

Taking the interest on £38,000 (for completion only, irrespective of the money already spent) at 4 per cent. £1,520 per annum is the result. The cost of running one train per day on the extension at 13s. per train-mile (which figure is an estimate of the Railway Department's) is approximately £2,000 per annum.

Indications are certainly against there being any possible chance of the extension being a payable proposition.

F. LANGBEIN, Resident Engineer.

WAIMATE BRANCH RAILWAY : SUMMARY ESTIMATE TO COMPLETE, 23RD JULY, 1924.

	£
Fencing, gates and cattle-stops	1,064
Grading, including sidings and station-yards and deviation at 2 m. 5 ch. to 2 m. 30 ch.	6,810
Culverts	1,000
Bridges	4,708
Ballast and platelaying in main line and sidings	4,722
Carriage of rails, sleepers, from Timaru	650
Station-buildings	2,670
Rails, sleepers, fastenings and points and crossings (value delivered in Timaru)	14,780
Engineering office and contingencies	1,596
	<u>£38,000</u>

III. WAIPU BRANCH RAILWAY.

Engineer-in-Chief.

WITH reference to the question of possible traffic and expenditure in the Waipu Branch Railway, I have to report as follows :—

The population served by the railway is approximately 2,500.

The occupied land in the Waipu district that would be served by the railway is about 86,000 acres. Of this 43,000 acres has been grassed and 7,000 acres is in naturally grassed country. The remainder is poor gum-land and some 12,000 acres of standing forest. So far as traffic for the railway is concerned we need only consider the production from the 50,000 acres of grass land. I doubt if much timber will be taken out by the railway.

The stock at present carried on the 50,000 acres of improved land is 13,000 cattle, of which 3,000 are dairy cows, and 18,000 sheep, of which about 8,000 are breeding-ewes. The production in butterfat of the whole area can be put down at 300 tons, and 8,000 sheep or lambs might be carried each year on the railway, as well as 300 bales of wool. About 3,000 cattle might also be carried each year, but it is doubtful if they would be all carried on the railway. However, I will allow for this quantity.

The present outward traffic freights, therefore, on the railway can be put down as follows :—

	£
300 tons butter at 11s.	165
300 bales wool at 1s. 9d.	26
8,000 sheep—160 trucks at 21s.	168
3,000 cattle—400 trucks at 21s.	420
	<u>£779</u>

This is approximately 900 tons per annum, and the total exports would not exceed at present, I think, 1,000 tons per annum, the figure given me by the District Engineer.

The imports are quoted at 2,000 tons per annum. This is, I think, high, because, in a comparison with other stations on the North Auckland line, I find the imports are generally in a ratio of 1·6 to 1, with the exports making the total in this case of 1,600 tons. However, giving it the benefit of the doubt, I will take the imports at 2,000 tons, and the average freight would be about 12s. per ton, giving a revenue of £1,200. The total revenue would then be, taking 100 extra tons of exports at 12s. per ton—Outward, £860; inward, £1,200; passengers, £1,050: total, £3,110. I have allowed for about sixty passengers per week, but I doubt if this would be reached, as the car services are much more suitable for passenger traffic.

The working-expenses are as follows: Maintenance (16 miles at £200), £3,200; train-mileage (5,200 at 4s.), £1,040; traffic expenses, £1,000: total, £5,240. The train-mileage is for costs of engine, train and crew of engine and guard. The mileage allows for two trains per week over the 26 miles between Whangarei and Waipu. Traffic expenses include salary of Stationmaster and porter's and clerical expenses.

We must now add to our annual expenses 3½ per cent. of £170,000, the probable cost of the railway, making the total annual expenses—Running expenses, £5,240; interest charges, £6,375: total, £11,615.

The present-day-traffic returns would therefore amount to about 27 per cent. of the annual expenditure. There is a possibility that the local people may ask for and obtain three trains per week, in which case the annual expenses would be increased by another £500; but I have left it at two trains per week.

You asked me to estimate the probable amount of traffic on the assumption that the whole of the land was being worked to its full capacity. I will assume that dairying is most likely to be developed. With the exception of inward manures, dairying does not greatly increase the railway freights. If, however, the 50,000 acres were carrying 12,000 cows instead of the present 3,500, the output in butter would be about 1,100 tons per annum. I am assuming that the butter-factory would be at Waipu, and all cream would be taken to it by motor-lorry. Most of the land lies near Waipu, and very little, if any, cream would be taken by train. It is to be noticed that I have taken one cow to 4 acres. This means that the land would need to be worth about £25 per acre on an average all over. It is about £5 per acre at present. If the 50,000 acres are all in dairying the traffic in sheep or cattle will not be increased to any great extent, particularly as the amounts I have already allowed for this traffic are probably too high. The inward revenue I will increase to a value in tons 60 per cent. greater than the outward, a ratio which other station returns in the North show to be a fair one. Passenger traffic would not be increased, because I think by the time the land is brought to produce the estimated output the roads will be in such good order as to practically take nearly all passenger traffic off the railway. It must be remembered that Maungaturoto and Mareretu Stations are only about eleven miles from Waipu.

The prospective revenue will then be—

	£
Outward—1,100 tons butter at 11s.	605
Sheep, wool, and cattle, &c.	695
Inward—3,000 tons at 12s.	1,800
Passengers	1,050
	<u>£4,150</u>

Expenditure would be about £500 more = £12,115. The percentage of revenue to expenditure, about 34 per cent.

11th April, 1924.

J. WOOD, Inspecting Engineer.