

It is not, therefore, probable that the railway (if constructed) will earn sufficient revenue to pay interest and working-expenses.

We are aware that in 1912 the late Engineer-in-Chief of the Public Works Department (Mr. R. W. Holmes) estimated the cost of construction of a railway from Rotorua to Taupo on approximately the same route as we now propose at £7,000 per mile; but since 1912 the cost of such works has greatly increased. The estimate of £700,000 is, we are satisfied, a reasonable one under existing conditions.

ORDER OF REFERENCE NO. 3.—EXTENT OF COUNTRY WHICH WOULD BE SERVED.

We have estimated that the extent of the country which would be served by such a railway, if constructed, is approximately one and a quarter million (1,250,000) acres. This includes the land lying within ten miles round the shores of Lake Taupo, and the land served by the Napier-Taupo Road as far as the upper Rangitaiki country, but not the area in the watershed of the Rangitaiki River in the Galatea district, which area will find an outlet towards the East Coast Railway, although the distance from Galatea to Waiotapu, where a railway to Rotorua would be reached, is less than from Galatea to Awakori on the East Coast Railway. We think that when the road now under construction and nearing completion connects Galatea with the ports of Whakatane and Tauranga the exportable produce from that district will be dealt with at those ports instead of being sent by railway to Auckland.

With regard to the suitability of such country for settlement, there is no doubt that some pumice land, when cultivated and treated with suitable manures, will produce splendid crops of turnips and clovers, and is capable of development into pasture. There are, however, various grades of pumice land. Evidence was given that it takes seven or eight years to bring the pumice country between Rotorua and Taupo into full productive condition, though some return can be obtained from it during the process. The cost of this development is about £7 per acre, so that a settler requires considerable capital to establish himself. Although the land is easily worked and the working is not affected by weather conditions, the area which can be cultivated is limited by the amount the settler can afford to spend each year for labour and manure. With cheaper means of communication the rate of development could be increased, but with the present-day information it is doubtful whether any but the better-grade land would provide a sufficient return for the outlay. Isolated settlers deprived of the advantages of participation, in common with others, in services for supplies and marketing would not be successful.

All the country will grow trees, but the return from plantations is too remote to induce settlers to do more than plant what is required for shelter for stock. The Forest Service has on the Kaingaroa Plains a sufficient area for its operations for some years to come.

In our opinion further experiment is necessary on the lower-grade pumice land to determine its capability for production. We suggest that an experimental station be established on the main Rotorua-Taupo Road, on an area typical of the surrounding pumice country, where the operations can be readily inspected by possible settlers.

There is lying between the Rangitaiki and Waikato Rivers the plateau of the Kaingaroa Plains, in area from 200,000 to 300,000 acres, on which there is little or no visible water-supply for settlement purposes. There are springs issuing at various places at the base of the plateau. We beg to suggest the advisability of undertaking boring operations to determine whether a sufficient supply of water can be obtained on the plateau to make settlement in small areas possible.

ORDER OF REFERENCE NO. 4.—THE ROUTE (GENERALLY) WHICH SHOULD BE ADOPTED.

The route which, in the opinion of the Commission, should be adopted for the construction of the railway (if such construction be decided upon) is from Rotorua by way of Hemo Gorge and Waiotapu, thence keeping to the right bank of the Waikato River to the Township of Taupo. The line has not been surveyed in detail, but from reconnaissance it is considered that a line with ruling grades of 1 in 60 can be constructed for £700,000, the distance being approximately 54½ miles. This amount includes the cost of stations, but does not include the cost of rolling-stock, which is estimated at £50,000.