

BIGHORN SHEEP, MOUNT ALLAN, AND THE 1988 WINTER OLYMPICS: POLITICAL AND BIOLOGICAL REALITIES

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*Abstract* In November 1982, the government of Alberta announced that the alpine skiing events of the recently awarded 1988 Olympic Winter Games would be held on Mount Allan, about 90 road km west of Calgary. Mount Allan is part of a mountain complex that supports a population of about 300 bighorn sheep (*Ovis canadensis*). In proceeding with the development of Mount Allan, former Premier Peter Lougheed and his colleagues contravened provincial, national, and international agreements respecting the wildlife resource. The ecology of the sheep population is not well known. Human activity on sheep range is becoming intensive and will escalate. Provincial policies that reflect a strong anti-wildlife philosophy, and the kinds of developments completed or underway in the Mount Allan area are identified. The sheep population, hitherto problem free, is endangered.

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When John A. Allan, pioneer geologist and mountain explorer, strode high above Ribbon Creek on a gently contoured mountain with impressive grass-covered shoulders, he could not possibly have foreseen the controversy that would later involve that mountain. A mountain which later came to bear his name (Fig. 1). During those visits he very likely saw bighorn sheep and probably recognized the area as exceptionally fine sheep range. Today we recognize Mount Allan as part of a mountain complex supporting about 300 bighorns, one of the largest herds under the jurisdiction of the Province of Alberta and a herd which has not, until recently, been associated with any management difficulties.

When the development of Mount Allan became an issue in Alberta, the future of the bighorn sheep population also became an issue. What was known of this sheep population - its numbers, movement, and ecology? The answer, unfortunately, was not a great deal. More time, money, and effort has since been expended by politicians, committees, and those with vested interests, to assure the public that they have nothing to worry about than has been spent on obtaining basic inventory and ecology data for the Mount Allan sheep population (not to mention the elk, *Cervus elaphus*, mule deer, *Odocoileus hemionus*, and grizzly bear, *Ursus arctos*, populations).

Does there exist a wildlife conservation problem on Mount Allan? Is the concern real? As it turns out, there is more to this issue than just the Olympics. Picture an exceptionally inviting alpine expanse within two km of a paved road and only 90 km from a city of over 600,000 people; with a developed trail, the Centennial trail, leading up the spine of that mountain and through critical sheep winter/spring range, through escape terrain and through a lambing area. Picture a youth hostel at the base of this trail; a major hotel development underway near the hostel; a ski development with lodge and all facilities equally close

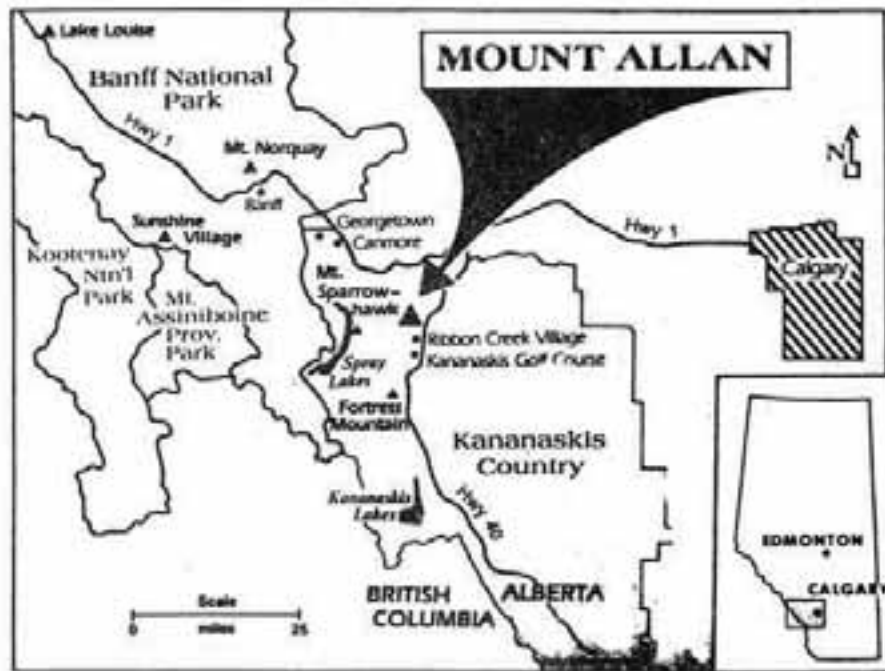


Fig. 1. The location of the Mount Allan study area in southwestern Alberta.

by, and whose upper runs impinge on alpine sheep winter/spring range; a 36 hole golf course and an immense recreational vehicle campground (227 sites spread over 60 ha) as destination points only kilometres away from the mountain; a high level of hunting activity; a relatively great frequency of helicopter overflights; a hiking trail cutting the base of Mount Allan that may have carried up to 45,813 visitors in 1984 (Holden 1985); and, in February of 1988, a period critical to the overwinter struggle every wildlife population faces, a flood of security people (including helicopters and other equipment) that may exclude sheep from the Mount Allan winter range for at least three weeks. And you ask if there's a problem!

#### METHODS

Field investigations were conducted by Garry E. Hornbeck and the author. We made 30 day-long visits to Mount Allan between 23 May 1984 and 20 June 1985. The objective was to count and classify the sheep using the winter range from the peak of Mount Allan south and east including that part of an adjoining buttress, Mount Collembola, visible from the Olympic ski development. The same route was followed on each visit to the mountain. Sheep were classified according to Geist (1971). The project was funded by the Foundation for North American Wild Sheep.

#### RESULTS AND DISCUSSION

Considerable numbers of sheep occupy that part of Mount Allan within the immediate sphere of influence of the ski development (Fig. 2).

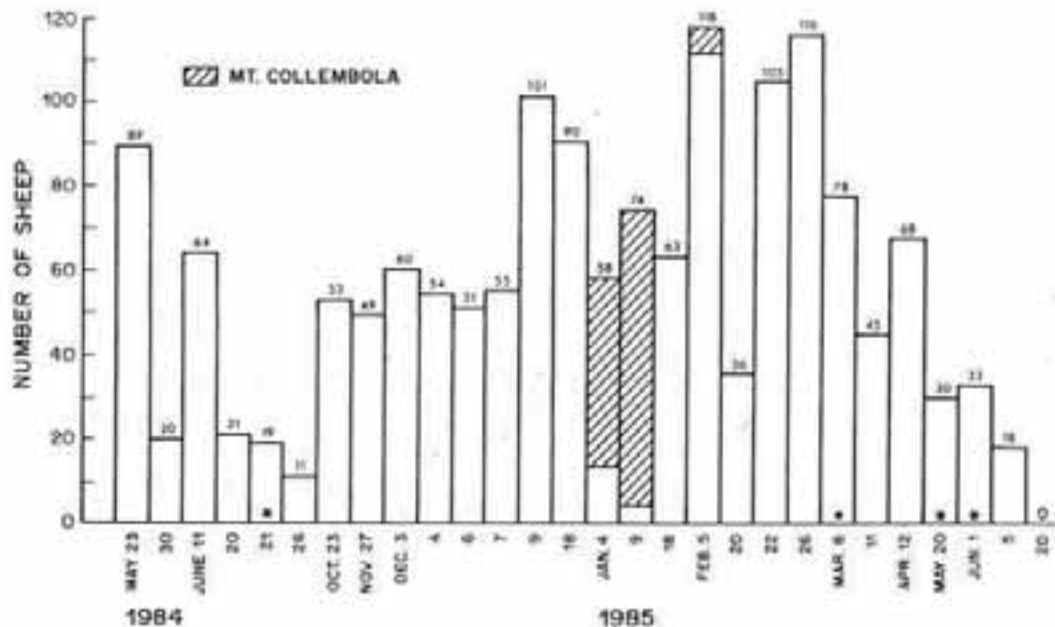


Fig. 2. The total number of sheep observed on Mount Allan during 28 visits between 23 May 1984 and 20 June 1985. Asterisk denotes incomplete count.

Up to 39 females two years of age or greater relied on Mount Allan for winter range (Fig. 3). At least 35 females were observed during the rut and during the mid winter Olympic period. Equally as critical, up to 26 females were found on Mount Allan during the lambing period and, in spring of 1984, we observed 10 newborn lambs in the cliffs on the southeast slopes of the mountain (Fig. 4). Two of these lambs were observed shortly after birth and before they gained full motor abilities. During the winter of 1984/85, at least 22 lambs relied on Mount Allan range for at least part of the winter. Judged on the basis of lamb: female ( $\geq 2$  years of age) ratios (Fig. 5), those sheep that used the southeastern benches of Mount Allan from fall through spring were relatively successful, with the mean lamb:female ratio, based on 17 days observation, being 55 lambs per 100 females. However, in spring 1985, we were unable to locate any newborn lambs on the southeast slopes of Mount Allan prior to 20 June.

The number of rams ( $\geq$ Class I $\sigma$ ) observed reached 23 during the rut but peaked at 45 during the Olympic period in February (Fig. 6). Observations during the latter period also yielded the highest male: female ratio (141  $\geq$  I $\sigma$ :100 females  $\geq 2$  years of age).

The important conclusions are that 1) at least 40% of all the sheep in the population depend at least partially on Mount Allan winter range, 2) at least 101 animals were present on the lower slopes of Mount Allan during the rut, and 3) the greatest number of sheep were observed on Mount Allan during February, the month during which the Olympic alpine events will take place.

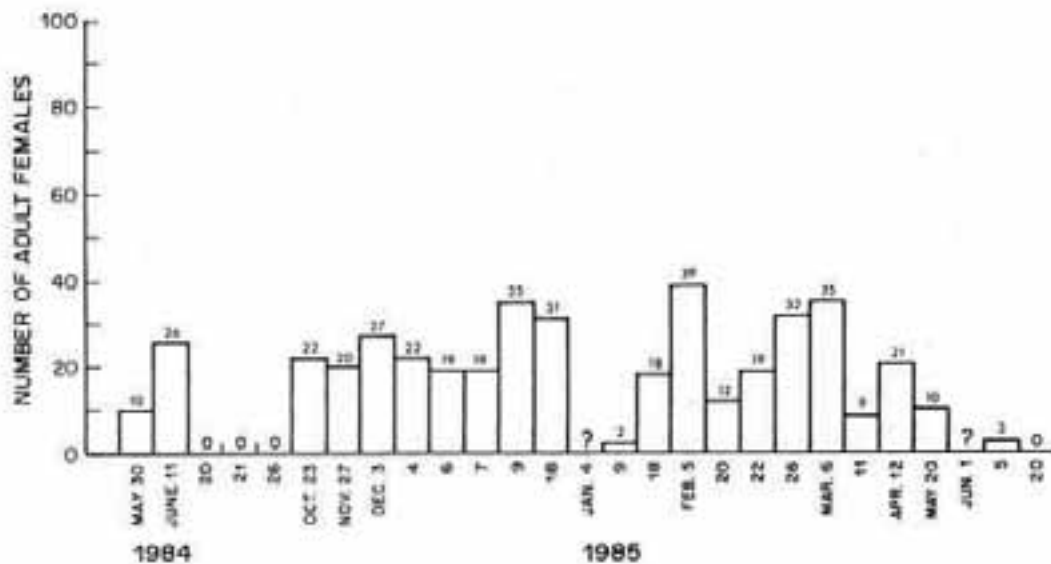


Fig. 3. The number of adult female sheep ( $\geq 2$  years of age) observed on Mount Allan during 27 visits between 30 May 1984 and 20 June 1985. ? denotes females present but count not obtained.

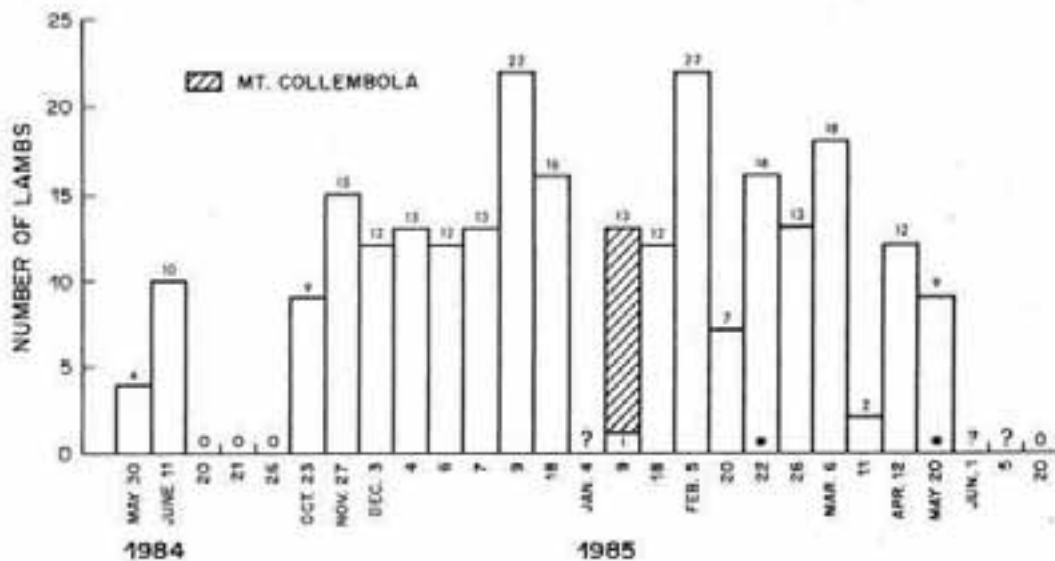


Fig. 4. The number of lambs observed on Mount Allan during 27 visits between 30 May 1984 and 20 June 1985. Asterisk denotes incomplete count. ? indicates lambs present but count not obtained.

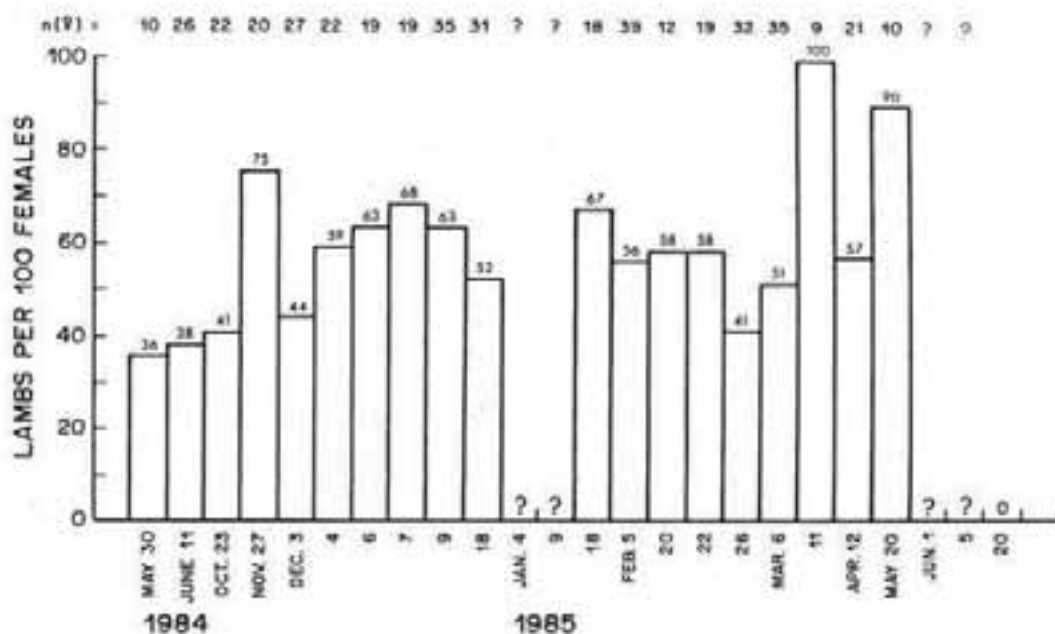


Fig. 5. Ratio of lambs per 100 adult females ( $\geq 2$  years of age) observed on Mount Allan during 24 visits between 30 May 1984 and 20 June 1985. ? denotes lambs and females present but counts not complete.

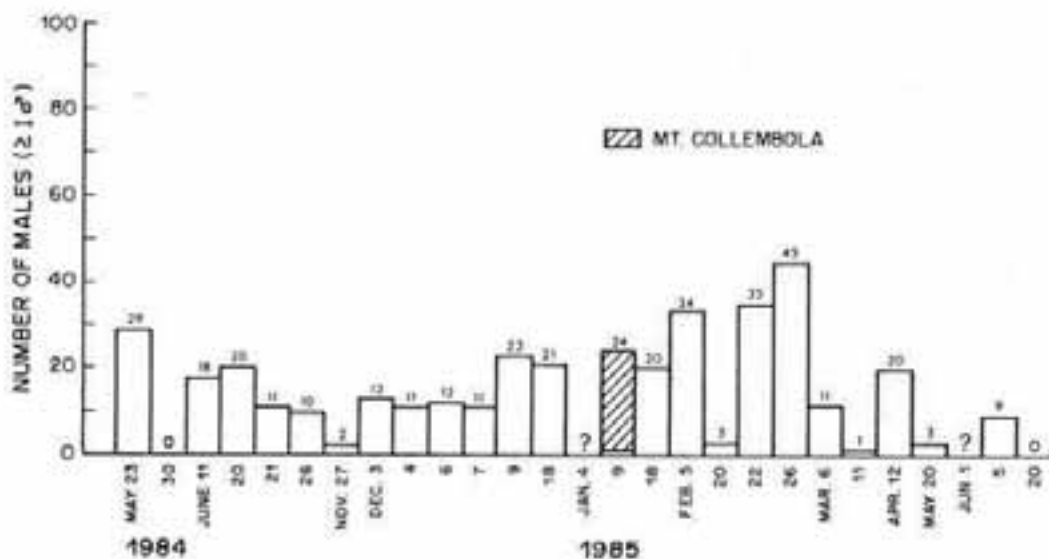


Fig. 6. The number of rams ( $\geq$ Class I) (after Geist 1971) observed on Mount Allan during 27 visits between 23 May 1984 and 20 June 1985. ? indicates rams present but count incomplete.

The Mount Allan story came to prominence in November 1982 when the government of Alberta officially announced that Mount Allan had been selected as the site for the 1988 Winter Olympic alpine ski events. This story, however, had begun long before that date; possibly as early as the 1960's, with the election of a government led, until 1985, by Premier Peter Lougheed. His government consistently demonstrated an anti-wildlife, anti-public lands, anti-conservation bias, a position that became particularly aggressive and overt in recent years.

On 30 September 1981, the Calgary Olympic Development Association (CODA), with the support of the government of Alberta, was awarded the 1988 Olympic Winter Games on the basis of a presentation focussed on Mount Sparrowhawk, a rugged mountain just a few km southwest of Mount Allan. The Olympic Games Organizing Committee (OCO '88) was formed to manage the games.

The deception and flow of misinformation that has made the 15th Winter Games a political and environmental fiasco began almost immediately. The government of Alberta announced, shortly after the province had been awarded the games, that there would be a site selection process. The games had just been awarded on the basis of a Mount Sparrowhawk development proposal but now there would be a site selection process. The developer whose proposal formed the heart of the Olympic sales pitch later called the decision a "hoax" and an "insult to the country" (Cotton 1982a).

In retrospect, there should not have been a great deal of surprise. Mr. Lougheed had long spoken of his vision of a world class recreation center in the mountains of southwest Alberta, and Mount Sparrowhawk was on the wrong side of the mountains. Mount Allan, on the other hand, was adjacent to an almost completed 36 hole golf course, the prepared site of an alpine village, and the probable site of a hotel. Still, Mount Allan had not officially been made the choice for the olympic development but rather, was listed as one of the possible sites.

Private developers were asked to submit development plans and several did so, including proposals for Mount Allan. Still the government continued to play charades, as though a selection process were actually underway. In reality, the decision had been made, as evidenced by the following. In October 1982, at a public meeting of OCO '88, the following statement was made during a heated discussion between two members "come on Ed, you and I were both there when the Premier told us Allan was the site" (Jeffery and Wilford 1983).

The government was in a difficult position, or so it would seem. In 1978, Mr. Lougheed had proposed a series of alpine residential villages throughout the mountains of western Alberta. In response to this scheme the Alberta Fish & Wildlife Division had cursorily identified the Mount Allan area as extremely valuable wildlife habitat - valuable enough, in fact, to enter into a written agreement with the Department of Tourism

that the area would not be developed. The ministers responsible for the Department of Recreation, Parks and Wildlife, Al Adair, and Tourism, Bob Dowling, signed that agreement in late 1979. It now stood in the way of a Mount Allan decision. The solution to this dilemma proved to be simple - ignore the agreement - and so it was that the people of Alberta saw the first in a series of betrayals by elected people entrusted with safeguarding the province's wildlife heritage.

On 9 November 1983 OCO '88 announced what they and the ministers responsible for government departments had known for some time - Mount Allan would be the site for the Olympic alpine events (Cotton 1982b). But they were still trying to ease their flip from Mount Sparrowhawk to Mount Allan by saying they would develop Mount Sparrowhawk as a training facility for Canada's ski team (Cotton 1982b). Some cabinet ministers now tried to isolate OCO '88 as the source of these decisions, recognizing that the public was beginning to view the whole situation with suspicion. In March 1983 Parks Minister Peter Trynchy stated that no one in the government had told OCO '88 to hold the alpine events on Mount Allan (Calgary Herald 1983a). Other members of the legislative assembly misled the public by stating that the International Ski Federation (FIS) had selected Mount Allan as the site for the Alpine events (Embury and Koper 1984). This was interesting in view of the fact that as late as March 1985 the FIS publically stated that Mount Allan's men's downhill run did not meet Olympic standards (Pratt 1985).

On 29 April 1983, two pertinent public announcements were made. Frank King, Chairman of OCO '88, released a letter addressed to the Federal Government asking that Lake Louise, a ski development in Banff National Park, be considered as a site for the Olympic downhill ski competition. That same day, Tourism Minister Al Adair, who had been the Minister of Recreation, Parks, and Wildlife when he signed an agreement in 1979 not to develop Mount Allan, announced that Mount Allan would be developed and financed by the Province not just as an Olympic site, but also as a day-use recreational ski area for Albertans, and as a training facility for competitive skiers. I underscore by the Province because during mid and late 1982 none of the private developers initially lined up to grab a piece of the Olympic gold were prepared to commit themselves once they had taken a serious look at Mount Allan - it readily became apparent to them that it was highly unlikely that this area could be built and operated economically, no matter what scale of development was planned (Cotton 1983). The cost of the provinces new development was estimated at \$25 million - I predict final costs will exceed that sum by many millions of dollars. A Calgary member of the legislative assembly sanctimoniously defended the provinces funding as a job creation project (White 1983) - hardly the Olympic ideal. In summary, the provincial cabinet, all self proclaimed advocates of free enterprise, had sanctioned development of a ski hill with taxpayers money, on one of Alberta's finest bighorn sheep ranges, and within 15 km of an existing, privately operated ski hill known as Fortress Mountain.

As this fiasco continued, other issues surfaced. In 1980 Canada had endorsed the World Conservation Strategy (WCS). Alberta was one of the first provinces to support the federal position. Some of the priority issues addressed by the WCS are a narrow sectoral approach to conservation, failure to integrate conservation and development, inadequate environmental planning, inadequate or unenforced environmental legislation, lack of trained personnel, lack of information, and lack of support for conservation (Inter. Union Conserv. Nat. & Natur. Res. 1980). It's almost as if the strategists behind the WCS had Alberta in mind when they wrote that list, for each and everyone of those concerns applies directly to the province and specifically to the development of Mount Allan. As signatories to the WCS, it is apparent that Alberta, and Canada (hundreds of millions of federal dollars are being poured into the Olympics) have knowingly broken the spirit of that convention. Both levels of government may have broken the letter of that convention as well (Geist 1983a) since one of the agreed upon steps to implementing the WCS is to review developments in relation to each conservation objective. Five years after the initial Olympic decision was made, at a time when development is almost complete, this has not yet been done.

As though the obvious violation of the World Conservation Strategy were not enough of an embarrassment, the Guidelines for Wildlife Policy in Canada (1983) were also ignored. This policy was developed over a two year period by a federal/provincial committee and approved by all provincial wildlife ministers in September 1982. The document states that "by approving these guidelines, governments have agreed to the goals, principles, and elements" that constitute those guidelines. The first goal of the policy is "To maintain the ecosystems upon which wildlife and people depend" (Dep. of the Envir. 1983). The Mount Allan development demonstrates a clear lack of commitment to wildlife conservation by a select group of Albertans, including Premier Lougheed and the Minister responsible for wildlife, Don Sparrow.

At the time Mr. Adair announced that the government of Alberta was going to develop its own ski hill, he also announced that a master plan would be prepared. This Master Plan was to address all concerns, including the environmental ones, most of which related to the future of the bighorn sheep population. Mr. Adair had earlier announced there would be no impact assessment done on the Mount Allan development.

Concern for the bighorn sheep population on Mount Allan was expressed the moment Mount Allan was mentioned as a possible development site. The Alberta Wilderness Association was among those who voiced early opposition, not just to the choice of Mount Allan, but to the process by which decisions were being made - completely without public input or review (Alberta Wild. Assoc. 1983). The Wilderness Association and representatives from a number of other interested groups met with OCO '88 in November 1982 and were told that the Olympic Committee was not responsible for environmental matters but that they would try to persuade government to take these matters into consideration. A further meeting was scheduled for January 1983, was then delayed, and never did materialize.



In December 1982 the suggestion was made that OCO '88 add an environmental advisor to it's staff. In February 1983 the chairman of OCO '88, Frank King, indicated publically that OCO '88 had set up an environmental advisory board. The "board" was never formally appointed and has never met. The staff environmental advisor has never been seen nor heard from.

As it became apparent that there would be major impacts on the Mount Allan environment, the initial concerns became a flood of protest (Calgary Herald 1983b; Geist 1983a; Geist 1983b; Geist 1983c; Flattau 1983; Stemp 1983; Western Canada Outdoors 1983; Zeman 1983). Noticeable by their absence were the Alberta Fish and Game Association and the National and Provincial Parks Association of Canada (NPPAC). Both of these groups chose to play ball with the provincial government, the first because it had a vested interest it was trying to protect, the second because of a wavering commitment to a principle. The Fish and Game Association had been negotiating with the province who was promising the Association it's own ranch on which a handful of members would manipulate habitat and wildlife. In its desire to get this private playground, the executive of the Association sacrificed the best interests of it's membership by remaining silent on the Mount Allan development. In so selling their principles, they were choosing to overlook government policies and developments detrimental to public lands and wildlife. The NPPAC was concerned that opposition to the development of Mount Allan would force the federal and provincial governments to hold the ski races at Lake Louise in Banff National Park. They were trying to protect the sanctity of the Park, but seriously bending a principle in doing so. It could well turn out that, by remaining silent, they will have lost both battles. Mount Allan is already developed but the prospects of the Olympic alpine events being held in Lake Louise, because of the inadequacy of Mount Allan, appear as of April 1986, to be stronger than ever. This in spite of a Citizens Advisory Committee recommendation that a "more acceptable men's downhill course" could be found on Mount Allan and that such a course be identified and it's approval by the International Ski Federation be sought (Citizen's Advisory Committee 1983). The committee did, however, leave itself an out with respect to Lake Louise, stating that if a satisfactory men's downhill course was not available on Mount Allan, Lake Louise should be used.

Provincial politicians, as insensitive as they were (and remain) to the real concerns being raised, tried not to solve the problems the public was pointing out but instead, tried to quell the public dissent by announcing the formation of a Special Committee for Review of Wildlife and Environmental Matters. It's mandate was to respond to public concerns and develop mitigating measures. The committee, chaired by Director of Fisheries Tom Mill, proved to be a complete failure. In retrospect, failure was built into the committee; it did not include an individual with bighorn sheep or large mammal expertise, consisted only of government employees and therefore had no independence, had no mandate to implement base line data collection or monitoring programs, had no decision making power, and had no funds to allocate. It quickly began to function as a shield for the Premier and his colleagues, a vacuum that prevented the penetration of public concerns and interests

to the elected cabinet.

It soon became evident that public concern for the bighorn sheep on Mount Allan was not going to dissipate. The government then began to point to the Master Plan as being the solution to environmental concerns and, in particular, worries about the welfare of the sheep (Calgary Herald 1984). It was therefore with great anticipation that Albertans received the Master Plan in May of 1984. With all the interest expressed regarding bighorn sheep and with at least 18 months having passed since Mount Allan had been chosen by the Premier as the ski development site, there were expectations that the Master Plan would be one of substance. Instead, it was a disaster. There was bitter disappointment and immediate critical reaction (Geist 1984; Horejsi 1984). Reviewers of the plan were appalled by its superficial treatment of the environmental assessment process, its methodology, the sheep population and sheep biology. Equally disturbing, it contained serious errors. For example, the map of sheep habitat in the plan did not agree with that available from the Fish & Wildlife Division. The Division's map, although more accurate than that in the plan, was incomplete, perhaps because administrators felt Mount Allan was protected by the 1979 agreement between the Departments of Wildlife and Tourism. The chairman of the International Union for the Conservation of Nature Commission on Environmental Planning stated that "the Olympic committee (the developers) is clearly disinterested if not actively opposed to dealing with the issue" of bighorn sheep (Jacobs 1984). Outside observers described the plan as woefully inadequate (Hutchins 1985). Even the gentlemanly Canadian Society of Environmental Biologists, consisting mainly of corporate biologists who have to choose their words carefully, requested "clarification" (Kennedy 1984). Coming from them, that was serious language!

The Fish & Wildlife Division was pointedly excluded from the planning process, contrary to claims in the Master Plan. This we can attribute to Don Sparrow, Minister responsible for the Division, who has slowly but methodically emasculated the agency. No individual with wildlife credentials was involved in plan preparation, although the plan deliberately deceived the public by stating "respected professionals with expertise in wildlife habitat and behavior" prepared the plan. The one individual involved was a botanist who spent 120 hours on Mount Allan over a 5 year period. This equates to 24 hours per year. His bighorn sheep observations were a post hoc recall of events and locations. Geist (1984) bluntly condemned the plan; this "simple minded projection of bighorn range from plant communities is wrong and unacceptable".

The wildlife part of the Master Plan cost \$14,000 out of a budget of \$500,000. Fortunately, the deliberate lack of attention to wildlife concerns is obvious to even the untrained eye; there was no evidence that ecological considerations had been integrated in the development design; scientific evidence regarding the consequences of intensive development on bighorn ranges had been ignored; there was no consideration given to the cumulative effect of all the developments in, and proposed, for the Mount Allan area; use of weather and snow data was extremely selective, suggesting a calculated attempt to manipulate results; and

the understanding and presentation of bighorn sheep biology was totally inadequate. On page 140, where the development budget was given, zero dollars were allocated for environmental concerns. The plan has proven to be sham - part of a deliberate attempt to mislead the public about the severity of the environmental impact resulting from the development of the Mount Allan area.

#### CONCLUSIONS

Observations indicate that a significant number of the sheep that occupy the Mount Allan mountain complex rely on the slopes of Mount Allan for rutting and winter/spring range. If there is any turnover in the winter population, as I expect there is, and assuming there is yearly variation in the number of sheep using Mount Allan/Collembola, than easily half of the animals in that population rely on Mount Allan to sustain themselves over winter.

The threat to these animals is not physical loss of habitat. It follows, therefore, that habitat enhancement is not a solution but is instead a political ploy and a terrible waste of money. The threat is a wave of humans that is beginning to and will increasingly prevent sheep from exercising their behavioral and ecological options. I draw the human analogy of not being able to use one or two or three rooms in your house. The implications are extremely serious. In the case of the bighorn sheep on Mount Allan the result will be a sharp reduction in the fitness of individuals. This has grave consequences for the future of this sheep population. It's status has changed from problem-free to threatened.

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