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I have been asked as a member of this panel to present the "preservationist" point of view in line with our policy in regard to the wild-life (bighorn sheep) management. In doing this, I would like at the beginning to clarify the word, preserve. To some this term means literally to maintain and protect without change.

Basically in the National Parks we manage normally to two basic objectives

- to the era concept which means we do manage to preserve a basic resource in such a condition that it will remain static. This may be necessary to preserve a species or to maintain a unique feature or eco-system. Examples could be the wood buffalo in Elk Island or the whooping crane in Wood Buffalo. In these cases nature is not allowed to determine completely the results.
- for the most part our National Parks are managed on an evolutionary concept, i.e. that nature is allowed to take its course as much as possible and that dynamic changes as in nature are taking place.

With regard to preservation then, we are essentially preserving the Parks under these two management concepts.

The policy states that, with regard to wildlife and nature, "objectives of nature in National Parks are important parts of the national heritage and should be preserved unimpaired for the benefit, education and enjoyment of future generations." The policy further states that "it is part of the National Park purpose to maintain the quality and beauty of wildlife in National Parks, i.e. to maintain healthy populations of native animals in balance with our environment. In a completely natural situation this could be accomplished by the steady pressure and persistent attrition of predators on animals of poorer condition." Modern hunting tends to reverse the natural process of selection by favouring the less fit.

I think no one here would argue that nature, if let alone, would produce the healthlest and best balanced natural population of the various species of flora and fauna. In line with this then, I would say our responsibility in most cases is to preserve that natural and dynamic situation. We must recognize in some cases the value of predators including disease and fire in this category and, with the development of skills to use these predators in our management techniques, we should not be fearful of the cycles which occur naturally affecting population numbers. Population peaks and crashes in nature do occur and do, in various ways, have beneficial effects.

Thus our preservation management needs for all species including sheep are clearly defined and in most cases, as mentioned previously, natural systems requiring no management would be the most desirable. However, because of such things as boundaries which do not encompass complete ecosystems and consequently the lack of some natural predators, the best we can hope for is a quasi system of natural management. Where we as man enter the picture with development and visitor use, some counter acting measures must always be planned and taken. With regard to sheep, the quality and health of their populations can only be

achieved if we consider several basic factors. These are:

- the amount of available range, particularly winter range.
- the total range or migratory area required has to be considered. If part of the range occurs outside the Park, what are the conditions that prevail there as well as inside.
- 3. density of animals on the range.
- other species present. What is the situation with regard to competition.
- predator conditions including disease.
- availability of mineral licks.
- 7. development should not fragment populations.

No single one of these factors can be considered by itself as each is related or dependent on others. Our big problem is perhaps the development of some index which would help us forecase conditions and help us take proper corrective action. In this regard we rely heavily on the Canadian Wildlife Service.

In general we could say that to take preventative measures to natural occurrences such as disease is to go contrary to our policy. In the pure sense, it may be but management requirements may dictate action because National Parks are not, in many cases, pure natural communities.

Pressures outside the Parks and from within often require that counter acting measures be taken. Most of you are aware, for example, that we have in the past reduced our sheep and elk populations in some areas. This, in fact, is in line with the "Leopold" recommendations in Park management of wildlife. The removal of sheep has always been by live transplant and many have gone to other parts of Canada and to the United States. In some cases the reduction has not been because of our management requirements but for the purpose of cooperating with another agency in the establishment of herds.

How do we determine what action should be taken? What are our objectives in wildlife management? Obviously the objectives must differ from Park to Park. For example, the purpose and objectives of managing buffalo would be entirely different between the three Parks of Wood Buffalo. Waterton Lakes and Elk Island. Our management practices and our reduction programs would, therefore, vary. At the present time our specific objectives are not as well defined as we would like them to be. Resource information with regard to environmental requirements and conditions. have, however, started on a very ambitious program which will lead us to achieve them ultimately. We have started an inventory program to give us resource information in all our National Parks. The schedule for this may take 10-12 years before completion. The priority is being given to new Parks. This inventory information will then be used in the preparation of Master Plans. The Master Plan will set out the Park theme and the objectives. These objectives will then be reflected in the Resource Management plan which will follow and, of course, the Resource Management plan will include wildlife management plans. You might be interested to note that we have also embarked on a program of conducting studies regarding the impact on the environment and the eco-systems as a result of development or use in the Parks. These impact studies will be a part of the development process and in some cases may well determine that a development is inadvisable. In the impact studies, wildlife requirements, migratory routes, etc., will be fully considered and I am sure that as a result many of the problems, such as fragmentation of animal populations will be minimized.

On this optimistic note I would close with thanks to the Chairman in asking National Parks to participate in this Conference.