

REPORT ON FLYING SURVEY OF PROPOSED RAILWAY—SHORTLAND TO WAIKATO.

(Referred to in Mr. Simpson's letter on page 14).

This survey has, from the beginning, been prosecuted under unusual difficulties, arising from the sullen and defiant conduct of the Natives, requiring great caution on our part to enable us to proceed with the work. The greatest opposition was from the Ohinemuri Natives, who at last drove us off by force of arms. Many of the Natives between the Thames and Waikato seemed to favour the undertaking; but, the murder of Sullivan occurring whilst I was in the vicinity of Cambridge, the Natives became excited, and advised me to desist. I spent a week returning slowly over the ground, when an accident to the instrument prevented the survey of this portion being as complete as I could have wished. The survey commences at the terminus of the Grahamstown and Tararu line, traversing the beach to the south end of Shortland, when it crosses property of little present value, to the Kauwaeranga Stream, passing close to Shortland Wharf. The works required are a retaining-wall along the beach, with filling, as shown on section marked A, which is similar to that of the G and T line in front of Grahamstown, and is an average section. Provision will be required for the passage of the Karaka Creek, and four street drains. The Grey Street crossing will be level, and a filling of two and a half feet required to the Hape Creek, with retaining-wall. The filling and retaining-wall will be continued to the Kauwaeranga Creek. As the population is increasing above this point, and the stream navigable for small craft, it would require a swing.

From this point the line runs over a succession of fern plains and swamps, passing through three small bushes, to the Thames Crossing, between Ria Te Papa and Te Aroha Mountains, a distance of twenty nine and a half miles. The whole of this distance is practically level, and the swamps are easily drained where the line crosses them. The longest bridge on this length is the Ohinemuri, and the aggregate length of all the bridges on this portion is 986 feet. The Thames will require a bridge of 184 feet; and, as it is some miles below where navigation by steamers can be carried, and the banks too low to allow crafts to pass under, it will require a swing.

The country between the Thames Crossing and Hamilton is very favourable, crossing the fern flats and swamps forming the lower portion of the great plain of this province to the gorge at Te Awa, Waikato. This gorge is formed by the passage of the Waitukaruru, which, rising on the Waikato side of the range, runs several miles parallel to that river, and then, turning east, falls into the Piako. From Te Awa, Waikato, the line runs along the higher or south side of the great swamp of 62,000 acres, and, leaving it, enters on the fern flat which extends into Hamilton, passing down Clyde Street into the reserve at the ferry landing. With the exception of about 6,000 yards of cuttings near Te Awa, Waikato, the whole of the line is level, the swamps requiring a ditch on each side, the material thrown into the formation. There are no heavy bridges on this portion, the aggregate length required being 652 feet. This portion has not been chained, and I estimate the length at under thirty miles.

The Kauwaeranga Creek and sea-beach would furnish an unlimited amount of excellent ballast, and most of the creeks between Shortland and the Thames Crossing would furnish an adequate supply. The pumice formation from the Thames to Waikato would furnish its own ballast.

A large quantity of excellent timber for sleepers would be furnished by the ranges to the east of the line between Shortland and the Thames Crossing. On the portion between the Thames and Waikato, near the Waitoe, the line passes large totara bushes, a large portion of which is on Government land. An unlimited supply of first-class kauri timber of all dimensions can be supplied by the powerful saw-mills in operation on the Thames, and also from the various mills on the coast near us. All material used on the line could be conveyed by water either from this place or direct from Auckland to any point up to the Thames Crossing. Rails, &c., for the Waikato portion would have to be delivered at this crossing, the cost of carriage being much less than by the route through Mercer and the Waikato. Material could be delivered at the crossing at 17s. per ton from Auckland, and at 10s. from Grahamstown.

Vessels of any draught could discharge here into steamers suitable to convey it direct to the crossing. The advantages of cheap and direct communication between the large consumers of this district and the producers of the Waikato cannot be too highly estimated. At present all the agricultural produce consumed on the gold field is procured at uncertain intervals, chiefly from the adjacent provinces or colonies.

With direct communication, the bulk of these supplies could be procured from the Waikato, —they receiving, in return, besides gold, many articles suited for their use: amongst others, an unlimited supply of first-class timber, of which their district is nearly destitute.

The supplies required by this mining population (already the second in the province and third in the colony) will in all probability be largely increased, as sufficient evidence was offered of the auriferous character of a large portion of the district through which I explored, as well as of the existence of extensive coal deposits, so essential to the welfare of a mining community.

The establishment of this route would materially increase the security of the Waikato Settlements, by giving command of the country in their rear. This country, extending as far as the eye can reach, and capable of supporting a nation, could be traversed by cavalry, and supplies could reach the foot of the plain from this place in five hours by steamer, or by rail in one. The steam service from Shortland reaches to within two hours' run of this point daily. The population of this district (nearly equal in numbers to that of two neighbouring provinces) will not receive any benefit from the lines in progress in this province; whilst, from the superior advantages offered by this route, its adoption would confer an inestimable benefit on this large community, and be without doubt the cheapest route between Auckland and the Waikato Settlements. This would be the case with the Waikato Settlements in their present extent; and any extension of settlement on the fertile lands between the Waikato and Thames Rivers would increase the advantage in its favour.

Almost immediately after leaving the Thames Crossing, the line reaches a fertile district extending to Te Awa, Waikato, nearly the whole of which is in the hands of the Government or Europeans, and awaiting settlement. This district, before the late war, was noted for its production of wheat, and would, if cultivated, produce sufficient for the whole province.