

Hills, thence along the bank of the river to the Waiau Bridge. The total distance between the two river-bridges will be about twenty-three and a half miles, and the length of the long straight nearly twenty miles. It is scarcely necessary to add that the cost of making a railway along the Amuri Plain will be at the minimum; there will be no earthworks beyond surface-forming, and, with the exception of the Pahau Stream, there is no watercourse worth noticing in the whole distance.

The traffic would be best intercepted and accommodated by making the first stopping-place in the extension of the railway at the main-road-crossing opposite Culverden Mound, eight and a half miles beyond the Hurunui. This point is a mile and a half by road from the Pahau Stream, and two and a half miles from the "Red Post," the junction of the Waiau and Hanmer Plain Roads.

The survey of the section on the coast-line between the Waiau and Kahautera Rivers is being made for the department by Messrs. Dobson and Son, of Christchurch. It is not, however, sufficiently advanced to enable us to come to a definite conclusion with reference to the character and cost of the works.

In considering the extension of the main trunk line, it is necessary to revert to my report of the 21st June, 1879, on "The Proposed Railways in the Northern Districts of the Middle Island" (Parliamentary paper E.-1, page 60), and give an abstract of the leading points and conclusions bearing on the question:—

1. Geographically, and, so far as the Middle Island alone is concerned, the best route for a through railway is what may be called the Inland Line, by the Amuri and Hanmer Plains, Jollie's Pass, and Upper Clarence and Wairau Valleys to Blenheim, with an alternative from Tophouse to Nelson. But the advantages of position are more than counterbalanced by the engineering difficulties met with, the great altitude to be overcome, and the extra length involved,—that is, on the assumption that the line is to be viewed as the means of communication between the two ends of the colony.

2. The Coast Line by Waipara, the Omihi Valley, Cheviot, Kaikoura, Flaxbourne, and Dashwood Pass to Blenheim, is preferable to any other route, inasmuch as it is the shortest from the populous districts of the South to Wellington and other parts of the North Island, and that it only rises to an extreme altitude of 500 feet, against about 3,300 on the Inland Line. These advantages considerably outweigh those of all other routes, as well as its own disadvantages—viz., great difficulties of construction.

3. The Amuri Plain is well worth opening up by a railway, independently of the question as to whether it will form part of the through line, but a connection can be made between it and the coast-line from the Waiau Township to Parnassus.

The above are the salient points determined three years ago, and the additional information since obtained does not materially affect them. The discovery of an easier line between the Waiau and Upper Clarence is so much more in favour of the inland route; still, it in no way alters the ultimate conclusions.

The question has lately arisen as to whether it would not, in the first instance, be advisable to extend the present railway to Waiau, and make the Parnassus connection above mentioned, together with that portion of the coast-line north of Parnassus; then to let the whole line thus described be worked as the through route till the requirements of the traffic demand the shorter one by Waipara and Cheviot. Beyond obviating the inconvenience of working the Amuri line as a branch, there is little to be gained by such a proposal. The country between Waiau and Parnassus is very rough. The line would either require to follow the river, entailing exceedingly heavy works, or go over a range 900 feet high, the difficulties of the coast route would not be avoided, less traffic-producing country would be accommodated, and, so far as can be judged without detailed surveys, nothing would be saved in cost.

The following statement shows approximately the total length from Christchurch to Picton, and the length to make of the two lines now under discussion; also the same information with reference to the inland line previously described:—

Line.	Total length.	Length to make.
	Miles.	Miles.
Coast line—By Waipara, Cheviot, Parnassus, the coast, and Blenheim ...	215	151
Amuri—Coast line—By Waipara, Amuri Plain, Parnassus, the coast, and Blenheim ...	230	150
Inland line—By Amuri, Upper Clarence, Tophouse, and Blenheim ...	245	170

In my report of 1879 I showed that the direct sea route from Lyttelton to Wellington is no longer than the shortest railway route between Christchurch and Picton, and that, when the passage from Picton to Wellington is allowed for, the balance of time in favour of the railway only amounts to an hour and a half. The respective times were calculated at fourteen and a half and sixteen hours. By making the works somewhat heavier than originally contemplated, and running express, the time in the former case could be reduced to twelve hours; but, on the other hand, the fast steamers now coming to the colony can make the passage from Lyttelton to Wellington in fourteen hours in moderate weather. It is therefore of the greatest importance that the railway should be made as short and level as possible. In consequence of the height to be overcome, as well as the additional distance to be travelled, the time by the Parnassus—Amuri diversion could not be less than thirteen hours, and by the Inland line not less than fourteen hours.

From the foregoing remarks it will be seen that the selection of the route to be adopted in extending the main trunk railway is narrowed down to the question as to whether the line is intended to serve the Middle Island alone, or to form a link in the connection between the two ends of the colony. My previous report shows that the resources of the country traversed, and the importance of