

work, of which 21,765 tons were placed for the twelve months. The willow-plantations at Hannah's erosion have been fenced off and additional willows planted as required. The Cape Foulwind quarry has been in operation for the greater part of the year, a total of 26,765 tons having been quarried and transported to the protection works at Organ's Island, the western breakwater, Railway Department, &c. During the year the plant and buildings have been well maintained. The "Eileen Ward" and the "Maui" were sent to Wellington for annual overhaul, and the stream-tug "Mana" and the launch "Erli" were slipped and painted.

Karamea Harbour.—During the past year the preliminary work in connection with the reconstruction of the breakwater has been practically completed and a start made to place stone along the line of the training-wall. The laying of the tramway from the quarry to the outer end of the retaining-wall was completed. This included the ballasting of the track for a distance of 1 m. 50 ch., the erection of 280 ft. of trestle from the end of the tram-line to the beginning of the retaining-wall, cutting down and recapping the old training-wall, and laying throughout with stringers and rails a total distance of 15 ch. The plant, consisting of petrol-locomotive, portable engine, and compressor, with 5-ton crane, came to hand early in the year, and a locomotive-shed and two extra workers' cottages were erected. The further opening-up at the quarry has been carried out, the work involved being increased by slips from above the high rock-face. It was found necessary to pass round a blunt spur of comparatively soft rock before tapping the outcrop of harder material farther up the Oparara River, and quarrying operations to the end of the year were confined thereto. The recent disastrous earthquake caused very considerable damage to the existing training-wall. Full details as to the additional work required are not yet available, but it is anticipated that there will be considerable additional work on the staging and a probable increase in the amount of stone required. The existing wall has practically collapsed in places, and the work will have to be modified accordingly.

Waikokopu Harbour.—The existing works at Waikokopu have been adequately maintained. The hulk "Talune," which was sunk as an experiment to prove the value of a short breakwater, has now broken up entirely, and a contract has been let for the construction of a rock breakwater 5 ch. long. A 2½-mile tramway has been constructed up the Tahaenui Valley, off the Waikokopu Railway, for the purpose of obtaining limestone for the breakwater. Twenty ton trucks have been built for carrying the stone, and are now in operation. The contractor has erected a staging at the breakwater and has commenced the depositing of stone. The installation of a crane, air-compressor, and other plant has been completed at the quarry, and work should now proceed expeditiously. The wiring of the Harbour Board's shed and wharf for electric light for future use with standard voltage has been carried out, and is now in use in conjunction with a small lighting plant.

Karaka Point Wharf.—During the year all the timber and materials were landed on the site, and a contract let for erection. The work is now practically complete.

Raupo Ferry Slip Extension.—This work was completed early in the year, and this has enabled it to be ready to work in conjunction with the Tikiuui ferry slip across the river.

Rawene Launch-landing and Motor-landing.—A contract for the construction of the pontoon landing and steps, together with ramp landing for cars, was let early in the year. The bulk of the work is now done and should be completed very shortly.

Tinopai Wharf.—A contract has been let for the erection of this wharf.

Totara Wharf.—A contract was let for the erection of this wharf in New Zealand timbers, and was completed, together with approaches, early in the year.

Whangaroa Wharf.—This reinforced-concrete wharf has been completed during the period, with the necessary shed and cold store. The approaches were faced with rock.

Opunake Harbour.—Funds were provided for the Government for the removal of rocks in the fairway and in the vicinity of the wharf, and this work has been carried out, with the result that there is now a depth of 9 ft. 6 in. L.W.S.T., and shipping is beginning to use the port.

Half-moon Bay Wharf, Stewart Island.—During the year an extension of 51 ft. long by 31 ft. wide was completed. The approach to the wharf was also widened and strengthened by fitting additional bracing.

Miranda Wharf.—This structure, consisting of a wharf and jetty of a total length of 105 ft. 6 in., a galvanized-iron shed, and three retaining-walls, was completed during the period.

Matakana Wharf.—This wharf, which is of reinforced concrete, 1,440 sq. ft. in area, and carrying a shed with a floor area of 720 sq. ft., was erected during the year.

Whangamata Wharf.—All the timber has been delivered for this wharf, and arrangements are in hand for its erection.

Howick Wharf.—Extensive repairs were carried out at this wharf.

GENERAL.

A large number of applications have been received from local bodies and private individuals for the approval of works involving marine interests. Among the various applications were the following:—

Wharves.—Totara North, Whangaroa Harbour; Dargaville Wharf; Holmes Wharf, Oamaru; oil jetty, Wanganui; Kaiti Basin, Gisborne; Onakaka, Golden Bay; Lausfords, Tauranga Harbour; Mateotawa, Kaipara Harbour; Whangamata Harbour; Howard Point, Wellington Harbour; Taranaki Street Wharf, Wellington Harbour; cattle wharf, Napier Harbour Board.

Boat Sheds and Landings.—Horeke, Waihou River; Freeman's Bay, Auckland Harbour; Mechanics Bay, Auckland Harbour; Rawene Wharf, Hokianga Harbour; Pipitea Wharf, Wellington.

Transmission-lines.—Wairoa River, Tamaki Strait.

Boat Slips and Sheds.—Ferry slip, Raupo, Northern Wairoa; Devonport, Auckland Harbour; Surfdale, Waiheke Island; Balena Bay, Wellington Harbour; Paremata, Porirua Harbour.