

*Floods in British Columbia*

local construction, either constructed privately, by municipalities or by the province. Such ordinary floods, therefore, cannot be classed as any concern of the federal government. They are matters of local concern.

The Fraser river flood this year, however, is a very different matter. There are three factors which have combined to make the flooding of the Fraser river and its system a catastrophe almost unequalled in the history of British Columbia. On all our four principal mountain ranges, the coast range, the Cascades, the Selkirks and the Rockies we had an unusually heavy snowfall. That in itself would have resulted in a very substantial run-off. Secondly, this year we had a very cool slow spring. There was very little warm weather to begin the process of melting snow, so that the river could take an ordinary run-off of this water. Thirdly, three or four weeks ago we had an unusually hot spell of weather, the temperature going to 80, 90 and almost 100 degrees in the interior of British Columbia. Any of these three factors would not have resulted in the floods we have had; but all three of them coming together have resulted in a situation which has not been equalled since 1894. As a consequence of this combination of circumstances, we find that almost the entire Fraser valley, and large portions of the delta area in the riding of New Westminster, are under three, four and five feet of water.

Attempts have been made to apportion the blame around. I do not think blame can be laid to anyone. If ever there was an act of God it is the combination of these three factors happening at one time. It is quite true that if the dikes on the Fraser river had been bigger more land could have been saved. But I am quite sure that if two or three years ago either the local diking commission, the municipalities affected, or the provincial government had told the farmers that they were going to build another six feet upon the present dikes the farmers would have protested most strongly. They would have said it was unwarranted, that the present diking taxes were too high anyhow, and they could have asked where the extra money was to come from. The old-timers, who have been there for fifty years, would have said the new height was unnecessary because they had never seen the water that high, which would have been true.

There has been the charge, too, that this unusual run-off was the result of heavy logging. I do not think that can be borne out. On the coast of British Columbia itself many of our smaller streams do have

[Mr. Sinclair.]

a very fast run-off in the spring because the mountain sides have been denuded of trees by heavy logging, but that is not true of the great inland tributaries of the Fraser where there has been little logging.

The hon. member for Fraser Valley (Mr. Cruickshank)—he is out in the Fraser valley—in his eight years in parliament has repeatedly drawn attention to two or three factors where the federal government has some responsibility as far as the Fraser river is concerned. In the first place, he has repeatedly called the attention of the house and especially of the Minister of Public Works, to the necessity of a large-scale program of dredging in the lower stretches of the Fraser river. The Fraser river is an exceedingly long stream. It is 800 miles long, with thousands of miles of tributaries, but it is only in the last 100 miles that it is navigable in the ordinary sense, where it pours through the Fraser river canyon at Hope and suddenly opens out into the Fraser valley, and further down into the delta of the Fraser river.

The river in the olden days was navigable as far as Yale, but in recent years what little dredging has been done by the federal government has been done only in the lower stretch between the sea and the city of New Westminster. The upper fifty miles, where the flooding is so bad, has been almost untouched by dredges.

The Fraser river is fed by glacial streams. The glaciers grind off a fine rock powder which forms glacial mud in the streams, and this is carried down the river. When the speed of the river slackens in the lower valley this silt or sand begins depositing on the river bottom. The dikes so far have been built by using earth off the farms, and the same situation has been developing there as has developed in the Mississippi valley.

The dikes on land are built higher and higher; the river keeps piling up silt on the river bottom, and finally we get a situation where the river is higher than the surrounding land.

The hon. member for Fraser Valley has pointed out on several occasions that the obvious way to build dikes is not to use land from farm lands but to send a dredge up the centre of the river channel, deepening the channel and using that material to build dikes on the sides. Certainly I would suggest that any program of rehabilitation of the lower stretch of the Fraser river must include such work.

I can tell the minister that if the Fraser river had the same amount of money spent on dredging it as has been spent on the