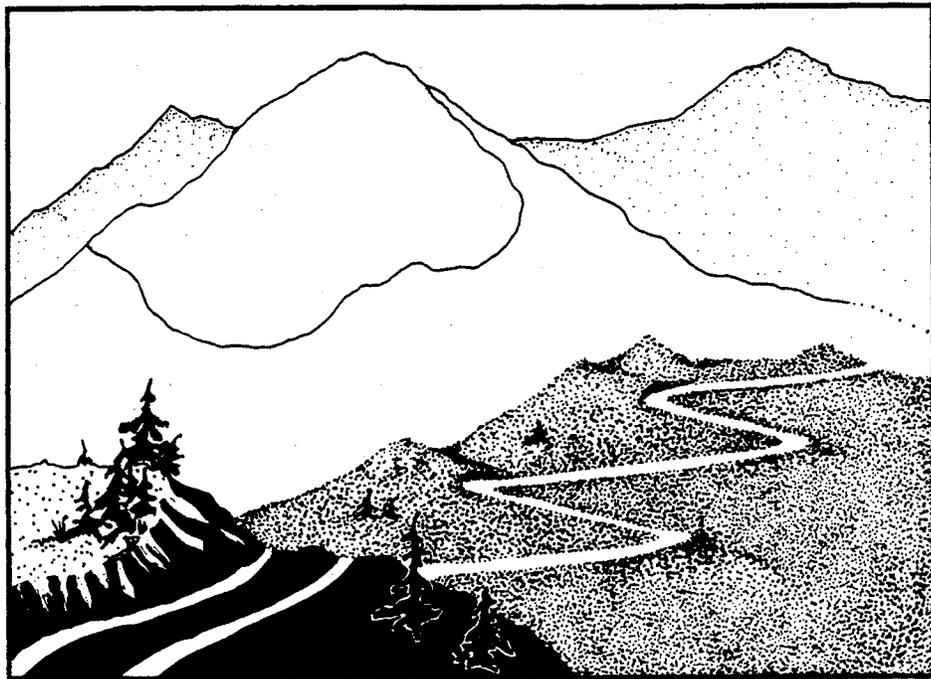


Access-Related Impacts of Backcountry Roads to Wildlife and Management Approaches to Mitigate Them



Habitat and Research Section
Fish and Wildlife Branch

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Renewable Resources

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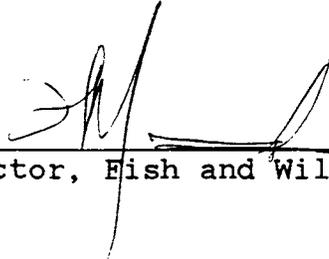
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1. INTRODUCTION

A Yukon-wide inventory of roads and trails indicates that there are 602 of them on record, all of which are available in varying degrees for use to access wildlife populations for the purpose of hunting. The standard of these roads and trails ranges from winter trails to all-season roads suited for use by vehicles typically used on public highways. These roads and trails were built to support a wide range of resource operations but mineral exploration and development are the two main activity types. These roads and trails are referred to here as backcountry roads for convenience and to distinguish them from the mainstream road and highway system.

Road access to mineral claims which are undergoing exploratory work is viewed as part of the general lifestyle in the Yukon. This attitude is reinforced by the importance of mining to the territorial economy and the fact that the right to access mineral resources is actively promoted by industry and some government Departments (Indian and Northern Affairs Canada 1981, Environment Canada 1982). The operating environment for mineral rights holders who want to construct access roads for work to be done on claims is thus very favourable from the perspective of the claim holder. The Regional Resource Roads Program¹, which was formed in 1986, provides funding support for constructing new roads and upgrading existing ones. This program has an annual operating budget of \$2.5 million and applies to all resource development sectors.

¹This program was renamed in 1988 to Resource Transportation and Access Program (RTAP).

Any approach to controlling access in order to protect wildlife resources must be considered against the background of resource development interests, priorities and the attendant rights to access resources. These background factors tend to appear overwhelming and they can prove unsurmountable if the response to every road proposal is one of rejection. Other feasible approaches need to be examined, particularly if the main objective is to protect a wildlife population from overhunting due to improved access onto its range. This paper considers the approaches that are available to the Department through the normal environmental screening process and measures that can be implemented through legislation that the Department administers, specifically the Wildlife Act.

Our objective is to critically review the influences that backcountry trails have upon wildlife and to examine approaches for reducing their adverse effects. We believe that this initiative has the support of a significant number of hunters and the general public. This belief is confirmed by a 1981 survey conducted by the Department in which hunters were asked to express their views on the use of all terrain vehicles (ATVs) for the purpose of hunting. The majority (85.6%) of resident hunters, based on a sample size of 1800 returned questionnaires, were in favour of A.T.V.'s being restricted in some manner, with 43.0% of hunters favouring eliminating their use entirely.¹ Further evidence of support for

¹ Yukon Resident Hunter's opinion survey, 1981; Dept. of Renewable Resources.

regulation of vehicles, including conventional four-wheel-drives is found in the Select Committee Report on Renewable Resources. The specific recommendation called for a ban on the use of ATVs and 4 x 4s in remote areas recently made accessible by new roads and restricting them in areas of sensitive environments.¹

Access management for wildlife conservation is an important objective within the Department's program. The public sentiments referenced in the foregoing paragraph remind us of the admonition that:

It is the clear duty of Government, which is the trustee for unborn generations as well as for its present citizens, to watch over, and if need be, by legislative enactment, to defend the exhaustible natural resources of the country from rash and reckless exploitation. (Pigou 1946).

In June 1988 the Wildlife Management Board decided not to approve new regulations pertaining to access management until an overall policy on that subject has been developed. A comprehensive access management policy has been drafted and submitted to cabinet for consideration (Appendix 1). This report provides a background and detail to the problems and issues that are addressed in the policy.

¹ Yukoner's views on managing our renewable resource; A report by the Select Committee of the Legislature, 1986.

2. IMPACTS AND BENEFITS OF NEW ACCESS

2.1 Overharvest

Wildlife populations in the Yukon are managed to provide a sustained yield harvest. A sustained yield is the crop that can be taken year after year without causing a population to decline (Coughly 1976). Wildlife managers monitor wildlife population trends and harvest levels to ensure that management practises reflect sustained yield principles. Typically, the rate at which animals are removed from a population by hunting remains relatively constant if accessibility to the range of that population is restricted from the road and trail system by distance and rugged terrain. New access into formerly remote areas sets the stage for an escalation in the harvest rate, leading to wildlife population decline. Examples where this cause and effect relationship has been noted in the Yukon are given as selected case studies in Section 3.3.

The Department's view is that it is possible in most cases to break the cycle of overharvest followed by decline without halting all road and trail construction. We are able to reliably predict those cases where overharvesting is likely to occur because the factors in this "cause and effect" are generally known. Our contention is that the controlling measures which are brought into force in a given case should reflect the minimum level of intervention that is necessary to meet an explicit management objective. In those cases where it is predicted that improved access into the backcountry will lead to overharvest of big game, effective intervention can be imposed by

regulating the use of vehicles for the purpose of hunting. This does not mean that the direct physical effects of road construction upon habitat will be ignored. We will continue to evaluate all of the impacts of road construction upon the Department's interests.

A response that the Department has used in the past to address over harvest, engendered by new or improved access, is to prohibit hunting for a specified distance to either side of some roads. This establishes a no-hunting corridor which deters most hunters from taking advantage of easy access to big game. In two instances (Annie Lake Road and Takhini Hot Springs Road) this prohibition was imposed for reasons of public safety. In the case of the Dempster Highway Corridor, the ban on hunting had a specific objective of restricting the harvest of caribou and to minimize related disturbance to the herd. Corridors have been beneficial and the Department will continue to selectively employ this tool. However, we do not envision the need for no-hunting corridors along every road and trail. Further, the creation of no-hunting corridors is not effective in managing disturbance that result from vehicles that do not require an improved running surface. Accordingly, the Department proposes to retain the selective use of no-hunting corridors; but also requires the ability to directly regulate the use of vehicles for hunting. As a separate but related issue, the Department requires the ability to regulate the use of vehicles in situations where wildlife is especially vulnerable to disturbance.

2.2 Disturbance

Wildlife populations are not only affected by the increased harvest

that is associated with backcountry roads. They are also affected by the disturbance that traffic and other related activities cause to normal range use patterns. In this context "disturbance" means the avoidance response of wildlife to vehicles and other forms of human activity associated with roads. Although some species become at least partially habituated to some activities and reduce their reaction to it, this accommodation does not occur in every case. Moreover, some species have traditional patterns which, if interrupted, can lead to permanent abandonment of their range with the resultant reduction of the population size, or perhaps the elimination of that particular group of animals. This has been particularly well documented in the case of mountain sheep (Geist, 1975; Horejsi, 1976; Lenarz, 1974; see reference list for additional studies).

An overview of the effects that backcountry roads have upon wildlife was compiled for Environment Canada in 1983 (Environmental Management Associates 1983). The Department does not propose to implement measures to mitigate every conceivable potential impact through an access management plan. The focus will be on resolving significant disturbance to wildlife and wildlife habitat that we can reliably predict. Where a proposed road or trail threatens to encroach upon sensitive habitat, mitigation may be required in the form of route changes and/or restrictions to the timing of use of the road. Such provisions are envisioned in cases where, for example, a road is routed through a caribou calving or sheep lambing area, or where a mineral lick is close to the right-of-way. A management prescription

which only focuses on hunting may not be sufficient in such cases; therefore measures to reduce disturbance to the habitat and wildlife will be proposed in the management strategy.

A further consideration in this regard is the potential benefit in the form of opportunities for nonconsumptive use of wildlife. Such uses consist of viewing for personal gratification by residents and tourists, as well as by clients of businesses which are formed to promote wilderness excursions. Insofar as non-consumptive uses are concerned, trade-offs need to be struck between the beneficial effects that roads provide and the adverse impacts in the form of disturbance that can occur from the close approach to wildlife for the purpose of viewing.

2.3 Direct Impacts to Sensitive Habitat

Every new road or trail occupies an area which was previously wildlife habitat. In many cases, this elimination of these restricted amounts of habitat is not a serious matter, but in some cases, it can be. Many roads and trails follow valley floors and floodplains of watercourses, because the soil conditions and level terrain make construction in these locations relatively easy and cheap. However, these valleys are also the most productive ecosystems and many are key winter ranges for moose, caribou, many furbearers and small game species.

Another terrain type preferred for road construction, because of lack of permafrost, is south-facing slopes. Such slopes are often winter

ranges for mountain ungulates such as sheep or goats because these areas usually have less severe snow conditions than other slopes, hence making better habitat from the perspectives of availability of vegetation as well as in relation to the thermal regime experienced by the animals. Many of these winter ranges are associated with mineral licks which constitute another critical habitat feature, the destruction of which should be prevented. Elimination of such critical habitat areas would be limiting factors in the maintenance of wildlife populations. Although such areas are often small in extent compared to the year-round range available to a population, they are nevertheless important limiting factors.

It is the Department's objective to prevent the destruction, or infringement of, these key habitat areas. This will be accomplished by effective interventions through appropriate committees (Land Use Advisory and Regional Environmental Review Committees) to change, where possible, the routing of the proposed roads to bypass important wildlife habitat areas.

2.4 Landscape Effects

We frequently see the effect that backcountry roads have upon the landscape. Concern about these changes are often raised by holders of big game outfitting concessions, wilderness outfitters, and others who feel that the attractiveness of the wilderness is an environmental characteristic worth preserving. To many clients of outfitters, the wilderness setting of their hunting excursion is as important as the hunt itself. Backcountry roads which were built for mineral

exploration are pointed to as examples of deteriorating quality of the natural environment. These critics are not necessarily against resource development, realizing that the territorial economy is highly dependent upon the extraction of all categories of natural resources. They can accommodate to the development of a new mine, justifying this change based on the overall benefits that accrue to society. However, they are often critical of new roads and trails that are constructed for "once-only" or short-term exploration work, wherein there is considerable environmental degradation while the potential benefits are merely being "explored for".

There is a tendency for backcountry trails to be extended beyond their original destination by increments and for other trails to be built laterally from the original route. This benefits mineral exploration but wildlife populations in the area become susceptible to overharvest and the effects upon the landscape escalate in proportion to the amount of area covered. The network of trails which evolves from a single point of entry produces a shadow effect, often with effects far greater than originally predicted. Managing this type of "incrementalism" is difficult or impossible in many cases after the initial access route is in place. The incremental proliferation of roads and trails requires an integrated, planned approach in order to minimize their adverse effects, while allowing sufficient leeway for the beneficial impacts to be fully realized.

2.5 Redistribution of Hunting Pressure

Road access to formerly inaccessible areas can have beneficial effects if it redirects hunting pressure away from wildlife populations in

danger of overharvest or already undergoing decline. However, there can be no lasting benefit if the harvest rate in the new area escalates to a level where the overhunting/decline cycle is repeated. To prevent this from happening, a management plan, including management of access, should be implemented before the harvest becomes excessive.

Measures intended to limit harvests will generally be ineffectual if they do not apply to all hunters. A frequent complaint raised by non-native hunters is that they must bear the brunt of harvest regulations while the take of big game by Native hunters (whose rights to hunt for food are protected under the Yukon Act (s. 17(3)), is unchecked. At present, the Department seeks voluntary compliance of the Native hunters through informal management agreements with the bands. Subsequent to the settlement of aboriginal land claims, the hunting activities of Native and non-native hunters will be guided by sustained yield principles. The informal agreements concluded at this time are seen as temporary measures which may be replaced with more explicit measures after land claims are settled.

The Department will examine the beneficial as well as negative aspects of backcountry roads. The prescription in each case will reflect how wildlife management can capitalize on new hunting opportunities but always within the limits of sustained yield.

3. OVERVIEW OF ROADS AND TRAILS

3.1 Evolution of the road system

Roads have played a pivotal role in Yukon's development, particularly since 1955 when transportation by water ceased to be of any major importance and emphasis switched to road-based transport. Prior to 1955, roads and trails complemented the river boat and barge routes. Overland routes provided access from supply centers on navigable waters to mining operations in the hinterland. By 1914, approximately 1400 miles of such roads had been constructed by persons and groups having an interest in mining and freighting (Sypher:Mueller 1986).

The evolution of the primary transportation system was founded upon the proposition that road access is the cornerstone of resource development and that absence of transportation equates with lack of progress. While this concept holds up insofar as the primary road system is concerned, it is arguable as to what extent it is true in the case of backcountry roads whose function is mineral exploration, as distinct from resource development. This is particularly true in the present situation where the net social benefits from exploration roads are largely undetermined.

Alternatives to overland transport often do not receive serious consideration when road access to potential resources development projects is proposed. There is little incentive to consider alternatives in an economic environment which focuses on providing major subsidies for road construction. The current program to

stimulate road construction compliments the general approach originally put forth by the Northern Roads Policy. An important principle of the Northern Roads Policy was that no area of potential mineral development would be more than 200 miles from a permanent road (DIAND 1965). Just as the primary road system was seen to stimulate resource development, backcountry roads and trails are now being promoted for access to mineral claims that are being explored.

There continues to be a strong commitment on the part of industry and government to continue to promote the construction of new roads to support resource exploration and development. This underlines the need to examine and implement measures that can be taken to counter the adverse effects of resource roads. In particular, there is a need to consider the values associated with maintenance of the natural environment in light of the recent trend toward more road and trail development.

3.2 Recent construction

The land use permit and RTAP files were examined to determine the number of newly constructed roads and improvements to existing roads. The Department began to keep a systematic record of road construction projects in January 1987. During the period from January 1 1987 to June 30 1988, there were 203 km of new access road constructed and 399 km of existing roads and trails were repaired. This tally does not include all roads constructed on mineral claims because public records are not kept on work done on claims which are not subject to land use permits, or for which there was no financial contribution

through RTAP. There are 26,745 placer claims and 53,648 quartz claims in the Yukon (B. Baxter, pers. comm.¹). Thus, approximately 14,120 km² are outside the sphere of the normal land-use regulatory procedures that we rely upon for compiling information on road building activity.

We do not have sufficient information to comment on how the above amount of construction compares with previous years or what constitutes average conditions. It is apparent that a considerable amount of road construction is taking place and that the Department should have measures in place for dealing with access-related problems. The only recourse open to us at the present time is to oppose road construction projects which pose a threat to the Department's interests. This approach results in open conflict with the proponents of development, which can be very counter-productive, and it is difficult to defend a position whose success depends upon rejecting every development proposal on the grounds that wildlife populations will suffer from overharvest. The Department must develop access management strategies to deal with the effects of roads upon wildlife without necessarily having to resort to a confrontational response in every case.

¹Regional Manager, Mineral Rights, Northern Affairs Program

Certain areas of the Yukon receive more resource development pressure than others. Increased developmental pressure often follows along the course of an initial road being constructed and subsequently a branching process takes place as spur roads fan out laterally from the original route. Examples of this are in the Wheaton River Valley and along tributaries of the Yukon River downstream of the Stewart River. Such a network of roads and trails makes wildlife populations susceptible to local overharvest because much of the range can be accessed, with relative ease, by vehicle. Roads associated with the forest industry have a similar effect. The rejuvenation of forestry operations in the Watson Lake area have resulted in the construction of additional roads along the Rancheria River. The forestry road network in the Liard River Valley is targeted for a major expansion, which will result in road access being extended to False Pass Creek.

Resource roads are an operational necessity and it is unlikely that overall road construction will diminish significantly. The adverse effects to wildlife will continue to escalate if the problems associated with access are not managed. As noted above, there is a sufficient understanding of "cause and effect" to reliably predict how wildlife are affected. To be more specific, the following examples illustrate how these effects have been identified in four cases.

3.3 Case Studies

Nahanni Range Road

Completed in 1965, the Nahanni Range Road links the Canada Tungsten mine with the Robert Campbell Highway at Km. 108. It passes through

the Logan Mountains for a distance of 211 km, following the Hyland and Little Hyland Rivers for about 170 km. This route transects the range of the Nahanni caribou herd.

When the road was first opened to traffic, concentrations of up to 300 caribou were reportedly observed in the upper Little Hyland Valley¹. We do not have a record of the harvest, but reports from persons who regularly travelled the route indicate that the Nahanni Range Road became a popular destination for caribou hunters. By 1973, caribou were seen only occasionally in this part of the Hyland Valley and hunting activity focussed on two large mineral licks near the road. The practice was to wait at the roadside until some caribou came to the lick.

Road access into the upper Hyland resulted in a harvest (including poaching by mine workers and legal hunting by Native people of the Watson Lake Area) between 1965 and c. 1973 that exceeded the recruitment rate of the herd, causing it to decline in numbers. This experience on the Hyland system has been typical of the radical reduction or elimination of the local woodland caribou populations as road access is provided in the hinterland. This will continue to

¹Based on personal communications of former Watson Lake residents Roy Watson (d.) and Don McIntosh (d.).

occur in the Yukon unless a competent access management strategy is implemented.

Long Lake Creek Road

More recently, in August 1987, Morengo Resources Inc. acquired a land use permit authorizing construction of an 8 km mineral exploration road north from Km. 32.7 of the Nahanni Range Road. This road leads into mountain goat range at the head of Long Lake Creek.

The road was constructed to a standard which allowed passage of four-wheel-drive vehicles which the company required to transport a diamond drill to hard rock claims at 1600m elevation. The Department was aware of the presence of a small goat population (of 9 to 12 animals) in this area, but had no means of imposing hunting restrictions, as the hunting season had already begun. The Department opposed the construction of any form of overland access, anticipating that hunters would quickly respond to the new road. Morengo Resources personnel subsequently informed the Department that a hunting party practically followed the caterpillar tractor being used to construct the road. Three goats were reportedly shot in this area, one of them less than 100m from the drill pad. The wildlife management subzone where this incident occurred has since been closed to hunting of goats.

This example is cited to demonstrate how quickly an overharvest of wildlife can occur. It also shows the need for a response capability that allows access management to be implemented without delay. Had that capability existed, we could have imposed controls to protect

this goat population. Ironically, in this case, this road failed to fully meet the requirements of the company and, when it became impassable, a helicopter was used to demobilize the drill.

Montana Mountain

This area, south of Carcross, has been subjected to mining activities for many years. Prior to the First World War, two small mines operated on that mountain (Big Thing and Caribou). The latest development was the Venus Mine on Windy Arm. Roads were constructed to facilitate these developments and gradually a network covered most of the Montana Mountain area.

The Mountain provides excellent habitat for sheep, goats and caribou. Former Wildlife Branch employees (K. Squirechuck (d.), J.B. Fitzgerald) remembered there being a healthy sheep population in the area, goats and caribou were also present. There are no estimates of previous population sizes. However, the quality and quantity of sheep habitat available, compared to other undisturbed sheep habitats (such as the adjacent Grey Ridge), would support a population of at least 50 sheep. Long-time use of this mountain by hunters, recreationists and miners, facilitated by the network of roads and trails have essentially converted the mountain into an area devoid of big game. In recent years there have been only occasional sightings of sheep; goats are occasionally seen in non-accessible portions of this range near the British Columbia border and along Bennett Lake. This is inspite of the fact that both species have been protected from hunting by non-native hunters for many years. Caribou

have also declined and their hunting is restricted by a special permit system.

"Granite Lake Road" south of Haines Junction

In 1981, an exploration road was constructed from the Haines Road, south of Haines Junction, in an easterly direction toward Granite Lake in the Dezadeash Range.

This road extended into the subalpine shrubzone above timberline, thereby making high quality moose habitat accessible to hunters. The effect of this road upon the local moose population was dramatic. Most of the 17 moose shot by hunters in Game Management Zone 7 (7-3) in 1981 came from that road. As is often seen in such circumstances, the harvest of moose dropped sharply in subsequent seasons because the local moose population had declined, and/or moose had moved to areas with less disturbance. This increased harvest of a local moose population, already under considerable pressure from predators (wolves and grizzly bears), was a contributing factor to growing public pressure to severely restrict moose hunting in all of Game Management Zone 7.

4. LEGAL BASIS FOR CONTROLS

4.1 Territorial Lands Act and Regulations

Crown lands under federal government control in the Yukon Territory are administered under the Territorial Lands Act and the Territorial Land Use Regulations. The Act (s. 4) determines that territorial lands may be disposed of subject to conditions, and at s. 3.2 enables the making of regulations respecting the protection, control and use of the surface of the land. The Yukon Quartz Mining Act and the Yukon Placer Mining Act are expressly protected from the provisions of the Territorial Lands Act (s. 3(3)). The exemptions gained under s. 3(3) mean that work done on claims need not comply with environmental conditions, that would otherwise be available, to protect the surface of the land.

The Territorial Land Use Regulations determine that certain types of activities constitute land use operations which may be performed only under the authority of a permit (s. 8 & 9). Section 4 of the Regulations provides for the appointment of an official of the Department of Indian Affairs and Northern Development as "engineer". The engineer is empowered to issue permits authorizing the use of territorial lands (s. 25) and to prescribe operating conditions (s. 31(1)). The conditions of a permit may include measures to protect wildlife habitat and places of recreational, scenic and ecological value.

Conditions may be added for the protection of the biological and physical characteristics of the land management zone. By definition, the Yukon is a "land management zone".

The terms and conditions of a permit cannot be so restrictive as to be construed to take away a permit holder's entitlement to access an area to which he has acquired natural resource rights (Thompson and Rueggeberg 1988). Recourse to the Territorial Land Use Regulations appears feasible only insofar as varying the methods and timing to be employed in carrying out a land use operation. We cannot rely upon influencing most road building proposals so as to prevent construction. Our access management strategy should reflect actions whose intent is to protect wildlife populations with as little collateral interference with other activities as possible. We will continue to promote the view that land use permit conditions should reflect habitat protection measures but access management through the land-use permitting process, to regulate hunting, is not a favourable approach.

4.2 **Highways Act**

The Yukon Act (s. 46) determines that all roads and trails are subject to the control of the Commissioner in Council. One aspect of control involves the closing of roads and s. 30 of the Highways Act allows closure by order-in-council. Section 30 allows the whole or any portion of a highway to be closed and all roads and trails are defined as being highways.

There is no recorded instance of a road having been closed to the public for reasons of wildlife conservation. Typically, closures pursuant to s. 30 involve cases where a surveyed right-of-way is no longer required due to highway reconstruction or land use changes in or near communities. Safety considerations also form the rationale for highway closures under s. 30. (e.g. Evelyn Creek trail).

In the absence of an explicit policy on the application of s. 30, it is unclear how useful it might be for our purposes. Highway administrators have shown willingness to consider limiting public access in order to reduce the impacts of hunting. One recent case involves a new bridge on the McQuesten River and the second instance concerns a proposed bridge on the Rancheria River. In both of these cases the roads are being constructed for forestry operations and gated entry systems are proposed. Access could be denied after the completion of logging in April or May.

4.3 **Wildlife Act**

The Wildlife Act (s. 165(1)) allows the Commissioner in Council to make regulations respecting the use of vehicles for any purpose relating to the hunting of wildlife. This regulation-making authority has been in force since 1982 but has not been exercised. Similar provisions in provincial wildlife legislation have been used to implement an array of measures directed at regulating the use of vehicles. Examples of the specific measures in the four western provinces are provided in Appendices 2-5.

Section 165(1) of the Wildlife Act provides the necessary framework for regulating the use of vehicles. The following section examines specific approaches that are available to address access-related problems through the Act.

5. APPROACHES

5.1 Wildlife Act Alternatives

As noted earlier, the measures the Department proposes for regulating access should reflect the level of intervention that is necessary to meet explicit objectives. This immediately rules out any notion of a general ban on the use of ATVs or any other particular mode of transportation because the objective is to regulate vehicles, not prohibit their use entirely.

It has been observed that hunters accept harvest regulation in the form of closure of game management zones, shorter seasons and reduced bag limits; whereas management treatments that include regulating the use of vehicles are met with resistance and suspicion. This is due at least in part to a lack of understanding of wildlife management as an incremental process whose development proceeds through successive refinements and fine tuning of basic techniques. The Department's approach toward managing access is designed to complement the traditional techniques and will enhance hunting opportunities in those instances where local overharvest, due to vehicular access, would otherwise result in closure of entire subzones. This type of refinement allows the wildlife management program to be intensified without unduly infringing upon the satisfactions that are enjoyed by hunters and other resource users.

Effective control over the use of vehicles requires objectivity in terms of understanding the nature and scope of the problem, as well as

a flexible response capability. There is a sufficient understanding of the cause and effect relationship between wildlife harvest and vehicular access to initiate a response in most cases. We have outlined below the measures we would take to secure control over the use of vehicles for hunting.

There are three distinct steps to implementing an access management program.

1) The first is to designate the area where controls are to be applied. The system of game management zones and subzones provides a focus for the process of designation. Supporting mapped information can be readily provided.

2) The second step involves establishing a formal approach for directing the use of vehicles for the purpose of hunting. Here too, there is an existing infrastructure to draw on. Section 165(1) of the Wildlife Act provides the legal basis for regulations covering the use of vehicles for purposes related to hunting and enforcement powers are provided in s. 120(1).

3) The third step involves ensuring that the program has public support. All new management approaches that we initiate are reviewed by the Wildlife Management Board. The Board represents a broad spectrum of wildlife interests, thus ensuring that new programs reflect the public interest. Working together with the

Board and interest groups on a formal and informal basis will help to secure the Department's management objectives.

Access management involves directing the behaviour of vehicle users. The kind of behaviour to be discouraged is that which leads to an overharvest or disrupts the way wildlife populations use their range. Problems related to vehicular access are typically examples of the use of the right thing in the wrong place. Viewed in this way, the only significant behaviour modification that is necessary is to identify places where the use of vehicles for hunting need to be regulated, and to impose controls accordingly.

The following model access management program is proposed for discussion:

i) Designation

-Identify game management subzones where vehicular access is a problem.

-Select the appropriate control methods, for example:

a) restrict all forms of use of vehicles in the subject area for the purpose of hunting;

b) allow vehicles to be used for retrieving game but not for transportation in the area prior to taking of game;

c) identify routes in the area that may be used by vehicles and mark them as "designated routes" to be used for the purpose of hunting. Travel by vehicle on routes that aren't designated, as

well as cross country travel between designated routes would not be allowed;

d) prohibit the carrying of firearms on or in vehicles in the subject area.

ii) Formal basis for implementation

-New regulations would be drafted under s. 165(1) of the Wildlife Act.

-The regulations would reflect the objectives in each case and could include one or more options cited above.

-The type of vehicles affected would be explicitly stated. Necessary distinctions could be made between vehicles designed expressly for off-road travel and other types of vehicles, such as four-wheel-drive pickups, which may be driven cross country under certain conditions.

-Submit the vehicle-control proposals to the Wildlife Management Board for approval. Consultation with special interest groups could be part of this process or handled separately.

-Negotiate separate agreements with the native bands in whose traditional lands the subject area is situated. These agreements would secure the compliance of native hunters.

5.2 Interventions Through Land Use Reviews

Measures pursuant to the Wildlife Act to regulate the use of vehicles will not diminish the Department's role in the review and approval of the road building proposals. There will continue to be instances where the direct physical impact of roads upon wildlife habitat will

require input at the design and approval stages. Opportunities for mitigative action in such cases will be sought through the Land Use Advisory Committee in the case of land use permits, as well as through the R.T.A.P. technical and management committees. Major road building projects will continue to be reviewed through the federal government's Regional Environmental Review Committee until such time as the territorially administered Development Assessment Process becomes operational.

A two-pronged approach is envisioned. First, strictly access-related problems will be handled through the Wildlife Act provisions for controlling the use of vehicles. Concurrently, with measures initiated through the Wildlife Act, road construction projects will be examined to identify other impacts to wildlife interests and to remedy them accordingly.

6. VEHICLE CONTROLS IN OTHER JURISDICTIONS

6.1 Manitoba (Appendix 1)

Designated vehicle routes have been established in ten areas. In designated route areas, the use of aircraft can be controlled by designating particular locations where aircraft may land to discharge or pick up hunters, or to retrieve game. Detailed maps showing the designated routes are provided and all routes are clearly marked with special signs. This type of regulation has been in force in some areas for approximately 20 years. The compliance rate is high because violations are highly visible, thus enforcement has not been unusually difficult.

6.2 Saskatchewan (Appendix 2)

The vehicle control regulations in Saskatchewan are similar to those in Manitoba. An important modification is that the carrying of firearms on ATVs in some Wildlife Management Zones is prohibited. A four-wheel-drive vehicle is considered an ATV when it is driven off-road over terrain where a standard two-wheel-drive vehicle would not reasonably be used. Both provinces control the use of vehicles to regulate harvest and to maintain sportsman-like conduct.

6.3 Alberta (Appendix 3)

The use of vehicles for hunting, as well as for other recreational purposes, is covered by regulations made pursuant to the Forests Act. Area designation takes the form of forest land use zones, forest

recreation areas and forest recreation trails. Control over the use of vehicles includes:

i) restriction of motorized activities to designated trails or travel corridors;

ii) exclusion of motorized and non-motorized activities from highly sensitive areas within a zone. This form of protection may be applied in regard to wildlife and wildlife habitat, vegetation, soils and watershed;

iii) authorization of motorized and/or non-motorized activities during certain seasons;

iv) complete exclusion of motorized and/or non-motorized activities, including recreational, industrial and commercial.

The level of control varies according to the resource values within a given area and the kinds of uses for which it is deemed to be best suited. The scope of this regulation is much broader than that of a program designed expressly for wildlife interests.

6.4 British Columbia (Appendix 4)

The conditions under which boats, aircraft, motor vehicles or snowmobiles may be used for the purposes of hunting, trapping, taking or viewing wildlife may be prescribed in regulations pursuant to the Wildlife Act. A variety of regulations have been passed to restrict the use of vehicles for the purposes of hunting. Specific measures

include prohibiting the use of vehicles on designated roads and in specific wildlife management units. In some restricted areas, the use of vehicles is permitted only on designated roads.

7. SUMMARY AND RECOMMENDATIONS

7.1 The Department has not exercised its mandate to regulate the use of vehicles for the purposes of hunting. Our efforts to address access-related problems have been channelled through the land use review process. Experience has shown that attempts to block development proposals, based on the grounds that wildlife populations are in jeopardy of overharvest, have been ineffectual. We have reservations about continuing to request access management treatments through the environmental conditions of land use permits issued by the federal government.

7.2 The Department's aim is to begin using the authority of s.165(1) of the Wildlife Act to regulate the use of vehicles in cases where hunting pressure is predicted to increase as a result of vehicular access. Examples drawn from the four western provinces show that a wide range of measures are in common use. Broad public support for similar provisions in the Yukon is indicated. In some cases, vehicle restrictions will be actively supported, particularly when the options lead to hunting closures of entire subzones or groups of subzones.

7.3 Interventions through the development review process will continue to be practised. This will ensure that the direct physical impacts that roads have upon sensitive habitat are addressed. However, where the objective is to regulate wildlife harvest, the Department will implement control measures pursuant to the Wildlife Act. We will apply the principle that controlling the use of vehicles is a

management treatment to meet explicit objectives. The cause and effect relationships between vehicular access and wildlife harvest are sufficiently understood to design an appropriate response in most cases.

7.4 It is recommended that the Wildlife Management Board adopt vehicle controls as an operating principle for improving wildlife management programs in the Yukon. The operative word is "control". The Department does not propose a wholesale ban on the use of any type of ground vehicle for the purposes of hunting.

7.5 The Wildlife Act is under revision and the Department's capability for making an appropriate response to road building programs can be enhanced in the following manner. The formal regulation-making route, authorized under s.165(1) of the Act, can be supplemented by a section enabling the Minister to impose vehicle restrictions by ministerial order instead of by order-in-council. Such discretionary power will enable us to respond to cases where the normal regulation-making cycle would prevent any action from being taken until the following year. A one year deferral ususally sets the stage for measures that have no preventive effect at all in terms of contemporaneous events. This kind of situation is also known by the idiom, "locking the barn doors after the horse has been stolen".

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APPENDICES

APPENDIX 1

ACCESS MANAGEMENT POLICY

1. Purpose

The purpose of this policy is to:

- a) To protect wildlife populations from adverse effects of road construction or rebuilding in areas formerly inaccessible or poorly accessible to mechanized transport.
- b) To address problems related to existing backcountry roads whose continued use poses a threat to wildlife populations due to increased hunting pressure and disturbance.
- c) To reduce the impacts of aircraft, particularly helicopters, to wildlife.
- d) To regulate the use of all-terrain vehicles (A.T.V.s) for the purposes of hunting.
- e) To allow designation of specific segments of roads where nonconsumptive uses of wildlife would prevail over other uses.

2. Scope

The policy covers all transportation modes and all phases of road construction, reconstructions or upgrading.

3. General Policy

The wildlife and other wilderness resource of the Yukon have a broad array of values, both economic and non-economic. The government of the Yukon will endeavor to ensure that access routes are designed and managed to minimize the negative effects on these other values.

Two basic approaches will be used in access management:

3.1 Wildlife Act

The Wildlife Act will be used to close specific subzones to hunting, to impose no-hunting corridors along roads or trails, and to limit the use of vehicles for hunting (either designating access corridors or imposing other area-specific controls).

3.2 Highway Act (Section 30)

The Highway Act will be used to close roads and trails where appropriate.

4. Mining Roads

4.1 Permanent Roads

Roads that are anticipated to be in use for an indeterminate period, as in the case of access to ore deposits being brought into production, will be evaluated for their impact upon wildlife and habitat. Alignment and design changes will be recommended to mitigate predicted adverse impacts. Access management along permanent roads will take the form of no-hunting corridors and other similar prohibitions designed to reduce the impact of hunting, without unduly interfering with activities unrelated to hunting.

4.2 Exploration Roads

The government will promote the view that roads to be constructed for mineral exploration are temporary in nature and that such roads will be put out of order for further traffic upon completion of exploratory work, unless development plans for the locality show that subsequent re-use of the road is imminent. Exploration roads whose status changes from temporary to permanent will be managed to limit their use for the purpose of hunting, as required by the circumstances in each case.

5. Forestry Roads

5.1 Trunk Roads

Main haul roads built to an all-weather standard, leading into the general area of harvesting operations, will be considered as being permanent and access management will take the same form as in paragraph 4.1. The routing of proposed trunk roads will be evaluated to identify conflicts with wildlife and other resource interests in the affected locality, and alignment and design changes will be recommended accordingly.

5.2 Lateral Roads

Secondary haul roads, which provide access from a trunk road to a network of tertiary compartment roads, will receive access management treatment if they are suited for use during summer. Access management will take the form of no-hunting corridors or measures which close the road to traffic when forest harvesting operations are not in progress. The treatment in each case will be based upon its particular circumstances.

5.3 Compartment Roads

Haul roads leading into specific stands will be treated as temporary roads. The department will promote the use

of winter roads, having no prepared running surface or just minimum improvements, for this purpose. Winter roads typically require no access management treatment because they become impassable with the onset of spring breakup.

6. Designated Access Management Areas

6.1 The department will examine access management options for areas where wildlife populations are vulnerable to overhunting because of a proliferation of roads and trails. Consideration in such cases will be given to allow access to the general area, while maintaining an acceptable level of control overall. Access management under these circumstances will take the form of designated routes into the area which may be used by vehicles, including all-terrain vehicles. The use of vehicles on routes which are not expressly designated will be prohibited in such areas.

7. Road Closures

7.1 Requests for road closures that require action under the Highway Act rather than the Wildlife Act will be reviewed by all relevant government departments prior to going to Cabinet for final approval. In instances where road closure is recommended, access management will take the form of gated entry or other measures, including permanent closure by means of physical barriers to vehicular traffic. In most cases the option to re-open the road will be retained.

7.2 In certain critical habitat areas where new roads are proposed for single purposes (e.g. mine development), the creation of "private" roads on land leases or using other mechanisms will be considered. This will permit gating and potential decommissioning once the primary use is completed.

8. Aircraft

8.1 The government will examine development proposals involving repeated passes by low-flying aircraft to identify conflicts with wildlife. Access management in such cases will include recommendations of preferred routes but aircraft safety will always be the primary consideration.

8.2 The department will promote the view that deliberate low-level overflights over wildlife should be avoided.

9. Alternative Access Modes

9.1 The government will continue to promote the use of access modes which do not involve the construction of new roads.

Proposals for roads to be constructed for mineral exploration will be reviewed from the standpoint that alternative means of access must be examined. The range of options to be considered will include winter roads and aircraft-supported operations. Any determination as to feasibility of an alternative method will include an assessment of environmental impacts of road construction, as well as economic factors.

APPENDIX 2

Manitoba Regulation 152/84

*Being a Regulation Under Division 2 of Part II of The Wildlife Act
Regulating the Use of Vehicles*

(Filed July 6, 1984)

1. In this regulation
 - (a) "designated route" means a route upon which vehicles may be used as described on plans filed in the office of the Director of Surveys of the Department of Natural Resources in Winnipeg;
 - (b) "Game Hunting Area" means an area of the province bearing a number and described in the regulations made pursuant to The Wildlife Act.
 - (c) "watercraft" means a rowboat, canoe, barge, raft, floating blind, or any other means of water conveyance that is propelled or driven by human power or by the wind.
2. For the purpose of this regulation, the restrictions regarding the use of a power boat do not include a power boat when the motor is not in operation and when any progress as a result of the motor having been in operation has ceased.
3. (1) Except as provided in subsection (3), no person shall use a vehicle other than a car, truck, or power boat in Game Hunting Areas 6A, 13, 13A, 14 (excluding designated route areas, Swan Lake, Pelican Lake, Lake Winnipegosis or Pelican River between Pelican Lake and Pelican Bay), 18A, 19, 19A, 21 (excluding designated route areas) 22, 24, 25, 25A, 27, 28, 29, 29A, 30 (excluding designated route areas), 31, 31A, 32, 33, 34, 34A, 35, 35A, or 36 for any purpose connected with the hunting of big game from August 15 to December 31.
3. (2) Except as provided in subsection (3), no person shall use a vehicle other than a car, truck or power boat in Game Hunting Areas 23, or 23A for any purpose connected with the hunting of big game from August 15 to February 15
3. (3) A person who lawfully killed a big game animal may use a vehicle for the sole purpose of transporting the animal by the most direct route from the place of killing to other means of transportation or out of the area.
4. (1) Except as provided in subsections (2) and (3) and in subsection 7(1), and except on routes designated for that purpose as set out in subsection (4), no person shall
 - (a) use a vehicle within Game Hunting Areas 5, 6, 8, 15, 18, 20, or 26 for any purpose connected with the hunting of big game from August 15 to December 31;
 - (b) use a vehicle in designated route areas within Game Hunting areas 12, 14, 21, 25A or 30 for any purpose connected with the hunting of big game from August 15 to December 31;
 - (c) use a vehicle in Game Hunting Areas 5, 6, 8 or Narcisse Wildlife Management Area for any purpose connected with the hunting of game birds.
4. (2) Notwithstanding subsection (1), the Director of Wildlife may authorize the issuance of a permit allowing the use of vehicles in transporting people, supplies or equipment by the most direct and same route, to and from a building with respect to which a permit has been issued and that is off a designated route.
4. (3) A person who has lawfully killed a big game animal within an area in which designated routes are specified, may use a vehicle off the designated routes for the sole purpose of transporting that animal by the most direct route from the place of killing to other means of transportation or out of the area.

- 4) The designated routes upon which vehicles may be used are shown on plans filed in the office of the Director of Surveys of the Department of Natural Resources in Winnipeg as follows:
- (a) Game Hunting Areas 5, 6 and 8 — Plan No. 18408B;
 - (b) Game Hunting Area 12 — Plan No. 17509C;
 - (c) Game Hunting Area 14 — Plan No. 17162C;
 - (d) Game Hunting Areas 15 and 20 — Plan No. 17881B;
 - (e) Game Hunting Area 26 — Plan No. 17882D;
 - (f) Narcisse Wildlife Management Area — Plan No. 18028A;
 - (g) Game Hunting Area 21 — Plan No. 18400B;
 - (h) Hecla Island — Plan No. 18339C;
 - (i) Game Hunting Area 18 — Plan No. 18918A;
 - (j) Shilo Military Range — Plan No. 18919.
- 5) The Director of Wildlife may, in writing, order at any time the closure or re-opening of any designated route to vehicles being used for any purpose connected with hunting.

Unless authorized by the Director of Wildlife, no person shall use a vehicle.

- (a) in the Langruth or Broomhill Wildlife Management Areas during any upland game bird hunting season therein;
- (b) in that portion of the Pierson Wildlife Management Area within Section 8 in Township 2, Range 29 West during any upland game bird or big game hunting season therein;
- (c) in the Inwood Wildlife Management Area for any purpose connected with hunting except to retrieve a lawfully killed big game animal by the most direct route.

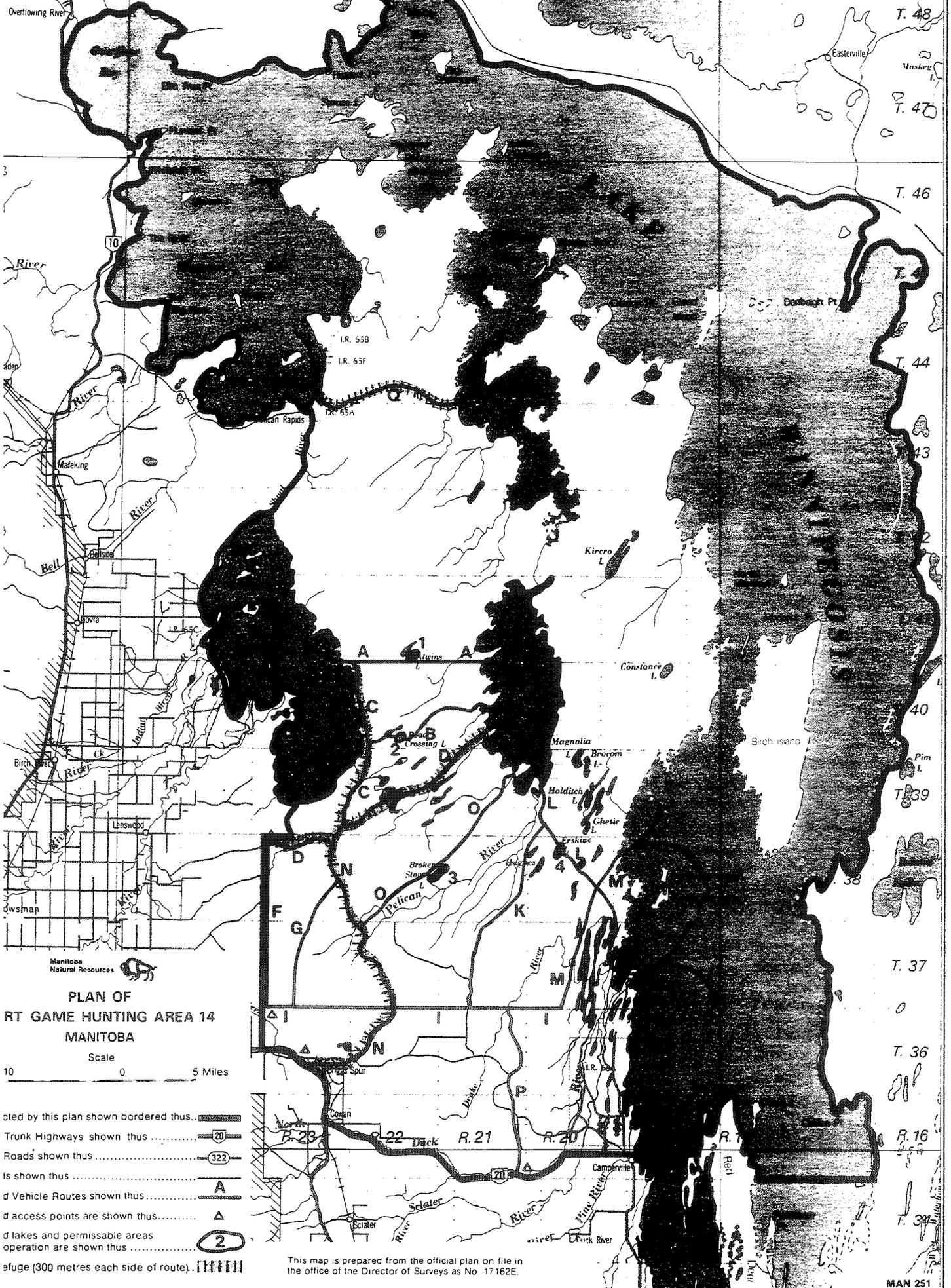
No person shall use any vehicle or watercraft in the Whitewater Lake Wildlife Management Area, or the Dog Lake Wildlife Management Area for any purpose connected with hunting.

- 1) Notwithstanding subsection 4 (1) (a), and subject to subsections (2) and (3), a person hunting big game or waterfowl may use a power boat in Game Hunting Areas 5, 6 and 8.
- 2) Except as provided in subsection 4 (3), no person shall use a power boat on Root Lake or Reader Lake within Game Hunting Area 6 for any purpose connected with the hunting of big game or game birds except on routes designated for that purpose as set out in subsection 4 (4).
- 3) Except as provided in subsection 4 (3), no person shall use a power boat on Little Kelsey Lake or Kelsey Lake within Game Hunting Area 8 for any purpose connected with the hunting of big game or game birds.
- 4) The Director of Wildlife or a person designated by him may authorize any person in writing to use a power boat on other than designated routes.
- 1) Except as provided in subsection (2), no person shall operate or use a power boat within
 - (a) the marsh known as Delta Marsh, or
 - (b) the marsh known as Netley Marsh, except on routes as designated on a plan filed in the office of the Director of Surveys at Winnipeg as Plan No. 18600A.

- 8. (2) The Minister or any person acting under the authority of the Minister may authorize any person in writing to use a power boat within the Delta Marsh or Netley Marsh.
- 9. Manitoba Regulations 164/83 and 191/83 are repealed.

Dated at Winnipeg, Manitoba this 4th day of July, 1984.

"A. H. Macklin"
Minister of Natural Resources



**PLAN OF
RT GAME HUNTING AREA 14
MANITOBA**

Scale
10 0 5 Miles

- cted by this plan shown bordered thus.....
- Trunk Highways shown thus.....
- Roads shown thus.....
- Is shown thus.....
- d Vehicle Routes shown thus.....
- d access points are shown thus.....
- d lakes and permissible areas
operation are shown thus.....
- efuge (300 metres each side of route).....

This map is prepared from the official plan on file in the office of the Director of Surveys as No. 17162E.

APPENDIX 3

(3) Subsection (1) does not apply to Saskatchewan residents who reside within Wildlife Management Zone 76 while exercising hunting privileges not requiring a paid licence.

21 Aug 81 CW-13.1 Reg 1
s47; 30 Apr 82 SR 63/82
s10; 3 Sep 82 SR 116/82
s19; 14 Sep 84 SR
110/84 s13.

Firearms on all-terrain vehicles

48(1) During an open season for big game, no person shall carry a firearm on any all-terrain vehicle:

- (a) within Wildlife Management Zones 1 to 47, inclusive, 50, 51, 52 and 54; or
- (b) within Wildlife Management Zones 48, 49, 53 and 55 to 76, inclusive, unless the firearm is encased.

(1.1) Notwithstanding clause (1)(a), encased firearms may be carried on an all-terrain vehicle in:

- (a) Fort-a-la-Corne Wildlife Management Unit during an open season for spring bear;
- (b) Cypress Hills Provincial Park (West Block) during an open season for big game.

(2) Unless authorized by the director, from the day before the first day of the first open season for big game in the fall of any year to the day after the last day of the last open season for big game in the fall of any year within Cookson Wildlife Management Unit, Cypress Hills Provincial Park (West Block), that portion of Wildlife Management Zone 60 lying north of Township 51 or Wildlife Management Zone 61 or 62, no person shall:

- (a) operate or be a passenger in any vehicle for any purpose related to hunting, including the establishment of a hunting camp; or
- (b) carry a firearm in or on a vehicle except where that vehicle is on a numbered provincial highway or designated trail.

(2.1) Notwithstanding subsection (2), a person may:

- (a) establish a hunting camp or commute to that camp within 100 metres of a provincial highway or a designated trail by the most direct route available in Wildlife Management Zones 60, 61 and 62;
- (b) park within 10 metres of a provincial highway or designated trail in Cookson Wildlife Management Unit and Cypress Hills Provincial Park (West Block).

(3) Unless authorized by the director, no person shall operate or be a passenger in any vehicle for the purpose of hunting within any P.F.R.A. or provincial community pasture, except along a provincial highway, public highway, road or trail.

(4) During an open season for big game in Wildlife Management Zones 48, 49, 56 to 59 and 68, no person shall operate or be a passenger in any all-terrain vehicle for any purpose connected with hunting between midnight and noon, except:

(a) during an open season for spring bear;

(b) to retrieve a killed big game animal by the most direct route available during the period between the first day of the first open season for big game in the fall of any year and October 10 in that year, and an encased firearm may be carried in the all-terrain vehicle for that purpose;

(c) in Wildlife Management Zone 59, to drive between Provincial Highway No. 55 and a designated trail in Wildlife Management Zone No. 60 by the most direct route available; or

(d) as authorized by the director.

(5) Unless authorized by the director, no person shall operate or be a passenger in a vehicle for any purpose related to hunting on wildlife lands.

(5.1) Unless authorized by the director, no person shall operate or be a passenger in any vehicle for hunting big game in Wildlife Management Zones 15 to 17, inclusive, 20 and 30 to 34, inclusive, excluding Moose Mountain Provincial Park, except along a road or road allowance with a trail.

(6) A person who has lawfully killed a big game animal in an area described in subsection (2), (3), (5) or (5.1) may operate a vehicle within that area for the sole purpose of retrieving the animal to a trail, designated trail, road or provincial highway by the most direct route available and an encased firearm may be carried in the vehicle while retrieving the big game animal.

(7) Notwithstanding any other provision of this section, a holder of a fur licence may carry a .22 rimfire rifle in a vehicle and use a vehicle off a road or trail while conducting normal trapping operations.

21 Aug 81 cW-13.1 Reg 1
s48; 30 Apr 82 SR 63/82
s11; 3 Sep 82 SR 116/82
s20; 22 Jly 83 SR
103/83 s12; 26 Aug 83
SR 128/83 s11; 27 Apr
84 SR 42/84 s6; 14 Sep
84 SR 110/84 s14; 13
Sep 85 SR 100/85 s13;
29 Aug 86 SR 93/86 s10.

Closure of designated trail

- 49(1) The director may order, at any time, the closure and reopening of an designated trail.
- (2) Notice of any closure made pursuant to subsection (1) is effected by the posting of signs at access points to such trails.
- 21 Aug 81 CW-13.1 Reg 1
s49.

PART VI
Traffic in Wildlife

General

- 50(1) Any person may, without a licence:
- (a) engage in, carry on or be concerned in the tanning, dressing, plucking, dyeing or treating of the raw or undressed hide, skin or pelt of any wildlife; or
- (b) Repealed. 13 Sep 85 SR 100/85 s14.
- (2) No person shall, without a licence for the purpose:
- (a) possess, engage in or carry on, or be concerned in the trade, buying or selling of fur animals or pelts;
- (b) engage in the business of storing skins and pelts of fur animals;
- (c) sell or otherwise traffic in wildlife, other than:
- (i) the hide of a big game animal lawfully-taken and tagged in accordance with these regulations;
- (ii) leather and leather products made from lawfully-taken big game hides;
- (iii) naturally-shed big game antlers;
- (iv) wildlife species taken in accordance with subsection 4(1) of these regulations;
- (v) furs under a fur licence;
- (d) sell, serve, advertise or otherwise traffic in the flesh of wildlife or dishes composed wholly or partly of wildlife;
- (e) do business as a taxidermist.

21 Aug 81 CW-13.1 Reg 1
s50; 3 Sep 82 SR 116/82
s21; 22 Jly 83 SR
103/83 s13; 13 Sep 85
SR 100/85 s14; 29 Aug
86 SR 93/86 s11.

Vehicle Controls

Like other conservation laws, vehicle controls allow more equal hunting opportunity and regulate the harvest of game. Depending on terrain and the type of vehicles involved, different controls are enforced.

All Terrain Vehicles (ATVs)

Within Wildlife Management Zones 1 to 47, 50 to 52 and 54, excluding Cypress Hills (West Block) Provincial Park, no person shall carry a firearm (including a bow and arrow) on an all terrain vehicle during an open big game season. "All Terrain Vehicle" means any self-propelled vehicle designed for off-highway travel and includes any trailer, toboggan or other accessory. A four-wheel drive vehicle is considered an ATV when it is being operated in an off-road situation where a standard two-wheel drive vehicle would not reasonably be used.

Within Wildlife Management Zones 48, 49, 53, and 55 to 76 and in Cypress Hills (West Block) Provincial Park during an open season for big game, no person shall carry a firearm on an all terrain vehicle unless it is encased. "Encased" means completely enclosed in a fastened gun case or wrapped in fabric, plastic, or similar material so as not to be readily available for use.

In Wildlife Management Zones 48, 49, 56 to 59 and 68 during the big game seasons, all terrain vehicles may only be operated for the purpose of hunting between noon and midnight. Exceptions: Before October 10, ATVs may be used at any time to retrieve legally-killed big game in these zones. In WMZ 59 north of Highway 55, ATVs may be used in the morning, but only for access to the designated trails in WMZ 60 by the most direct route available.

Roads and Trails Only

During an open big game season in Wildlife Management Zones 15 to 17, 20, and 30 to 34, hunters are not allowed to drive off roads or road allowances with trails to search for game, but can use vehicles to retrieve legally-killed game animals, by the most direct route.

A "Road" is defined as a prepared surface designed for vehicular traffic. "Road allowances with trails" are defined as legal road allowances with established trails made by vehicular traffic. Wildlife Act charges will apply to drivers and occupants of hunting vehicles driven through willow sloughs, across fields, around the edge of bluffs, or anywhere else off roads or road allowance trails. West of the Second Meridian (102 degrees longitude), legal road allowances are spaced a mile apart from east to west, and two miles apart from north to south. Road allowances east of the Second Meridian occur at one mile intervals going east-west and north-south.

Different vehicle control regulations apply to community pastures within the roads and trails only zones.

Designated Trails

Designated trails are a means of controlling vehicle access to game populations. From August 23 to November 29 in Wildlife Management Zones 60, 61 and 62, and from September 6 to November 15 in Cypress Hills (West Block)

Provincial Park, and from August 23 to December 22 in Cookson Wildlife Management Unit, no person for any purpose related to hunting shall:

(a) drive a vehicle off a designated trail or provincial highway, except to retrieve a legally-killed big game animal and return by the most direct route. Firearms in vehicles driven off designated trails and provincial highways for this purpose must be encased;

(b) in WMZ 60, 61, 62 and Cookson Wildlife Management Unit, use a vehicle to erect or drive to a hunting camp more than 100 metres from a designated trail or provincial highway. Access to hunting camps must be by the most direct route from a designated trail or a provincial highway;

(c) in Cookson Wildlife Management Unit and Cypress Hills (West Block) Provincial Park, park more than 10 metres from a designated trail.

Exception: The designated trails regulation does not apply in that portion of WMZ 60 south of Township 52.

Designated trails in WMZ 60, 61 and 62 will be marked at the start, at intersections with other designated trails, and at intervals with diamond-shaped orange markers. Designated trails in Cypress Hills (West Block) Provincial Park are marked at the start and end with designated trail signs.

All hunters drawn for special moose or elk licences in a designated trail area will be sent a map outlining the trail system. Designated trail maps are available free-of-charge at department offices and big game checking stations throughout the designated trail areas, and from the department's Wildlife Branch, 3211 Albert Street, Regina, Saskatchewan, S4S 5W6.

Community Pastures

All PFRA and provincial community pastures are open to sport hunters once the cattle have been removed, unless otherwise posted. Primitive weapons deer hunting will be allowed, with permission from pasture managers, in portions of Battle River-Cutknife, Coteau, McCraney, Monet, Montrose, Rudy-Rosedale, Osborne, Wellington, Willner-Elbow and Wolverine Community Pastures.

Except to retrieve legally-killed big game animals, vehicles may not be driven off roads and trails within community pastures. Some areas within each pasture will remain closed at all times to protect buildings and resident livestock.

Wildlife Lands

Thirty per cent of the revenue generated through licence sales in Saskatchewan is reserved for habitat purchase. These "wildlife lands" are open to public hunting. Except to retrieve legally-killed big game animals, vehicle use is not permitted.

Road Corridor Game Preserves

Road corridor game preserves prohibit all hunting within 400 metres of selected roads in the Provincial Forest and are an important part of the moose management program. While travelling through road corridor game preserves, firearms must be encased and kept inside vehicles. However, licenced hunters in road corridor game preserves may carry

APPENDIX 4

**BLACKSTONE/WAPIABI FOREST LAND USE ZONE
JOB LAKE FOREST LAND USE ZONE
PANTHER CORNERS FOREST LAND USE ZONE
UPPER CLEARWATER RIVER FOREST LAND USE ZONE**

15.1(1) Subject to subsection (2), no person shall, within any of the Zones, operate

- (a) an on-highway vehicle, except on a highway, or
- (b) an off-highway vehicle or snow vehicle.

(2) The operation of a motor vehicle on land within any of the Zones is permitted

- (a) to transport an employee of the Government in the course of his work,
- (b) where the vehicle is being used to conduct or transport any person or equipment to be employed or used in work or activity within the Zone that has been approved by the Minister,
- (c) to remove a sick, injured or deceased person from the Zone, and
- (d) in connection with registered trapping at places within the limits of a registered trapping area within the Zone where the use of the vehicle is approved by a forest officer.

(3) No person shall permit his horse or a horse under his control to graze or be tethered within 100 metres of the shore of any lake in any of the Zones.

(4) Every person who brings his horse or a horse under his control into any of the Zones or permits such a horse to enter any of the Zones shall, if instructed verbally or in writing by a forest officer or by signs or notices posted in, or on or about the Zone, provide to those horses feed in the quantities specified by the forest officer or the sign or notice.

AR 162 85 83

ALLISON/CHINOOK FOREST LAND USE ZONE

15.2(1) Subject to subsections (2) to (4), no person shall, within the Allison Chinook Forest Land Use Zone, operate

- (a) an on-highway vehicle, except on a highway, or
- (b) an off-highway vehicle or snow vehicle.

(2) The operation of an on-highway vehicle or off-highway vehicle is permitted within the Allison/Chinook Forest Land Use Zone from April 1 to November 30 on trails which have been designated for that purpose by signs or notices posted in the Zone.

(3) The operation of a snow vehicle is permitted within the Allison Chinook Forest Land Use Zone from December 1 to March 31 on trails which have been designated for that purpose by signs or notices posted in the Zone.

(4) The operation of a motor vehicle on land within the Allison Chinook Forest Land Use Zone is permitted

- (a) to transport an employee of the Government in the course of his work,

achieving a balance between the need to conserve the forest resource and the desire to reap its many benefits is a long-term goal of public land management in Alberta. A major challenge is to solve the dilemma of conserving the forest land base for future generations of Albertans to enjoy, while making the best use of its timber, wildlife, recreation, watershed and rangeland resources.

As the demand for industrial and recreational use of the forest land base increases, the need for responsible resource management becomes even more important.

Managers of Alberta's renewable resources have shown that limiting activities in sensitive areas and designating areas for specific activities are effective ways to reconcile the demands to utilize our renewable resources with the need to protect them.

The Alberta Government has established limitations on recreational use in certain environmentally sensitive areas in the Eastern Slopes. These areas have been designated as forest land use zones, under the authority of section 46 of the Forests Act.

What is a Forest Land Use Zone?

A forest land use zone is an area of land to which legislative controls are applied to solve specific land use problems.

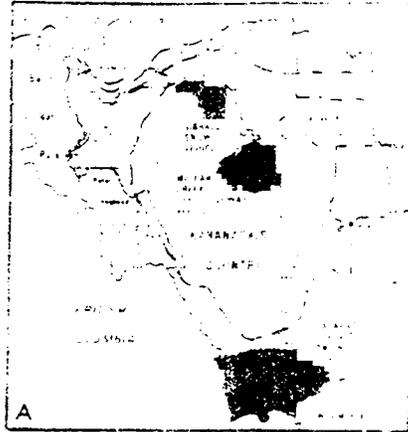
A forest land use zone can be used to:

1. protect areas containing sensitive resources such as wildlife and their habitats, vegetation, soils and watershed
2. separate or control conflicting recreational activities

There are various levels of control which can be achieved through the forest land use zone designation, including:

1. complete exclusion of motorized and/or non-motorized activities, including recreational, industrial and commercial
2. restriction of motorized activities to designated trails or travel corridors
3. exclusion of motorized and non-motorized activities from certain highly sensitive areas within a zone
4. authorization of motorized and/or non-motorized activities during certain seasons

Presently there are ten forest land use zones in Alberta, including the well-known Kananaskis Country Forest Land Use Zone. They cover 5,643 square kilometres of public land in the Eastern Slopes. This represents 6.3 percent of the Eastern Slopes region, which has a total area of 90,002 square kilometres.



Kananaskis Country Forest Land Use Zone

- Date Established • October, 1979
- Size • 3,153 square kilometres, including the two smaller zones located within the Kananaskis Country zone.
- Purpose • Prevents conflicts between motorized and non-motorized recreational activities in the Kananaskis region, where traditionally most use has been non-motorized.
- Restrictions • Camping and open fires are not permitted within one kilometre of recreation areas, trails or roadways within the zone; motorized vehicle use is prohibited except on highways and within the McLean Creek Off-Highway Vehicle Forest Land Use Zone and the Sibbald Snow Vehicle Forest Land Use Zone.

McLean Creek Off-Highway Vehicle Forest Land Use Zone

- Date Established • October, 1979
- Size • 205 square kilometres
- Purpose • Provides an area for off-highway vehicle use in the McLean Creek area of the Kananaskis Country Forest Land Use Zone.
- Restrictions • Operation of motor vehicles is permitted except as otherwise indicated by signs posted in the zone.

Sibbald Snow Vehicle Forest Land Use Zone

- Date Established • October, 1979
- Size • 98 square kilometres
- Purpose • Provides snowmobiling opportunities in the Sibbald area of the Kananaskis Country Forest Land Use Zone.
- Restrictions • Operation of snow vehicles is permitted except as otherwise indicated by signs posted in the zone.

Cataract Creek Snow Vehicle Forest Land Use Zone

- Date Established • October, 1979
- Size • 500 square kilometres
- Purpose • Provides snowmobiling opportunities in the Cataract Creek area.
- Restrictions • Operation of snow vehicles is permitted except as otherwise indicated by signs posted in the zone.

APPENDIX 5

controlled by the person or association and regulating the hunting of wildlife on the property of the person or association.

- (dd) prescribing the conditions under which boats, aircraft, motor vehicles or snowmobiles may be used for the purpose of hunting, trapping, taking or viewing wildlife or for angling,
- (ee) specifying open seasons or closed seasons, or both, for a sex, age or species of wildlife, and
- (ff) prescribing the hours of the day or night during which the hunting of wildlife is prohibited or allowed.

(3) The Lieutenant Governor in Council may delegate a power under subsection (2) to the minister.

(4) The Lieutenant Governor in Council, notwithstanding anything in this Act, may make regulations respecting the issue of permits and prescribing the purposes for which permits may be issued.

1982-57-110; 1983-20-72, effective December 1, 1983 (B.C. Reg. 454/83); 1985-13-25, effective April 22, 1985 (B.C. Reg. 106/85).

Regulations by the minister

111. The minister may make regulations

- (a) designating employees of the Ministry of Environment by name or by their positions, as officers,
- (b) prohibiting, restricting or allowing access by members of the public to designated areas of the Province, for the purposes of wildlife management, and
- (c) providing, for a regulation made by him, that its contravention constitutes an offence.

1982-57-111.

Application of *Offence Act*

112. Section 5 of the *Offence Act* does not apply to

- (a) this Act, or
- (b) the regulations.

1982-57-112.

Consequential Amendments

113 to 122. [Spent. 1982-57-113 to 122.]

Wildlife Act Repeal

123. The *Wildlife Act*, R.S.B.C. 1979, c. 433, is repealed by regulation of the Lieutenant Governor in Council.

1982-57-123; 1983-10-25, effective October 26, 1983 (B.C. Reg. 393/83).

OMINECA-PEACE SUB-REGION

Grouse: The regional daily bag limit for grouse (blue spruce (Franklin), ruffed: sharp-tailed and ptarmigan) is ten of each species.

Compulsory Reporting

It is mandatory for all elk, mountain sheep, mountain goat, grizzly bear, cougar, caribou, bobcat, lynx and wolverine to be inspected. See Compulsory Reporting section on page 8 for designated reporting centres and those portions of an animal which are required.

Snowmobile and Vehicle Restrictions

- The use of snowmobiles to hunt wildlife, transport wildlife, or transport hunters to or from the location of wildlife is prohibited in M.U.'s 7-2 to 7-18, 7-23 to 7-30 and 7-37 to 7-39 from March 31 to December 15.
- The use of motorcycles and all terrain vehicles to hunt wildlife, transport wildlife or transport hunters to or from the location of wildlife is prohibited in M.U.'s 7-38 and 7-39.

- The operation of all vehicles to hunt wildlife, transport wildlife or transport hunters to or from the location of wildlife is prohibited:

- in that portion of M.U. 7-3 being the drainages between East Twin and Fleet Creeks (see Map G12). Vehicular access boundary signs will be posted.
- in the Quintette Mountain vehicle restricted area above the 1200 metre elevation contour. Transport of firearms is prohibited. See Map G11.

Notice to Hunters

- **No Shooting Areas:** Please note the Highway No Shooting Areas outlined on page 11.
- The discharge of firearms is prohibited on the west half of Lot 1323, Peace River District, on which Halfway Elementary School is located. See Map G22.

- Convention on International Trade-Export permits will be issued for grizzly bear, cougar, lynx, bobcat and wolf. See Notice to Non-Resident Hunters section on page 6, and Convention on International Trade section on page 8.
- Export Permits — Hunters planning to hunt in M.U.'s 7-19 or 7-20 and accessing by way of the Alberta border should note special recommendation in Export Permits section on page 8.

Parks and Recreation Areas

Hunters should note that big game seasons in most parks are under Limited Entry Hunting re-

strictions. Consult the current Limited Entry Hunting Synopsis for map details.

The following Parks and Recreation Areas are only open to the discharge of firearms during a lawful game hunting season:

- Carp Lake Park (M.U. 7-24). See Map G38.
 - Kwadacha Wilderness Park (M.U.'s 7-41, 7-42, 7-50).
 - Monkman Park (M.U. 7-21). See Kinuseo Falls Map G44.
 - Muncho Lake Park (M.U.'s 7-51, 7-54). See Map G24.
 - Stone Mountain Park (M.U.'s 7-50, 7-51, 7-54). See Map G36.
 - Stuart Lake Park (M.U. 7-25).
 - Tatlatui Park (No open season for mountain sheep) (M.U. 7-39).
 - Wokpash Recreation Area (M.U. 7-51).
 - Kakwa Recreation Area (M.U.'s 7-18, 7-19).
- Parks and Recreation Areas not listed above are closed to hunting and closed to the discharge of firearms.

OMINECA-PEACE SUB-REGION — OPEN SEASONS

MULE (Black-tailed) DEER and MOOSE Bow and Arrow Only Season

Management Unit: 7-15
 *Bulls: Sept. 1 — Sept. 9 1
 Bucks: Sept. 1 — Sept. 9 1

*Open only to bull moose having no more than 2 tines on one antler. The antlers must accompany the species licence.

MULE (Black-tailed) DEER

Management Units: 7-6 to 7-15
 Bucks: Sept. 10 — Nov. 15 1(1)
 *Bucks: Nov. 24 — Dec. 3 1
 Antlerless: Oct. 14 — Oct. 17

Management Units: 7-2 to 7-5
 Bucks: Sept. 10 — Nov. 3 1

Management Units: 7-19 to 7-22, 7-31 to 7-36, 7-43 to 7-47
 *Bucks: Oct. 29 — Nov. 20 1

Management Units: 7-42, 7-48 to 7-52, 7-54
 *Bucks: Oct. 22 — Nov. 8 1

*Open only for bucks with 4 or more points (tines) on one antler. Antler points (tines) must be at least 8 cm (3 in.) in length. The antlers must accompany the species licence.

Hunters are required to submit the antlers of all deer taken in M.U.'s 7-2, 7-3 or 7-4 to the Conservation Officer Service in Valemount while returning from hunting.

WHITE-TAILED DEER

Management Units: 7-2, 7-3, 7-4
 Bucks: Sept. 10 — Nov. 15 1
 Management Units: 7-19 to 7-22, 7-31 to 7-36, 7-43 to 7-46
 Bucks: Oct. 29 — Nov. 20 1

Hunters are required to submit the antlers of all deer taken in M.U.'s 7-2, 7-3 or 7-4 to the Conservation Officer Service in Valemount while returning from hunting.



LEGAL IMMATURE BULL MOOSE

Management Units: 7-2 to 7-18, 7-23 to 7-30, 7-38.

MOOSE

Management Units: 7-2 to 7-5, 7-7 to 7-18, 7-23 to 7-30, 7-38

**Calves: Oct. 4 — Oct. 26 1
 +Bulls: Oct. 24 — Nov. 3 1

Management Units: 7-2 to 7-18, 7-23 to 7-30, 7-38
 *Bulls: Sept. 10 — Nov. 3 1

Management Units: 7-39 to 7-41
 Bulls: Aug. 15 — Nov. 15 1(1)
 Antlerless: Oct. 1 — Oct. 31

Management Unit: 7-37
 Bulls: Aug. 15 — Nov. 3 1(1)
 Antlerless: Oct. 1 — Oct. 18

Management Units: 7-19 to 7-22, 7-31 to 7-36, 7-42 to 7-49, 7-55, 7-56

Bulls: Aug. 15 — Sept. 30 1
 Oct. 16 — Oct. 31

Management Units: 7-19 to 7-22, 7-31 to 7-36, 7-43 to 7-47

**Calves: Oct. 7 — Oct. 16 1

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CARIBOO SUB-REGION

CARIBOO SUB-REGION

(M.U.'s 5-1 to 5-16)

Regional Headquarters — 1259 Dalhousie Drive, Kamloops, V2C 5Z5

Sub-regional Office — 540 Borland Street, Williams Lake, V2G 1A8

District Offices — Alexis Creek, Quesnel, Bella Coola, 100 Mile House, Williams Lake

- Mule (black-tailed) deer buck season and antlerless season have been extended one week. Seasons for 3 point or 4 point or better bucks are open in some M.U.'s
- The season for antlerless moose opens one week later this year.
- A number of minor amendments have been made to vehicle and road closures contained in this section.
- Please note changes to cougar, coyote, black bear and fox seasons.

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Limited Entry Hunting

There are special restrictions for areas which support Limited Entry Hunting seasons. See Limited Entry Hunting section on page 11.

Bag Limits

Deer: The bag limit for mule (black-tailed) deer is two, one of which may be antlerless.

Compulsory Reporting

It is mandatory for all mountain sheep, mountain goat, grizzly bear, cougar, caribou, bobcat, lynx and wolverine to be inspected. See Compulsory Reporting Section on page 8 for designated reporting centres and those portions of an animal which are required.

Vehicle Restrictions

• The operation of all motor vehicles for the purpose of hunting, to transport wildlife or to transport hunters to or from the location of wildlife is prohibited on the following roads:

- Clusko-Thunder Mountain Forest Service Road (No. 7385) from a point 5 km (3 miles) north of the junction of the Clusko-Thunder Mountain Forest Service Road and the Clusko River (situate in M.U. 5-12).
- All of the side roads to the Lord River mining development road (situate in M.U. 5-4).
- The Nusatsum-Noelck Forest Service Road (B.C.

Forest Service Project No. 942-8130) southerly and westerly from km 5 to South Bertlick Arm (situate in M.U. 5-8).

- Talchako Forest Service Road southerly and easterly from km 3 (situate in M.U. 5-8).
- Michelle-Baezaeko Forest Service Road (Ministry of Forests Project 7872) westerly from km 50 (situate in M.U. 5-12 and 5-13).
- Roaring River Road (situate in M.U. 5-15).
- the Neechanz Forestry Development Road (situate in M.U. 5-7).
- 9700 Forestry Development Road (vicinity of Harvey's Creek, situate in M.U. 5-15).
- Clusko-Aneko Forest Service Road commencing at km 71 (situate in M.U. 5-13).

— All areas above the 1520 metres elevation in the area shown on Map E8.

- The operation of all motor vehicles for the purpose of hunting, to transport wildlife, or to transport hunters to or from the location of wildlife is prohibited in those areas shown on Maps E21, E22 and E23.
- The operation of unlicensed motorized vehicles for the purpose of hunting, to transport wildlife, or to transport hunters to or from the location of wildlife is prohibited in M.U.'s 5-12 and 5-13 from Sept. 1 to Nov. 27.
- The operation of unlicensed motor vehicles for hunting is prohibited year-round in that portion of M.U.'s 5-2 and 5-15 shown on Map E11.
- The operation of all motor vehicles is prohibited year-round in the area shown on Map E3.

