

Balclutha—Tuapeka Mouth Railway.

Hon. Minister.

With reference to the request of the Secretary of the Clutha Valley Railway League to be supplied with figures of the cost of a railway or road from Balclutha to Tuapeka Mouth. I have just received the report below from the District Engineer, giving his ideas of the standard and cost of the road to be adopted in lieu of a railway. The whole position may now, therefore, be summarized as requested in your minute of 25th February last.

The only figure that cannot be given is the amount of probable revenue that would be derived. The railway Department and the Agriculture Department have both been asked if they can supply this figure, but they cannot give us any indication.

The present traffic is estimated at 3,500 tons on the river, and this is not very likely to be much exceeded on a railway along the river-bank. The Agriculture Department state that twice as much traffic would be obtained if the route from Lovell's Flat via Stony Creek and Hillend were adopted, but the estimate for this line is more than double that for the river-bank route, being £330,000 more, which at 3½ per cent. interest charge is £12,375. It is evident this would neutralize any additional revenue that might be obtained. Giving a liberal estimate of 16s. per ton freight on 3,500 tons, and allowing up to £2,000 for passengers, which is in accordance with some of the best South Island branches, and is, therefore, very optimistic for this railway, a revenue of £5,000 might be obtained. These figures are very approximate, but will give some indication.

The position with regard to the railway can then be summed up as follows:—

Interest on cost of construction (river-bank), £248,000 at 3½ per cent.	£	9,300
Annual working-expenses (supplied by Railway Department)	12,823	
Total annual cost	£22,123	
Approximate revenue	£5,000	

You will see by this that the amount of freight would have to be more than four times as great as it is at present to make the line pay.

With regard to a road from Tuapeka Mouth to Balclutha instead of a railway, the District Engineer, allowing for a road with metal 15 ft. wide and 9 in. deep and formation widths to suit, estimates the cost at £21,000. This is for a water-bound macadam road, which, with the amount of traffic to be carried, is quite good enough.

The cost of a bridge over the Clutha River at the most suitable place (which the District Engineer states to be at Clydevale) is estimated at £35,000. He considers that the time has not yet arrived for the bridging of the Clutha in this locality, nor does he think the local bodies could contribute their share to the cost of such a bridge.

28th April, 1924.

F. W. FURKERT.

II. WAIHAO DOWNS RAILWAY EXTENSION.

Waihao Downs Railway Extension.

Your 1914/2966, No. 19575, of 30/8/1923.

1st November, 1923.

General Manager.

THIS extension, according to the Public Works plans, would be 4 miles 60 chains in length, from Waihao Downs Station to a locality known as "Kelchar's Corner," with an intermediate station at "Serpentine."

For fully a mile the earthworks are heavy, cuttings running to 60 ft. in depth and banks to 50 ft. in height; otherwise the works are of a light character. There would be numerous concrete, &c., culverts, and apparently only one small bridge is contemplated. The minimum radius of curves proposed is 7½ chains. The accompanying diagram shows the gradients proposed. The ruling gradient would be nominally 1 in 50, but, allowing for curve resistance, the actual ruling gradient would be about 1 in 42, practically the same as between Waihao Forks and Waihao Downs. All the gradients rise towards the terminus.

Most of the earthworks were completed some years ago, and from the Public Works Statements (Table 3) it appears about £30,000 have been expended on the extension.

The Public Works Department estimates the cost to complete the extension at £31,000. The District Railway Engineer estimates the cost at considerably more than this, but for the purpose of this report we consider it will be sufficient to assume that the cost will be, say, £35,000, including the removal of the engine-shed, &c., now at Waihao Downs to the terminus.

Financial Position with respect to Operating-costs.—In considering the financial position we have assumed—

- The total cost of construction and completion as £65,000, with interest thereon at 4 per cent.
- The train-mileage to be one train each way per day, as at present, with an allowance for special trains which are now run from Waihao Downs to Arno, or McLeans, in consequence of the steep grade from Waihao Forks to the latter station.
- Operating-costs to be for maintenance of track, £200 per mile. (NOTE: The average cost for New Zealand in 1923 was £344 per mile, and for the Waimate Branch £167 per mile. For a series of years, and considering the heavy earthworks, the cost would probably be much higher than £200 a year.)
- Operating-costs for traffic, locomotive, and car and wagon at the 1923 costs per train mile = 10s.
- Revenue likely to accrue on account of extension as stated by the Commercial Agent and Assistant Traffic Manager, Christchurch, in their report—namely, £1,000 a year.

On the basis of these assumptions we consider the financial position would be somewhat as follows:—

Expenditure—	£	£
Interest on cost £65,000 at 4 per cent.	2,600	
Maintenance of line, 5 miles at £200	1,000	
Train-mileage costs—		
Train-miles, 10 miles × 313	3,130	
Specials	170	
	3,300 at 10s. = 1,650	5,250
Revenue—		
Revenue as estimated	1,000	
Estimated loss on working extension	£4,250	

We are of opinion that the extension of the railway would not materially affect the motor traffic on the roads in competition with the railway.

H. B., Chief Traffic Manager.
F. W. M., Chief Engineer.

Waihao Downs Railway Extension.

The Resident Engineer, Public Works, Christchurch.

Wellington, 16th June, 1924.

I SHALL be glad if you would again go into the question of the extension of the line from Waihao Downs to Kelcher's Corner, and advise what is absolutely the minimum for which the line could be extended to Kelcher's Corner.