

influence the heavy cutting of forest in local areas, particularly since the war, in a number of areas has had on the regular flow of waters. I mean, broadly speaking, I do not want a detailed answer.

Mr. McLEOD: Well, broadly speaking, Mr. Martel, the forest cover of a river drainage area should tend to slow the flow, particularly in rising stages. The shade provided by forest cover, for instance, will operate to hold snow in the spring and will reduce its rate of melting. The other feature is, too, that the clearing of land unless it is done carefully tends to allow the land to erode and causes a certain amount of sedimentation in water in the river etc.

Mr. MARTEL: We must have read some reports that there is too heavy forest cutting in certain areas, according to some experts. That is why I felt it may be good to know if this has an influence. It has, of course, an influence on the flow of water but the degree, I do not know.

Mr. McLEOD: I think in general terms one might say that the change in the vegetal cover of the drainage area of a river does, of course, have an effect upon the regimen, if you like, of the flow. That factor is probably more noticeable in a small stream of a limited drainage area than it is on a large river where you might have quite a variety of land covers ranging from forest to cultivation, etc. I do not think there is any really quantitative answer to your question as yet. I do not think it would be remiss to mention that the eastern rockies forest conservation board in this aspect of river flow and water supply is undertaking, in conjunction with officers from our own branch and several other agencies of government, further studies on this matter. It will not be one which is subject to quick answer because it will take a number of years of measurement to provide enough base data to enable any conclusions to be drawn as to the differences.

Mr. MARTEL: Are there any other similar programs in any parts of other provinces?

Mr. McLEOD: Not with which we are connected in any event.

The CHAIRMAN: We do have a heading here for discussion in respect of conservation later on. Perhaps we might pursue the matter at that time.

Mr. MITCHELL: I do not know whether or not this is a proper place to present this, although it is under the water resources branch. I am referring to the Harricanaw river project. As the water resources branch will probably be with us at our next meeting I will bring this up at that time.

The CHAIRMAN: We will endeavour to cover various regional problems later on. They will probably be more appropriately taken up at that time.

Mr. MITCHELL: The engineer in Sudbury is well known to me. We have been talking about this for some months. I noticed by today's *Globe and Mail* that he has presented his brief to the Minister of Water Resources in the province of Ontario. I have considerable information on this, including a copy of a letter to the hon. Mr. Hamilton which Mr. Kierans has written. I assure you you may think he had been dropped on his head when he was young, and perhaps me as well, in presenting this, but I assure you that, although it may seem fantastic, it has a certain amount of merit. I would like to present this to the committee at the next meeting.

Mr. MARTEL: That is of interest to me because the Harricanaw river flows in my riding. I do not know of the project except what I read in the paper.

Mr. McLEOD: Is the newspaper reference a recent one?

Mr. MARTEL: There was one this morning.

Mr. MITCHELL: I have here a copy of the original map supplied by Mr. Kierans to me and also the newspaper item which is dated January 23.

Mr. McLEOD: We have that.