

PART 8.—BRIEF HISTORY OF PORT TO ITS PRESENT STATE.

It appears that the first survey of the Ahuriri district was made in the year 1851. The tide at that date flowed in and out of the Ahuriri Lagoon through a natural channel, there being no moles or protective work. In these circumstances the position of the channel from time to time was variable, and its average depth and the position of its deepest channel were subject to constant fluctuations.

In 1862 Mr. Charles Weber was appointed Provisional Engineer for the district, and he was still in that position when, in 1876, the Napier Harbour Act, 1876, was passed, and he became the Resident Engineer to the newly formed Board. He held that position until March, 1879, and on severing his connection with the Board he made a report recording the progress to date in the construction of the port.

In 1873 Mr. McGregor had recommended a breakwater harbour to be built between the Bluff and the Eastern Spit. In 1875 Mr. Carruthers, the Colonial Engineer, had built a test timber groyne to test the question of travelling shingle as affecting the practicability of a breakwater. The result was to cause Mr. Carruthers to report against the construction of the breakwater and to recommend the development of the Inner Port. This work was persevered with when the Harbour Board came into existence in 1876, and between that year and 1878 the east and west piers were built to fix and protect the entrance channel, at a cost of £60,000. Some wharves had been built and some dredging done. Mr. Weber's last official act seems to have been the preparation of a memorandum containing data for the guidance of Sir John Coode, who had been asked to report on and recommend the harbour-works for Napier.

Sir John Coode, M.Inst.C.E., reported in March, 1880, and he joined with Mr. Weber in condemning McGregor's proposed breakwater harbour on the ground that it would inevitably become blocked with shingle and prove a failure. He recommended the extension of the eastern and western piers at the entrance by 400 ft. each, and a deepening of the entrance channel to 10 ft. below low water, spring tides, giving an estimate of the cost of that work, together with a supplementary estimate of the cost of a further instalment of work consisting of the extension by a further 400 ft. of each of the piers and the deepening of the channel to 12 ft.

After receiving Sir John Coode's report the Harbour Board called for competitive designs for the best method of providing a harbour for Napier. A Board of engineers in England was appointed to judge the designs and schemes, their fee being fixed at £600. They awarded the prize of £500 to Mr. W. W. Culcheth, of Victoria, Australia. In his report Mr. Culcheth, in outlining the proposed works for the Inner Harbour, named the third essential as "the maintenance of a depth of 20 ft. at low water in the channel between the moles and in the approaches thereto."

The minutes of the various meetings of the Board in 1882 disclose the extraordinary fact that in the opinion of the Board this design, which had cost £500 as prize-money and £600 as the fee to the English judges, did not meet the requirements of the Harbour Board district, as it contemplated an expected depth of 20 ft. only, and the Board regretted that in giving particulars "the class of vessels to be provided for was not more distinctly stated." No use, therefore, has ever been made of Mr. Culcheth's reports and plans.

Mr. John Goodall, M.Inst.C.E., of Timaru, was next approached, and he was asked to prepare plans and specifications with estimate of cost of a harbour at the Bluff, and in January, 1884, Mr. Goodall made his report to the Napier Harbour Board.

The financial history of the Board at this date was that about £75,000 had been raised and spent on the Inner Harbour. Mr. Goodall in his report condemned the Inner Harbour scheme and recommended the construction of a breakwater at the Bluff. The distinguishing feature of his scheme was the carrying-out of the breakwater from the Bluff at an obtuse angle to the set of the waves of the prevalent seas, so that the waves would run along the wall and be reflected along the beach, the design being that when the breakwater was sufficiently far out the force of the reflected waves would be great enough to drive the shingle back from the works.

This plan was in February, 1884, approved, and legislation was promoted to authorize the construction of the Breakwater Harbour and the raising of the necessary money. The work was commenced in 1886, and in 1909 the breakwater was finished to its present state and condition, but by no means finished according to Mr. Goodall's design. The expenditure on it to that point was £443,840; that included the building of the breakwater and the Glasgow Wharf. In the twenty-five years 1884 to 1909 a further £2,730 had been spent on the Inner Harbour, so that in 1909 the position was—Amount spent on the Inner Harbour, £77,730; amount spent on the Breakwater Harbour, £443,840.*

As already pointed out, the breakwater was not finished according to Goodall's design, and it has continued to the present day in an unfinished state. That this is so is clearly traceable to the fact that the Board has from time to time vacillated between the Inner Harbour and the Breakwater Harbour proposals.

In 1894 a series of storms inflicted damage on the breakwater. On the 7th February, 1894, there occurred what has been described as a storm with a heavy south-easterly swell. This caused

* This amount (£443,840) includes certain sums spent on reclamation of land and on beach protection works, but it was not found practicable to separate these items during our inquiry. They have not been kept separate in the Board's accounts.