, including moose (Colescott and Gillingham 1998), elk (Creel et al. 2002, Naylor et al. 2009), caribou (Seip et al. 2007), and bison (Fortin and Andruskiw 2003, Borkowski et al. 2006). At high latitudes such as where we live in Yukon, the consequences are likely to be worse because of the additional difficulties these species experience in balancing energy acquisition and energy needs. These species are key sources of human food and wildlife viewing subjects, so there is particular need for society to act carefully when planning and managing their habitats and populations.

[1] Wildlife Conservation Society Canada was established in May 2004 as a Canadian non-profit organization with a mission to conserve wildlife and wild-lands by improving our understanding of and seeking solutions to critical problems that threaten key species and large wild ecosystems throughout Canada. We implement and support comprehensive field studies that gather information on wildlife needs and then seek to resolve key conservation problems by working with a broad array of stakeholders, including local community members, conservation groups, regulatory agencies, and commercial interests.

- The issue is not new in Yukon. The Ministry of Renewable Resources (now Environment) and the Yukon Fish and Wildlife Management Board have been concerned about the issue for many years, and have commissioned studies and published reports detailing the potential problems, and suggesting some solutions (Loeks 1997 & 2000; Christie 2003) including those we detail in this brief. The key wildlife management agencies in Yukon, whose expertise government should welcome, are urging government action now.

What are some of the effects of ORVs on Wildlife?

The scientific literature includes some reviews of the scope of impacts on wildlife and natural areas (Yeomans 1999, Davenport and Switalski 2006, Ouren et al. 2007), and these can be classified as follows:

- Increased Mortality – direct death through collisions, and chases, and increased death rates to wildlife living near ORV travel routes because the improved access increases both legal and illegal harvest. Populations of some wildlife species are severely reduced in some areas following the development of ORV trails. Populations of some nesting birds, insects and plants are reduced because of trampling and crushing by tires and tracks (e.g., plants in sand dunes; Groom et al. 2007)
- Disturbance – noise, odour, and direct chasing of wildlife causes them to move away from the habitats they had initially chosen to occupy. This disturbance is far from trivial as it can result in substantial energetic costs (energy used to move and run away, often in snow), losses of food (forced relocation to poorer foraging areas, and reduced food intake). The results go beyond disturbance to short-term individual behaviour, and can accumulate to cause reductions in birth rates and reduced survival of adults in winter (e.g., through higher risk of predation). When ORV routes cut through of come close to high quality habitats (e.g., foraging, denning or nesting habitats), portions of these habitats can effectively be of little future use to the wildlife.
- Habitat modification and destruction – ORV travel routes, and the downstream effects they have at stream crossings, can destroy localized habitats for certain species by changing the physical structure of snow packs, land surfaces and stream beds, and by creating barriers to movement of certain species both overland and up and down streams. ORV tracks in wetland and tundra habitats often cause deep ruts, and destroy the structure of the soil and organic layer with results that take decades to reverse. An extreme example of habitat destruction is the heightened risk of fire from sparks produced by ORVs in some seasons.

- Pollution – the exhaust from ORVs, especially two-stroke snowmobiles, is highly polluting, and can add a significant chemical toxic load to soils and by runoff to streams.

THE POLICY OPPORTUNITY

Yukon legislators are now faced with exciting opportunities to act in visionary ways with regard to government policies on Off-Road Vehicle use. With significant new policies, Yukon decision-makers can sustain and enhance our Territory's worldwide reputation as a true wilderness destination with world-class wildlife viewing; a reputation that will continue to diminish if ORV activity goes unregulated. Politicians can capture the ground-swell of public opinion now emerging in favour of responsible ORV use, as evidenced by new citizen organizations such as Trails Only Yukon Association (TOYA). Government leaders can harness the energy and commitment of their civil servants by validating the civil servants' scientific knowledge, training and expertise, or risk worsening morale through inaction.

WCS Canada sees new policy opportunities in three categories: education, land planning, and management regulations. We emphasize our recommendations in bold, and provide a discussion of each.

Education:

The fact that ORVs can be detrimental to wildlife and local ecology may not be obvious or clear to many ORV users. The existence of such a knowledge gap has been documented in a number of studies including one in Yukon (Yeomans 1999). Most ORV users are open-minded enough to listen to the evidence, think about the issue, and act responsibly, if and when they are given the information. However, there is currently no particular incentive for ORV riders to learn more about the impacts of their sport on nature, so WCS Canada believes that government, and other groups, need to intervene in the process of educating ORV users about the potential risks and consequences of their sport, and how to mitigate these risks and drive responsibly. **WCS Canada recommends that all first-time ORV users should be required to take a course whose curriculum, along with basic skills and safety information, would include information on the potential impact of ORV use on wildlife and Yukon ecosystems, and ways of riding responsibly to reduce and mitigate those risks.** Other jurisdictions have chosen to implement such courses. Their underlying justification is that the wonderful joy and freedom experienced by riders must come with certain responsibilities to the wildlife whose habitats and individuals ORVs inevitably affect. In the long-term education is likely the most cost-effective approach to ORV management, and it will be essential to bolster the public's adherence to regulatory and legal standards.

Land Use Planning:

WCS Canada recommends that some large regions within Yukon should be legally zoned as ORV-free zones, where the operation of all-terrain vehicles and snowmobiles is not allowed. The dominant legal definition of wilderness (e.g., in the United States of America Wilderness Act) is land and water untrammelled by motorized vehicle traffic. By this definition one could argue that the majority of Yukon is now no longer wilderness, because motorized vehicle access is widespread and common-place. Wilderness areas are rare in the world, and those that remain are becoming more cherished by a substantial sector of society that craves the simplicity and spiritual solace these areas provide. Given that motorized ORVs will always have some effect on wildlife behaviour and population size, no matter how responsible the behaviour of the drivers or the foresight of the regulatory regime, it is then even more necessary to keep some regions unaffected by ORVs. These ORV-free zones would act as refuges for wildlife populations, as ecological benchmarks where natural processes could continue and be monitored for comparison to regions where our activities are more intensive, and as sources of wildlife which can propagate surrounding regions.

The primary tool for achieving wilderness ORV-free zones would be strategic land use planning. The Yukon Land Use Planning Council currently leads the process of developing strategic land use plans in the Territory, as directed by the Umbrella Final Agreement. These planning processes are therefore a logical place to discuss the concept of ORV-free zones. WCS Canada believes that Yukon Territorial and First Nations' government policy and direction to the Planning Commissions should include the need to look for and delineate ORV-zones within the protected areas identified in strategic plans. This approach, though good, is probably insufficient, because many planning options will be lost in the relatively long time before many of the Planning Commissions will be established. In order to seriously address the issue of ORV-free zones, or wilderness zones, government needs to take the lead in a Territory-wide assessment of opportunities and options for such zonation. **WCS Canada recommends that Yukon governments develop a Territory-wide mechanism to collectively address the opportunity for designating ORV-free zones.**

Regulatory regime:

WCS Canada recommends that the Yukon Territorial government develop and pass legislation that would provide land management agencies with the regulatory tools to control area-based timing, locations/routes, and intensity of ORV use. Much of the acknowledged damage to ecosystems, wildlife habitats, wildlife behaviour and wildlife populations can be partly reduced and mitigated by responsible controls on where ORVS are allowed to travel, when they are allowed to travel in certain sensitive areas, and how many of them are allowed in an area at a time. Particular

regulatory tools include: (i) restricting ORV use to existing or community-planned trails (Trails-Only); (ii) closing sensitive habitats such as wetlands and tundra to any use unless it is along existing trails; (iii) allowing for seasonal closures of certain trails / areas to avoid disturbance during particular sensitive times of year; (iv) restricting stream and river crossings to avoid damage to fish habitat by well-planned trail routing or mandated culvert and bridge construction. Such a legal regulatory regime has been instituted in many North American jurisdictions to deal with ORV issues. It is a necessary adjunct to public education of ORV users on responsible riding behaviour, because many of the specific regulatory tools require time-, area- and site-based controls which cannot be generalized in an educational setting or curriculum.

A common criticism of legal regulations is that they are difficult to enforce, and so will have little impact. This is not a good argument, mainly because it assumes that most ORV riders would be unwilling to act responsibly thereby resulting in little impact of the regulations. There are many regulatory regimes in society that lack policing in all places at all times. They are nevertheless effective because their existence in law proclaims a general standard of social behaviour to which most citizens adhere because the law is sufficient deterrence to bad behaviour or because the law is acknowledged by most to be well-intentioned and beneficial to citizens. This can become the case with ORV use, especially with sufficient education and a clear, well-documented, and well-explained regulatory regime.

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