

of the banks of the river and the type of readings required, and so forth. The cost of a recording station varies considerably. If it is for a permanent lay-out, some long-term job, the cost may run up to \$20,000 or \$25,000, depending on what is required, and also depending on the conditions encountered.

I do not know whether these pictures are visible to you, but here are three pictures of the water stage recorder well and shelter on the Fraser river at Mission. The original cost was about \$9,000. It had to have about \$3,500 to \$4,000 worth of work done after the 1948 flood. This was literally hanging in the water, and this is it as it was rebuilt. That is a typical example. There is one pretty low down here on the Fraser river at Hope, which cost about \$7,500.

One of the things that dictates the cost, of course, is the money available. Another thing that dictates the type of gauge is the location and also the type of river or lake. For example, I think it is quite fair to say that on some of the lakes you could actually use manual gauges, provided observers were available, because the day-to-day change at some lakes is very small. On the other hand, such rivers as Capilano creek—

Mr. PAYNE: "River" please.

Mr. McLEOD: On Capilano creek it has changed 12 feet in 15 hours. No manual observer could hope to catch those changes, which are essential to an accurate record, and can be provided by the water stage recorder.

Mr. KORCHINSKI: You mentioned a lot are permanent. Are there very many constructed on a temporary basis?

Mr. McLEOD: In several of the provinces requests are received from the provincial authorities for records on some of the smaller streams—for irrigation purposes, for example. They may want only a limited period of record, perhaps to establish roughly the size of the stream. These are very small streams, down around two, five or ten cubic feet per second. They may want a record only during the low-water season, during the latter part of the summer. In those cases usually the installation is kept at as low a cost as possible, of course, and it is of a temporary nature, because we may know in advance the particular agency requesting the record only wants two or three summers' records. Therefore, we would not go into the expenditure involved in a more permanent station. On the other hand, the Red River at Emerson, or the Assiniboine river near Headingley, or the Fraser river at Mission, or the St. Lawrence river at Ville de la Salle—for these we have every indication we want the records for a longer period of time, and for as long as possibly 50 years or more. Therefore, it is only prudent we decide in those cases to establish more permanent types of structures.

Mr. PAYNE: To return to the Rocky mountain trench and Peace river, has the branch been called upon by the province of British Columbia, any agency or company, for an accelerated program, indicating their requirements and their need for more information?

Mr. McLEOD: As far as I am aware, not by the province of British Columbia. The consultant firm for the company has requested some additional information downstream on the Peace and Athabaska rivers in Alberta.

Mr. PAYNE: Have the developing engineers concerned indicated in any way that they are working with insufficient information at the present time?

Mr. McLEOD: No, not to my knowledge.

The CHAIRMAN: I have a question, Mr. McLeod. What jurisdiction has the federal government over a project such as proposed on the Peace? It is bound, for certain periods anyway, to have some effect downstream both in Alberta