

blocking the entrance to the Otumahana with a half-tide pile and netting wall. This work to influence and regulate the Karamea River flow is now in hand. Work carried out during the year to reduce the Otumahana overflow with a blockage of logs and cable was effective up to the time of the Easter flood.

Training-wall: During the year the work of replacing the old timber-pile wall by quarried stone has been expeditiously carried out, 11,803 tons of stone having been placed during the year. Further temporary strengthening and retopping of the old wall was necessary for stone-tipping purposes. The whole length of the wall (17½ chains) has been completed to half-tide level, while at the extreme outer end a length of 5 chains has been built as a full-tide wall. At a point near the approach bank of the training-wall 300 tons of ballast was tipped for use in extending the stop-bank round the adjacent length of Simpson's Island to prevent flooding of the tram-line during spring tides.

Oparara Quarry: At the beginning of the year a new quarry was being opened up. This has developed very satisfactorily and produced excellent stone. Various tunnels for quarrying the rock have been driven and fired with good results. During Christmas and New Year holidays the quarry plant and rolling-stock were thoroughly overhauled. At Rhind's erosion protective works, adjacent to and associated with the quarry, 833 tons of box stone and spoil have been placed.

Survey: A comprehensive survey has been made to definitely establish relative information concerning the harbour and adjacent areas for future reference and for the consideration of various proposals at present under review.

Little Wanganui Harbour.—Since the closing of the Karamea Harbour the Little Wanganui Harbour has been worked on an average of once a week. The "Kotiti" can reach the wharf at high tide at all times, while the "Fairburn" arranges her itinerary so as to call at spring tides. Towards the end of the year, a sandspit commenced to encroach on the up-stream end of the wharf and threatened to interfere with the berthage. This was partly due to the influence of a huge earthquake slip a short distance up the river. Proposals have been approved for the erection of a piled permeable groyne to regulate the channel-flow so as to give the desired berthage-improvement.

Waikokopu.—During the year work has been continued on the breakwater, except during the period when the contract was under revision. About 9,000 tons of stone were deposited in place, and, even though the wall is yet unfinished, the benefit to the wharf is very apparent, the shelter being very much improved. This locality is subject to very sudden storms, and as an indication of this it may be mentioned that the breakwater staging was wrecked by storms twice during the year. It is anticipated that this work will be completed in about six months' time. A transmission-line has been put in and the wharf-lighting connected up with the Power Board's electric mains. The wharf and wharf facilities have been well maintained, and the trade has been very constant throughout the year.

Tairua Wharf.—A new wharf was erected at the end of the existing jetty in place of the old wharf, which had collapsed. The new wharf has a kauri superstructure on turpentine piles.

Matiotitawa Wharf.—The approaches to this wharf were completed during the year.

Naumai Wharf.—The approach to this wharf was also completed during the year.

Tikinui Wharf.—Plans were prepared for the construction of a new wharf, 118 ft. long, with approaches, and the work has been put in hand.

Tinopai Wharf.—This wharf has been completed, together with approaches.

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:—

Foreshore Licenses.—Shelly Bay, Kaipara Harbour; Dargaville; Paritu Bay, Coromandel; Whangapoua; Whangaroa; Motukaraka, Wairupe Creek, Hokianga Harbour; Horeke, Hokianga; Awawa Bay, Waiheke Island; Beachlands, Maraetai, Auckland; Ohariu Bay; Awakino Creek, Wairoa River, Kaipara; Waitangi, Chatham Islands; Tamaki River, Mangatete Stream, Awanui; Onekaka, Hokianga; Gumstore Creek, Kaipara Harbour; Tairua, Thames Harbour; Pegasus Harbour, Stewart Island; Rawene, Hokianga Harbour; Tatarika, Kaipara Harbour; Pupuke River, Whangaroa; Rangauna Bay; Church Bay, Waiheke Island; Te Akau, Raglan Harbour; Awaroa and Opuatia Streams, Glen Murray.

Wharves and Jetties.—Queenstown, Lake Wakatipu; Te Karaka Point, Hokianga; Lyttelton; Puriri, Waihou River; Lake Taupo; Thorndon, Wellington Harbour; Big Bay, Manukau Harbour; Tairua, Thames; Nelson Harbour Board; Western Wharf extension, Auckland Harbour; Eastern Breastwork, Auckland Harbour; Naumai Wharf, Wairoa River, Kaipara Harbour; Tinopai Wharf, Wairoa River, Kaipara Harbour; Matakoho, Wairoa River; Kaipara Harbour.

Boat Sheds and Skids.—Evans Bay, Wellington; Whangaroa; Te Rawa, Pelorus Sound; Heathcote River, Sumner Estuary; Hobson Bay, Auckland, Whakatakataka Bay, Auckland Harbour; Gold Hole Beach, Northcote, Auckland Harbour; Ferry Wharf extension, Wellington Harbour.

Bridges.—Whangape Stream, Waikato River; Waikato River, Tuakau; Whau Creek, Auckland; Meola and Motion's Creek, Auckland Harbour.

Retaining-walls and Outfalls, Reservoirs, &c.—Ponsonby, Auckland Harbour; Sumner; Haughton Bay, Cook Strait; Otahu, Manukau Harbour.

Transmission-lines.—Uretara River, Kati Kati.

Harbour-works.—Whangarei Harbour Board; Otago Harbour Board; Wanganui Harbour Board; Wellington Harbour Board.