

1994 NWS&GC MANAGEMENT WORKSHOP QUESTIONNAIRE RESPONSE: ALBERTA'S BIGHORN SHEEP MANAGEMENT PROGRAM

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QUESTION: Does your state or province have an identifiable sheep management program?

Alberta has a recently-formulated bighorn sheep management plan that is quite comprehensive in nature. It is a publicly available plan that contains information on the evolution of bighorn management in Alberta, the biology of the species, historical and current status, policy framework, management goals and objectives, and plan applications on a regional perspective.

QUESTION: What is your guiding policy statement?

The Fish and Wildlife Policy for Alberta (Fish and Wildlife Division 1982) establishes policy goals for the administration of wildlife resources in Alberta. These policy goals provide a framework for the formation of specific bighorn sheep management plan goals.

Resource Protection

1. "...The primary consideration of the government is to ensure that wildlife populations are protected from severe decline and that viable populations are maintained....

Resource Allocation

2. "...The wildlife resource, as a Crown resource, will be utilized in a manner which contributes the most benefit to the citizens of Alberta.
3. "...Wildlife will be allocated through a defined process whereby specific resources are deployed to specified uses in order to achieve stated public benefits.
4. The Division (Services) may allocate live wildlife for various uses such as game farming, game ranching, education, or science and zoological

displays in conformity with other aspects of the wildlife policy.

5. Wildlife must be allocated among different primary users in response to government policy. Until such time as supply and demand can be better rationalized, the following interim allocation guidelines will prevail in order of priority:

"...resident recreational use of game will have precedence over nonresident use. Wildlife stocks not fully allocated or utilized to higher priority uses may be allocated commercially to nonresidents.

6. The allocation of wildlife stocks to the different primary uses does not imply that other uses cannot occur within areas where such uses are entitled.

Recreational Use

7. A variety of wildlife recreational opportunities, in addition to hunting, will be available for the benefit and enjoyment of Albertans.
8. "A variety of hunting opportunities will be available for the recreational benefit of Albertans..."

Commercial Use

9. The division will encourage an environment that promotes the growth of the tourist industry..."

QUESTION: How do/did you do management planning?

The bulk of the management planning was initially done by the species coordinator (we no longer have species coordinators). Input was then solicited from regional biologists to provide more specific

information on local herd status, special management issues, land use issues, population goals, and hunting priorities. Draft plans were also reviewed by certain persons with experience in bighorn sheep.

QUESTION: What are your management goals?

Our management goals essentially involve resource protection and resource allocation amongst the various user groups:

Goal 1: To ensure that viable populations of bighorn sheep are maintained.

This will be achieved by protecting all existing wintering populations from overharvest, illegal hunting, disturbance, and disease, and by securing and maintaining all of the known wintering areas. To this end, all known winter ranges have been mapped along with associated summer ranges where these have been identified.

Goal 2: To ensure that populations and habitats are managed to meet the resource requirements of the recreational and economic goals and objectives.

Current population estimates have been identified along with harvest goals (numbers of trophy rams and ewes) for each of our sheep management areas. Population objectives for each area by the year 2000 have also been determined toward which harvest allocation and other management practices will be tuned to achieve. Harvest goals in terms of trophy rams and non-trophy sheep to the year 2000 have also been established.

Goal 3: To maximize the recreational benefits and enjoyment to Albertans from the bighorn sheep resource through the provision of a variety of types and amounts of recreational opportunities.

Two types of sheep hunting opportunities will be made available to residents. Maintain the current opportunity to hunt "trophy" (4/5-curl) rams, and as part of the population management strategy for maximizing the production of trophy rams, provide the maximum opportunity for residents to hunt "non-trophy" (ewes and lambs) bighorn sheep. The

harvestable surplus of trophy rams will generally be limited to 50% of the total number of trophy rams available and shall not be allowed to exceed 70%. At least 80% of the harvestable surplus of trophy rams will be allocated to recreational hunting by residents under an unlimited entry season. A 1-year wait-out period will apply to any successful trophy sheep hunter. Non-trophy hunting will generally be restricted to residents under a limited entry regime. The harvest of non-trophy sheep will not exceed 18% of the winter population of yearlings and ewes unless population levels are to be reduced.

Resident trophy seasons will generally open 1 week earlier than that for nonresidents and extend approximately 15 days beyond the closure for nonresidents to October 31.

A provision is made to provide a variety of opportunities to all Albertans for directly-related, nonconsumptive wildlife activities such as viewing, photographing, and scientific and educational activities that will enhance knowledge of bighorn sheep.

Goal 4: To optimize the economic benefit to Alberta from the commercial use of the bighorn sheep resource.

Provide the opportunity for outfitter-guides to contract nonresident trophy sheep hunters.

Provincially, a maximum of 20% of the harvestable surplus of trophy rams may be allocated to the outfitting industry. Nonresident hunting for trophy sheep and, hence, outfitting activities will be directed to more remote areas of the province to reduce conflicts with resident hunters. Nonresidents will be required to hunt with a licensed sheep outfitter who has been allocated a specified number of nonresident/alien sheep licenses which are valid only in specified wildlife management areas. A 4-year waiting period for successful nonresident/alien trophy sheep hunters will apply.

QUESTION: What methods do you use to reach them?

A standardized format has been developed to inventory most of the provincial sheep populations on a 2-year rotational basis. Only populations with well-delineated winter ranges and not widely dispersed, and with consistently more than 20

animals are surveyed. Results from these surveys have been used to establish future population goals as well as to determine annual permit numbers for non-trophy hunting seasons.

A well-established program of compulsory registration has been in effect for many years as a way of monitoring harvests and success rates which in turn are also used in the permit setting process.

Several long-term bighorn sheep research projects have been initiated (and still continue) to gather data on population dynamics. The data collected from these projects have had a direct impact on the current management program. Additionally, more short-term projects on local populations have been conducted primarily in response to some local issue of high priority. These projects have provided better information on population levels, seasonal range use, response to recreational/industrial developments as well as the causes and impacts of disease.

Regional biologists respond to local issues regarding sheep populations in their areas with whatever management programs they see fit and can afford in terms of manpower and budgets. Special habitat protection measures may have to be implemented or habitat enhancement projects initiated.

QUESTION: How much effort is devoted to reaching them?

To try and put a manpower and dollar figure on the effort expended on the sheep management program in Alberta is not easy. The level varies from year to year, depends on whether any special projects were initiated in response to some local issue, and more important than all is the ever-changing levels of staff and budgets. Considerably less effort is expended now than what was done 4 or 5 years ago.

The only programs which have not been affected severely by changing economic times and that are maintained each year are the compulsory registration program, annual permit setting process, and population inventory. The division has also maintained its involvement in 2 sheep research programs.

The compulsory registration program involves administration and enforcement staff time to

register animals and process forms as well as the time of a technician for computer entry. Bighorn sheep are only a small portion of the harvest statistic program which is maintained for all species in Alberta. Considering the relatively small number of sheep harvested in Alberta (approx. 230/yr), about 1 person-month would be devoted to harvest statistics at an estimated cost of \$3,000.

The local management of bighorn sheep falls mostly under the jurisdiction of the 4 area wildlife biologists with sheep in their regions. They are responsible for implementing any sheep management programs required including population inventory, permit setting for non-trophy sheep, any habitat enhancement projects, and any research projects. At present, the actual time involvement varies between individuals, but would probably average 1 person-month per year (probably a bit generous) at a total cost of about \$18,000. This puts the total manpower expenditure for sheep management in Alberta at around \$21,000.

QUESTION: What is your operating budget for sheep management?

An allotment of about \$12,000/year is made toward helicopter time to do population inventory in various parts of the province. This is an indirect expenditure since the aircraft belong to the government and their use (and budget) comes from another department. We are, however, allotted a certain number of hours each year with which to do surveys. The \$12,000 is the cost to the government of operating the aircraft for the approximately 30 hours given annually for sheep surveys. It is significantly less than what it would cost us to charter from the private sector.

Additional monies allotted toward sheep management might come to about \$5,000 per year and would include general operating expenses related to the harvest statistics, research programs, habitat enhancement programs, or other programs initiated by regional biologists. In 1993 about \$16,000 of additional money was contributed by the division (mostly in the form of equipment) to research programs involving sheep. Most of the monies used for research projects come from sources outside of the division.

The Fish and Wildlife Services total budget is \$29 million.

Other Agency Participation in Sheep Management in Alberta

The only other agency that devotes time toward bighorn sheep management is the Canadian Parks Service (i.e., federal government). Their primary management effort goes toward population inventory, monitoring of specific populations, and habitat enhancement programs such as prescribed burning. While the primary goal of the burning is not solely to enhance bighorn sheep range, sheep invariably benefit from it. The burning is more related to returning successional vegetative states to a more natural order before fire suppression became vogue. The National Parks Service also maintains a rather intensive branding program of adult rams in an effort to discourage poaching. Since this is more enforcement related, I have not included any manpower costs.

The Canadian Parks Service allots approximately \$12,000 annually for aircraft time performing inventory work, although surveys are conducted every 3 years on a rotational basis. Prescribed burning programs vary considerably from year to year in activity levels. About 1,000 hectares has been burned per year for the last several years at a cost of about \$20 per hectare. The Canadian Parks Service has also made significant contributions toward various research programs involving sheep both on and off federal lands. In 1992/93, \$30,000 was contributed toward sheep research, and another \$20,000 was contributed in 1993/94. This contribution consisted of equipment, manpower, and monies.

The manpower commitment from the Canadian Parks Service is equivalent to about 7 or 8 person-months per year, or about \$35,000 per year.

Additional Funding and Foundation for North American Wild Sheep Participation

Funding for research projects has generally come from sources other than the Fish and Wildlife Division. For the last 2 years, contributions have amounted to about \$83,000 per year. These sources are mostly from other government granting agencies, from private groups (Fish and Game

Associations, etc.), from private companies (oil and gas, or coal mining), or from university grants.

The only money received from the Foundation for North American Wild Sheep (FNAWS) was \$500 to help finance a research project on Ram Mountain in 1993. Other requests from FNAWS have been turned down.

The Fish and Wildlife Division does not have any special hunting permits for sheep that are donated, auctioned, raffled, or given away in some other manner as a means of raising funds for bighorn management. The idea has been suggested several times and gone through several discussion stages, but nothing is contemplated for the near future.

DISCUSSION

Alberta has a very comprehensive management program for bighorn sheep. It outlines fairly specifically the goals and objectives as to how the sheep resource will be protected (populations and habitat) and how the resource will be allocated among the various user groups. Recreational hunting is clearly defined in terms of harvest goals, allocation between residents and nonresidents, types of hunting opportunities, seasons, and restrictions to that hunting opportunity should the resource be threatened.

Of all the components in the program, however, there are only a few which one could say are consistently delivered including population inventory, compulsory registration, and permit setting. Unfortunately, in this era of declining manpower and resources, even some of the systematic survey programs are taking a back seat to other higher priority programs.

Other aspects of the program such as habitat protection, habitat enhancement, research goals, and non-consumptive objectives are more vaguely outlined. The objectives appear more as guidelines or things that would be good to do if resources were not a limiting factor. Their implementation is left to the local wildlife biologist to initiate depending on their other priorities.