

1880.

NEW ZEALAND.

THE HARBOURS OF NEW ZEALAND

(REPORTS ON, BY SIR JOHN COODE, C.E., TOGETHER WITH COPIES OF DRAWINGS).

Return to an Order of the Legislative Council, dated 10th August, 1880."That there be laid upon the table copies of all reports that have been received from Sir John Coode upon the harbours of New Zealand."—(*Hon. Mr. Waterhouse.*)

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THE BLUFF (CAMPBELLTOWN).

SIR,—

5, Westminster Chambers, London, S.W., August, 1879.

I have the honor to submit my report on the Bluff Harbour, accompanied by the following illustrative drawings:—

No. 1 is a general chart of the south-eastern portion of the Awarua or Bluff Estuary, showing the harbour and Campbelltown. Nos. 2 and 3 are detailed plans mainly compiled from the special survey prepared in accordance with instructions framed by me when in the colony: the former shows the works hereinafter recommended for immediate execution; the latter a complete scheme of harbour improvements, of which any works to be undertaken from time to time should form instalments or portions. No. 4 gives details of the mode of construction proposed to be adopted. No. 5 is a chart illustrating the system of leading lights, &c., to enable vessels to enter or leave the port after nightfall.

Geographical Position and Physical Features.

The geographical position of Bluff Harbour (when taken in connection with the area and depth of water in the estuary) is certainly such as to justify the prediction that it is destined to become, at any rate, one of the chief southern harbours of New Zealand. As regards the South Island it is the first port of arrival from—and the last port of departure to—Tasmania, Victoria, South Australia, and Europe; it is no farther distant from Sydney than Manukau, which may be regarded as the western water-gate of Auckland, or than New Plymouth, at the south-western extremity of the North Island; it is even nearer to Sydney than Wellington. Both as regards general commerce, and as a mail-packet station for the South Island, Bluff Harbour therefore possesses unusual advantages.

The area of the Awarua Estuary, in which this harbour is situated, is $2\frac{1}{4}$ square miles at high water; the quantity of tidal water passing in and out through the entrance at ordinary spring tides is no less than 104,250,000 tons. The entrance is unincumbered by any bar, and is so situated that its aspect is upon the "weather" shore. There are two channels leading into and out from the harbour; the principal of these runs nearly north and south, the other east and west.

At the time of my inspection last year there was no steam-tug in connection with the harbour, consequently sailing vessels were then dependent upon the tidal streams for their times of entry and departure; but, inasmuch as these currents run fairly true through the respective channels, no difficulty has been experienced during the hours of daylight. I understand, however, that arrangements are now in progress for obtaining a steam-tug for the service of the port. As regards the navigation by night, I shall hereinafter describe in detail the system of lights which I have to recommend for adoption.

I should here mention that on the western side of the entrance, north and south of Starling Point, and under the shelter of the promontory of "the Bluff," there is a large area of sheltered water having depths varying from 3 to 6 fathoms at low water, and good holding ground, which is admirably adapted for anchorage, and is found to be most useful in westerly and south-westerly winds: this is a very valuable adjunct to the harbour. I may further mention that, as pointed out by Captain Thomson, the Harbourmaster, vessels bound for this port may find perfect shelter, with smooth water and safe anchorage, between Saddle Point and Port William on the north-east coast of Stewart Island, the best anchorage being "abreast of the Murray River, from half a mile to a mile off the shore, in from 5 to 12 fathoms water."