

roadway serving road traffic on the east coast north of Napier. Any conflict of interests that became apparent was settled by compromise, the Harbour Board agreeing to a construction that would carry the railway, and the Public Works Department agreeing to the embankment being thrown farther west than they contemplated or desired so as to allow the space included to be adequate for harbour purposes.

In 1914 the Great War began and put an end to all constructive works such as were in contemplation here. However, in 1917 the Board was authorized to raise £50,000 to be used for the construction of the embankment, and the £300,000 authorized for Inner Harbour purposes was reduced by that sum, leaving £250,000 available for the balance of the harbour-construction. The ultimate cost to the Board of this embankment, including the diversion to a point outside the Inner Harbour basin of the Tutaekuri River, was £84,274. That sum was the net cost to the Board after the Public Works Department had contributed its quota.

In 1920 it was considered by the Board that the time was opportune to proceed with the harbour-construction, and again the ratepayers were approached and asked to sanction the necessary loan to go on with the Inner Harbour scheme. In accordance with the authority contained in the 1914 Act a poll was taken and the proposal was approved, 3,013 voting for it and 636 voting against it. On the authority of the 1914 Empowering Act, and with the funds made available by the loans sanctioned by the ratepayers in 1920, the Board started a series of works that might be called either "repairs and replacements" on the one hand, or a piecemeal carrying-out of the Inner Harbour construction on the other hand. The building of the embankment that defined the south and west limits of the harbour, and the diversion of the Tutaekuri River, have already been referred to. In addition to these works the Board began the deepening of the channel between the moles by dredging from a jetty built for the purpose. They rebuilt the Nelson Quay (the northern side of the Iron Pot) in a new design and in more substantial materials, and the reconstruction of the Western Quay in concrete was embarked on.

In 1924 a petition was signed by about 1,100 persons, including the Mayors of Napier, Hastings, and West Waipawa. It recited the history from the petitioners' viewpoint of the Harbour Board's activities since the propounding of Mr. George Nelson's scheme in 1909, and submitted that the tremendous financial burden imposed upon them by the unsystematized and abortive expenditure that they had alleged in their petition should be no further increased; it asked for investigation of the breakwater proposals, and prayed that a Commission of Inquiry should be set up to investigate all the matters recited in the petition. This petition was presented to Parliament, and one of the immediate results seems to have been that the Minister of Marine sent the Engineer-in-Chief of the Public Works Department, Mr. F. W. Furkert, to Napier to investigate and report. Mr. Furkert carried out his instructions and reported to the Minister on the 23rd August, 1924. His report appears in the Commission's Exhibit No. 1 as pages 193 to 200.

In his report Mr. Furkert concluded with a recommendation in favour of the Breakwater Harbour. He assumed that there would be no difficulty in cutting the proposed outer channel of the Inner Harbour and in dredging that channel and the channel between the moles to a depth of 35 ft. He arrived at the conclusion, however, that the expense of these works would be much higher than the trade of the district would justify, and, further, that the cost of upkeep would be too great to contemplate, considering the resources of the territory; and, finally, that its use would always be attended by considerable and unjustifiable risks to shipping that would be expected to use it. On the other hand, having in view the history of the breakwater, and the work it had done and the shelter it had afforded to shipping in its unfinished condition, he recommended that the Board's attention and activities should be directed to the completion of that work. This report was made available to the Harbour Board, and after considering it the Harbour Board decided to obtain a further report from Messrs. Cullen and Keele. In November, 1924, they wrote to Messrs. Cullen and Keele and invited them to visit Napier again to investigate four questions, which were—(a) The probable cost of completing the Inner Harbour to give safe accommodation for four ocean liners and other vessels that require berthage; (b) the question of erecting a half-tide wall controlled by sluice-gates or otherwise; (c) the probable cost of completing the Breakwater Harbour to give safe accommodation for four ocean liners and other vessels that require berthage; (d) the extra cost of maintenance over the present cost of each proposal. It should be noted that the half-tide wall referred to in (b) above was a distinguishing feature of Mr. George Nelson's Inner Harbour scheme.

In February, 1925, a series of borings was taken in the Inner Harbour and Breakwater Harbour. This work was done by Mr. Richard Pengelly, a man accustomed to such work, whose services were placed at the disposal of the Harbour Board by the Public Works Department. Mr. Pengelly's instructions were to bore the outer and inner harbour for the purpose of seeing what the bottom was like at both places. This work was in progress when Messrs. Cullen and Keele arrived, in April, 1925, to commence their investigations. They were supplied with Pengelly's reports, and at their request further borings were made at points indicated by them. Mr. Pengelly was engaged on the borings for about eight months. He reported the results of his work weekly to the Secretary of the Harbour Board, and his reports were all filed by the Board, and a complete copy was placed before us at the hearing: it is recorded amongst the exhibits as No. 23. The main results of his work were—(1) He disproved the alleged existence of a rocky bottom to the Breakwater Harbour; (2) he proved that the bottom of the Inner Harbour and the outer channel was composed of material that could be fairly easily dredged; (3) he disclosed the existence of a bank of boulders in the entrance channel between the moles that would make dredging somewhat difficult at that point. This bank was not extensive in area, and the difficulties of lifting it by dredging were not great. He found that it was difficult to hold and use a moored vessel in the strong current between the moles and in the tidal rip just outside.