

Estimate.

I estimate the cost of the foregoing works as follows :—

West breakwater, completed to the full length of 4,400 feet, including staging and the provision of such railway approaches, with a temporary bridge across the river, as will be required to convey the stone from Fairdown to the works	£ 266,400
East breakwater, with railway approaches, &c., completed to the full length of 6,000 feet	172,376
Total for the two breakwaters	438,776
Dredging the new channel to the extent previously described, including up-keep and working expenses of all plant, but not the first cost of the dredger	50,000
Total	£488,776

The above sums include a fair allowance for contingencies, and for the provision of plant. They will no doubt appear large for the execution of the works, but I feel confident they cannot be carried out in a permanent and satisfactory manner, having regard to the unfavorable conditions of the site with respect to the distance of deep water from the shore; nor can a thoroughly effective deep-water entrance to the Buller be formed for a less total outlay than that above-named, although, as previously explained, a *pro ratâ* benefit may be expected to accrue from the partial execution of the two external breakwaters. I have not considered it desirable to estimate the cost of the internal training banks, seeing that these may well be left for future consideration, and may be undertaken hereafter, when the trade of the port shall have grown to such an extent as to warrant the further outlay which would be required for their execution. In framing the design previously described, I have kept in view the necessity for providing plain substantial structures adapted to the circumstances of the case, and such as, in my view, will be required at no distant date for meeting what will prove the growing requirements of this, which may be expected to become, the coal port of New Zealand.

The two external breakwaters, for similar lengths to those described, might be constructed in timber for the sum of £162,200 for the west breakwater, and £183,900 for the east breakwater; or together, £346,100, as compared with £438,776, if formed of stone and concrete. I would not, however, recommend this mode of construction, seeing that timber works will inevitably prove a constant source of outlay in up-keep and maintenance; and it is in every sense desirable that the two external works, to whatever extent they may be executed, should, in the first instance, be carried out in a permanent manner.

Future Dock.

Having regard to the extensive beds of high-class coal in the surrounding district, and the consequent probable large development in the trade of Westport at some future, and possibly not very remote, date, I have thought it desirable to indicate, as I have done by thick dotted red lines on both of the accompanying drawings, the general outlines for a project for a floating basin, to be formed in the lagoon on the western side of the entrance.

It will be seen on reference to the drawings that this lagoon would admit the formation of a very extensive basin, in which vessels could lie to ship coals, the railway being carried across the river for this purpose, say at a point between Fonblanque Street and Mill Street, as shown. I regard this scheme as worthy of consideration when the shipping facilities of the port shall require extension, seeing that vessels lying in the river must occasionally be exposed to great risks from the exceptional violence of occasional floods, one of which I witnessed at the time of my visit; and I may remark that, as the number of vessels frequenting the port may increase, the greater will be the risk of damage occurring to them, by reason of the greater obstruction they would offer to the passing waters; and, the greater the number of vessels lying in the river, the greater in all probability would be the amount of damage that would be caused. Moreover, vessels lying in such a basin would be quite free from the great risk of injury to which they would be liable from the trees (many of which are very large) brought down with dangerous velocity at the time of heavy floods.

It should be noted that the physical conditions of this site are such that the basin might be commenced on a comparatively small scale, and extended from time to time according to the requirements of the trade.

New Relief Channel.

I gather from the longitudinal and transverse sections taken in January of the present year, and forwarded to me with the other documents, that the making of a new "relief" channel between the upper end of Sluice-box Falls and the lower end of Snag Falls, near Oamaru Creek, which I stated when in New Zealand would be preferable to repairing the old bank, has thus far been attended with satisfactory results. It is not improbable that the bed of the river between the lower end of this relief channel and a point almost a furlong south of gauge No. 13, may eventually require some artificial aid, to reduce the bottom to a closer approximation to an uniform gradient than can be accomplished by natural agency alone. I mention this as a matter