

20,000 acres. A Gurley water-level recorder has been installed on the Wairoa River at Ruawai Wharf for the purpose of collecting data as to the tide-levels, and the preparation of plans and a general study of the scheme will be assisted greatly as a result of an aerial survey which has been made.

AUCKLAND DISTRICT.

Te Kawa Drainage Scheme.—Drainage-work under this scheme was completed in August, 1937, and handed over to the Te Kawa Drainage Board for control. Various factors operated to prolong the duration of the work; a considerable amount of wet weather was experienced, and employees were taken from the job from time to time to supply farm labour at a time when water in the drains was lowest. However, the work has proved satisfactory and, despite some heavy rains experienced, the completed drains were entirely free from flooding. During the period 2 m. 20 ch. of drains were widened and deepened, while the total length attended to from the commencement totalled 17 m. 64½ ch.

Paewhenua Drainage Scheme.—This scheme, which is for the purpose of draining an area of approximately 2,133 acres already under settlement, has been completed, and during the year general attention was given before handing it over to the Otorohanga County Council.

Waihou and Ohinemuri Rivers Improvement (Maintenance).—The flood waterways on both these rivers have been kept clear of obstructions, and the important flood-gates have been overhauled and all necessary repairs carried out. The river-channel near the Puke Wharf was dredged, to its general improvement.

Waitoa River (Clearing).—Satisfactory progress has been made during the year with the pulling and burning of willows and the clearing of berms. Both banks were cleared for 29 m. and the river-channel for 31 m. This work is now nearly finished and has resulted in generally improved conditions during floods.

Waipa River and Tributaries (Clearing).—This is a major work involving the clearing of approximately 200 m. of waterways. Some camp accommodation has been prepared, but no serious work has been undertaken as the scheme has not yet been finalized.

Hoteo River and Tributaries (Willow-clearing).—This scheme was put into operation during the year and consists of the removal of willows over a distance of 40 m. The willow-growth is thickly matted and serious floods occur in the area. Satisfactory progress has been made during the period; topping and clearing of debris has been completed over a length of 6 m., 3 m. 60 ch. has been cleared of stumps and roots, and all trees, &c., removed from the stream burned for a distance of 1 m. 40 ch.

Taupiri Drainage Scheme.—The work outlined in last year's programme has been extended to cover a total length of 132 m. 71 ch. of watercourses, and during the year a further 52 m. 46 ch. was handed over to the Taupiri Drainage Board after final attention. Four machines worked for one month, two for one month, and one for ten months excavating 62,323 cubic yards, or approximately 3,895 cubic yards per machine per month. During the year 11 m. 20 ch. of drains were dealt with, and the remaining work covers a length of 6 m. 26 ch. Other work completed consists of 90 ch. of fencing and 32 ft. of bridging.

Sand-dune Reclamation.—South Kaipara Heads: During the year an area of 660 acres was planted in marram-grass, which is making satisfactory progress. A considerable quantity of lupin-seed was collected and sown, the young lupins showing up well, while the older planting of marram has a good covering of lupin. The area has been well maintained and is in excellent order, the favourable season being conducive to good growth in both marram-grass and lupin.

Woodhill-Muriwai-Helensville: General conditions during the year proved favourable, resulting in a good growth of marram-grass, lupin and trees. The latter, generally, are doing well, although some loss has occurred through the depredations of rabbits. Continual poisoning is necessary to keep this pest in check. During the period 230,000 trees were planted out, while 120,000 seedlings were lined out in the nursery. Caterpillars caused some loss among the seedlings. In addition, 300 acres of new marram-grass were planted and 200 acres replanted, the total area planted to date being 9,000 acres. Six tons of lupin-seed were gathered during the season, of which 3 tons have been sown. 3 m. 43 ch. of standard fencing was erected and 2 m. of foredune fencing rebuilt. The condition of the planted area is, generally, very satisfactory.

Pakiri and Te Arai Areas: The nurseries already established have been well maintained and are in good order. Thirty acres of extensions have been planted and 25 acres of existing nurseries replanted. The marram-grass is bunching out well and there are good prospects of obtaining future supplies of plants.

North Waikato Heads and Kariotahi: Reclamation work has been further extended by a vigorous programme of operations during the past year. Five hundred and two acres of marram-grass and 131 acres mixed species of pine-trees were planted, and 600 acres sown with lupin-seed. Two hundred miles of new lines were cleared through the lupins ready for tree-planting, and 800 miles of lines already planted were gone over and excess growth cut back. Sixty-two chains of boundary fences, 18 ch. of sand-arresting fence, and 45 ch. of brush fences around the nurseries were completed. At No. 1 camp twenty-two tents and a cookhouse, at No. 3 camp a cookhouse, meeting-room, washhouse, and conveniences (with septic tank), twenty huts, water-supply, and 15 ch. access road, and at No. 2 camp a house for the officer in charge, a hutment for the Foreman, and two workmen's huts, were all completed during the year. Reclamation work to date totals 4,040 acres of marram-grass, 1,680 acres in lupins, and 406 acres in trees, whilst 92 ch. of sand-arresting and 172 ch. boundary fences have been erected.

TAUMARUNUI DISTRICT.

Mokau River (Willow-clearing).—The ring-barking and poisoning of willows on the Mokau River has now been completed from the Mapiu Stream for a further distance of 3 m., leaving 2 m. still to be completed. Poisoned willows will be cut and hauled this coming season.