

- “(4.) To ascertain the nature and extent of any drainage-works that may be required, and the best method of carrying out such works ;
- “(5.) (a.) To furnish estimates of the cost of such remedial measures as you may recommend should be taken for the effective control and improvement of the said river and its banks ;
- “(b.) To report what area or areas of land should be constituted a district in respect of which a rate may be levied to secure and pay the interest on and provide a fund for the repayment of any loan that may be raised to carry out any river-improvement works which you may recommend should be undertaken ;
- “(c.) To report your opinion as to what matters, if any, should be adjusted by legislation ; and
- “(d.) Generally, to report your opinion on all matters arising out of or touching the premises, including the question as to whether or not one or more competent authorities shall be appointed to control the whole or any portion of the said river, and what statutory powers should be possessed by such authority.”

The Governor-General's Commission also required us to report separately in respect of each river.

INVESTIGATIONS MADE.

Sittings, Evidence, and Inspections.—After examining the various rivers in Otago and South Canterbury upon which your Commissioners were directed to report, they arrived in Christchurch on the 13th July, 1919, and on the following day proceeded with their investigations of the Waimakariri River.

In company with Mr. J. E. McEnnis, Resident Engineer, Public Works Department, Christchurch, your Commissioners visited and inspected the following points in the district: Kaiapoi, Stewart's Gully, the Main Drain, the Eyre, and the Cust. Also, accompanied by the Chairman of the Kaiapoi Harbour Board and the Harbourmaster, your Commissioners made an inspection by launch of the Waimakariri River below Kaiapoi towards the mouth of the river.

On the 16th and 17th July the Commission held sittings at the Courthouse, Kaiapoi, and received evidence from nineteen witnesses. On the 18th July a sitting was held at the Departmental Buildings, Christchurch, when nine witnesses were examined.

RIVER NOMENCLATURE.

In the following report the different portions of the main river and its branches, &c., will be referred to as follows:—

The “old north branch” refers to the channel leaving the main river opposite the top end of what is now known as Coutt's Island. It picks up the drainage from the Eyre, the Cust, and the Cam before flowing through Kaiapoi Township and rejoining the main river below. From observations made on the ground your Commissioners have arrived at the definite opinion that the so-called “old north branch” is not, and possibly never has been, in reality a branch of the river under normal conditions of flow, and that it is only during floods that the channel forming the “old north branch” comes into active use as a flood-overflow channel, having numerous subsidiary smaller overflow-channels of its own running off in the direction of Kaiapoi. It is not until this so-called “old north branch” picks up the drainage from the Eyre and the numerous small springs discharging into it that it becomes a definite river-channel joining the main-river outlet near Kaiapoi.

The “new north branch” refers to the existing branch, originally formed by artificial means, but which is now the main branch of the river, flowing on the north side of Coutt's Island, and between this latter island and Kaiapoi Island, rejoining the south branch just above the Empire Bridge to form the main river again. This new north branch is frequently referred to in the evidence and elsewhere as “the cutting.”

The “south branch” refers to that portion of the river flowing on the south side of McLean's, Templar's, and Coutt's Islands.

The “main river” refers to the portions of the river above McLean's Island and below the junction of the new north and south branches just above Empire Bridge.