

WAITEMATA-KAIPARA (HELENSVILLE) CANAL.

The Auckland Harbour Board, in the years 1914 and 1915, had surveys and sections made under the supervision of Mr. W. H. Hamer, M.Inst.C.E., and the plans and sections, having come into the possession of the Government, were available to the Commission. They are recorded as M.D. 4452 and 4453 respectively, and give particulars of the country that would be met with in carrying a canal from deep water at Mount Rex, on the Kaipara River, past Helensville and up the valley of that river, but providing for the straightening thereof by the replacement by easy curves of its present winding bed and of that of its upper portion known as the Kumeu River. The survey gave four alternative routes across the saddle lying between the Kaipara and deep water in the Waitemata. The shortest route crosses a ridge 274 ft. above the datum (Auckland dock-sill), and leads into the Waitemata near Riverhead. The route apparently favoured by Mr. Hamer as the most satisfactory leaves the bed of the Kumeu River near the Government railway-station of that name, and, crossing the saddle at a height of 135 ft. above datum, reaches the Waitemata at a creek half-way between Riverhead and Brigham's Creek. Two other routes were surveyed and particulars shown on the plans and sections, crossing the saddle at heights respectively of 169 ft. and 173 ft. above the datum.

It has been suggested that the canal might be either (a) large enough to take steamers of not less than the class now trading between Helensville and Dargaville and the Wairoa, or (b) of a size to take barges that could be safely and comfortably navigated across the Kaipara Harbour, where exposed at the entrance, or, in the Waitemata, to the Auckland wharves. In the first case the total length of the canal from deep water at Mount Rex, in the Kaipara, to deep water near Greenhithe, in the Waitemata, would be more than 21 miles, though in the second case it would be shorter, depending upon the draught of vessel provided for and the extent to which the bends in the beds of the Kaipara and Kumeu Rivers were straightened.

We have considered the volume of trade that would be likely to be carried by a canal of either class, and, although the data that we were able to obtain as a guide in that respect was somewhat meagre, we easily concluded that there would not be at the present time any justification for a canal, and have therefore not worked out any scheme in detail. Any canal upon this route would not only be costly to construct, but, owing to the upper reaches not having any natural water-supply, the cost of working would be great, as the volume of water required to supply the lockages and waste would have to be pumped from a lower level.

Mr. Hamer in his evidence stated that he had worked out, in 1915, a scheme for a barge-canal on this route having a depth of water of 10 ft., and had made an approximate estimate that (at pre-war prices) the cost of such a canal would have been something in the neighbourhood of £1,600,000. We are of opinion that a much smaller sum would be much better spent in improving the facilities for transshipment at Helensville and upon the railway connection between that port and Auckland.

There is, however, one portion of the scheme that, in our opinion, ought to be carried out if it can be financed, and that is the straightening of the Kaipara below Helensville. In 1907 the District Engineer of the Public Works Department in Auckland reported that he estimated that the cost of making two cuts to give 8 ft. depth at low water for a channel 60 ft. wide at the bottom with 3 to 1 slopes would then have been, exclusive of the cost of the land required, £20,328. This proposal is shown on plan P.W.D. 22582. By making two cuts, each of about 21 chains in length, there would be saved about 110 chains of navigation round two awkward and shallow bends of the river. The straightening of the river below Helensville would enable the railway-wharves to be navigated up to and used in a more satisfactory manner than is possible at present, and would largely reduce the cause for the present complaints of those interested in the Dargaville trade. The lands to be taken are only some 15 acres in extent, and the cost of acquisition should not be great. If the channel could now be cut for a cost not exceeding £40,000, and the districts interested are willing to be rated therefor, we are of opinion that the work should be carried out, and the sinking fund and interest provided by a rate to be struck, in a manner to be determined, over the districts surrounding the Kaipara Harbour.