

REFERENCE NO. 4.

To ascertain the nature and extent of any drainage-works that may be required, and the best method of carrying out such works.

The river-protection works recommended in the foregoing paragraphs under reference No. 3 will not render the position as regards drainage any different from what it is at the present time. In other words, they will not render any more drainage-works necessary. Consequently, your Commissioners have not gone exhaustively into the question of drainage.

At least three of the subdivisions of the district—viz., Barnego, Otanomomo, and the lakes district—require improvement of drainage to a greater or less extent, and the same can apparently be provided without great difficulty.

At Barnego one main drain is required, approximately as indicated, running through the lowest ground, but the levels of the land are so even that this drain can be varied in position to suit the subdivisions or internal fences.

At Otanomomo the old channel of the Waitepeka should be opened up and a system of branch drains connected thereto. Here, again, the levels of the ground are such that the positions of the drains will be governed more by the farming operations and subdivisions than by any natural features.

The draining of the lakes district is a very complex problem. Possibly something on the lines of a contour channel on the seaward side of the lakes, picking up Lovell's Creek and carrying off the drainage from something over fifty square miles, would deal with the greater part of the water, while that on the other side of the contour channel, embracing most of what is lake now, could be dealt with by pumps of moderate dimensions. Owing to the position of the Taratu Coal Company's railway-line it would be advisable to place this line on top of the levee, which would constitute the lake side of the contour channel, or to divert the railway-line so as to connect with the New Zealand Coal and Oil Company's private line at or near Kaitangata.

The body carrying out the necessary drainage-works should be a Drainage Board elected from that portion of the river district affected, and these Drainage Board areas should coincide with the river ridings described later.

REFERENCE NO. 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 rivers and their banks.*

Your Commissioners estimate the cost of the remedial measures recommended by them under reference No. 3 at £165,000. This estimate is based on earthwork at 1s. 6d. per cubic yard.

(b.) *To report, in the case of each river, 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.*

The areas recommended to 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 the river-improvement works recommended by your Commissioners are as follows: The portion of Barnego Settlement coloured yellow, the whole of Balclutha Borough, the whole of Inch-Clutha, the whole of the lakes district, the whole of Otanomomo district, and the whole of Kaitangata Borough, all as shown on plan No. 5.

Each of the above districts should contribute in the following proportion to the capital expenditure required to build the whole of the works:—

	Per Cent.			
Barnego	..	..	..	3
Balclutha Borough	..	..	..	14
Inch-Clutha	..	..	..	20
Lakes district	..	..	..	10
Otanomomo district	..	..	..	9
Kaitangata Borough	..	..	..	4

These proportions are based on the economic value of the protection to each district.