

REFERENCE NO. 1.

To inquire into the cause or causes of the silting-up of the channel, the flooding of the adjacent lands by the said river, the erosion of its banks, and the damage to the surrounding country.

This is due to the enormous quantity of debris coming down from the mining claims at Maerewhenua and Livingstone, aggravated by the constriction due to the road-and-railway bridge, and the obstruction caused by the growth of gorse and other exotic vegetation in the river-bed.

REFERENCE NO. 2.

To ascertain the nature and extent of the damage done to the lands adjacent to the said river, and what area of land is affected by such floods or erosion, or both, and whether it is practicable at reasonable expense to prevent such flooding or erosion, or both, either wholly or partially.

The damage is of a manifold nature :

(a.) The floods cause damage to the Oamaru Borough water-race, which damage threatens, as time goes on, to become greater. When the river overflows its banks the town supply is cut off, and the local requirements have to be met by water stored in the Oamaru service reservoir, which is adequate only for a few days' supply under modern conditions. Even if all power-users were cut off, the reservoir would then only be adequate for about twenty days' supply.

(b.) The country roads are breached and overflowed, and traffic through the district is interrupted.

(c.) The railway-line is damaged by water overflowing it, and in the event of a very large flood the railway-bank would undoubtedly also be breached and traffic cut off. On one occasion in the past the entire railway-bridge was carried away.

(d.) The land abutting on the river below the road-and-railway bridge, and between its confluence with the Waitaki and a point some miles down-stream, is overflowed, and any crop growing thereon is damaged, if not destroyed. The fear of this occurring has been detrimental in preventing land being used for agriculture which might have been so used. The fear of floods, even when they do not occur, also depreciates the selling-value of the land. The particular kind of silt delivered by this river, coming as it does from mining operations at Livingstone and Maerewhenua, is detrimental to the land.

The area of land affected is 2,000 acres.

Your Commissioners consider it practicable to wholly prevent the flooding and erosion at reasonable expense.

REFERENCE NO. 3.

To ascertain the best method of providing for the control of the said river and its tributaries so as to safeguard the lands affected, and to provide for the effective control and improvement of the said river and its banks.

The works recommended by your Commissioners are shown on plans marked 1, 2, and 3, hereto attached, and consist generally of—

(a.) The lengthening of the combined road-and-railway bridge, and the removal of its present approaches (both road and railway) back to an alignment which will give a clear waterway of approximately 10 chains in width, as indicated on plan, agreeing thus with the river-bed as it now exists where not constricted by artificial works. In order to obtain this lengthening of the bridge your Commissioners recommend the relocation of the railway on the line indicated, which will give an improved running-line. In this connection your Commissioners must emphatically insist that the piers of the new bridge be set approximately parallel to the general run of the current. A great deal of the trouble with the present bridge is undoubtedly caused by the fact that its piers are square to the railway-line, and not parallel to the general flow of the stream.

(b.) From the ends of the lengthened bridge, levees must be carried down on each side of the river to its confluence with the Waitaki, and on the right bank