

range in the west is outside of wilderness, and some of our best and most productive herds are outside of wilderness.

Some of our most critical problems of harvesting, proper harvesting of the elk crop, are in wilderness areas, and——

Senator HANSEN. Why is that?

Mr. CLIFF. Well, it is because wilderness and primitive areas are relatively inaccessible, and we don't get the hunting use that is needed to properly harvest game crops.

Right north of the two DuNoir drainages, is the 450,000 acre Teton Wilderness. There are no livestock in there, except packer stock, and one of the most critical big game management problems we have is in that Teton Wilderness because it does not get adequate harvesting.

There are problems of over protection of these big game herds that have to be dealt with, and two of the notable ones are in this general area—the northern Yellowstone herd and the Jackson Hole herd.

There are other examples where in the West, some of our best and most productive elk herds are in areas which are developed and used for multiple purposes, and they are accessible. The elk migrate, and they calve, and they can be protected without the wilderness designation.

I could name dozens of situations if I had time, and give you the evidence that this is the case. So I don't give much credence to the argument that you need wilderness status to protect elk habitat.

Senator HANSEN. One of the concerns that I have heard expressed a number of times is the effect that a timbering operation will have upon game hunters. Under that broad overall question, two statements immediately come to mind.

One is that the elk habitat, or the game habitat, will be changed rather markedly with a timbering operation. No. 2, that as a timbering operation proceeds, if it is done in the manner that I think most of us have seen put into application in this part of the country, it will bring with it the opening up of an area with innumerable roads.

Now what, in your judgment, will be the effects of these two situations on the management of game animals?

Mr. CLIFF. Well, in the first place the opening up of the dense forest stand, by timber harvesting, if it is done properly, will improve forage for big game.

There are many examples of this across the country. You get a growth of shrubs and lesser vegetation that is desirable for big game.

You increase the so-called edge effect—the mixture of openings and edges—which is desirable for big game habitat, if it is properly done. I can cite many examples of this, where it has been beneficial to deer and elk, particularly.

Now the other impact, the one of roads, which makes the elk range more accessible, of course exposes the big game animals to more hunting, which in many cases can be desirable. It exposes them to some interference that was not there before the roads were built.

These things can be controlled. The control of hunting is a function of law enforcement and game regulation. This can and is being done, all the time, by State game departments, by fixing the seasons and bag limits, and limiting hunting, if necessary, as I pointed out in