

APPENDIX III.—LAND-DRAINAGE OPERATIONS.

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THIS branch of the Department has had a very busy year, the results of the different undertakings showing that much progress has been made. The ramifications of the branch have been extended in many different directions. All officers on the staff have been actively engaged in drainage and kindred work, and the year just ended shows a marked increase in work over that of the previous year. Many projects have had to be left in abeyance owing to the small staff not being able to cope with all demands.

Separate reports as required by the Acts under which they are administered, have been made on the Hauraki Plains, Rangitaiki Plains, Kaitaia, Waihi, Poukawa, and Hikurangi reclamation areas. Many special inspections and reports have been made including Waiharahara Swamp, Kaihu Valley drainage, Whangamata River, Elstow drainage, Kerikeri drainage, Waipa drainage, Tahaia Soldiers' Settlement, Te Mata water-supply, La Fontaine and Harihari Swamps, Whangamarino Swamp, Lake Waikare, Rotongaro Swamp, and numerous other small works. Works done by local bodies out of grants and subsidies for river, drainage, and road works have been inspected after approval of plans and specifications, a total of £5,555 18s. 11d. having been passed for payment to the different bodies.

Hereunder is a short report on works that have been carried out under the direction of the branch :—

Awaiti Block Outfall.—All necessary drains have now been constructed in this district, and the block is protected by a stop-bank erected by the Public Works Department. Work during the year mainly consisted of widening, deepening, and improving drains and maintenance. Expenditure was £428 8s. 1d.

Awaiti-Netherton Road (Metalling).—This metalling was completed with the exception of 70 chains at the southern end. This portion is heavy-timber country, and a considerable amount of stumping was done during the year. In view of the subsidence which takes place after the stumping, it is advisable to postpone the balance of the metalling for twelve months in order to allow the road-line to settle. Expenditure, £1,297 17s. 1d.

Hauraki Plains (Metalling Roads in).—During the year some 7 miles 55 chains of roads were metalled, details of which will be found in the report under the Hauraki Plains Act. Expenditure £9,103 8s. 11d.

Hauraki Plains (Maintenance of Completed Works, Drains, &c.).—During the period some 199 miles of drains were cleaned, partly by day labour and partly piecework. In addition to this numerous repairs to roads were carried out. Expenditure, £5,671 19s. 6d.

Piako and Waitoa Rivers Improvement.—This work has been carried out by Priestman dredge No. 1, a distance of 38 chains having been dredged during the year. Owing to the very dry weather difficulty was encountered in keeping the dredge going, owing to depth of water. This also interfered with the transit of coal-supplies. Expenditure, £688 18s. 3d.

Pukahu Road Formation.—The formation-work was practically finished during the year and a necessary culvert put in. Expenditure, £69 2s. 6d.

Waitakaruru Stream (Improvement to River-bank).—The canal cut was finished by Priestman dredge No. 2 during the year and the banks and bottom of cut trimmed up. Expenditure, £283 16s.

Waitoa River (Snagging).—This work has been carried on by No. 1 dredge in conjunction with its canal work on the river. Expenditure, £156 8s. 10d.

Hauraki Plains (Construction of Roads and Drains on Crown Lands adjoining).—The only work done consisted of repairs to road, erection of two small bridges, and maintenance of drains. Expenditure, £155 11s.

Lees Valley.—These works were completed in June, adding another 48 chains of drains and one ford-crossing to last year's total of works. The total length of drains in operation is now 12 miles 1 chain, in addition to which fourteen diversions to Duck Creek—totalling 96 chains—and nine ford-crossings have been constructed. Excellent results have followed the expenditure. Expenditure for year, £628 12s. 5d.

Lake Omapere Drainage.—This work, rendered necessary in order to unwater the low-lying sections in the Remuera Soldiers' Settlement, consists in the lowering of the surface level of the above lake by approximately 3 ft. 6 in. by improving the outlet. Engineering surveys were made and the works commenced last January. The excavation is practically all in rock, and requires enlarging for a distance of 35 chains. The continued high level of the lake and the consequent big summer run-off has somewhat hampered the progress, but it is hoped to complete the work about July next. Expenditure to date, £355 1s. 2d.

Tokatoka No. 3 Additional Loan Block.—The draining of the block is now complete, and 13 miles of drains are in operation. Road-formation works—total distance, 3½ miles—are also complete with the exception of the metalling. Eighteen artesian wells have also been sunk. This block, comprising 1,625 acres, in Block XII, Tokatoka Survey District, was disposed of as a soldier settlement in twenty-five sections in January last. The main roads will be metalled next summer. Expenditure for the year was £2,940 0s. 8d.

Orongo Settlement.—The development of this settlement, comprising draining, roading, and eradication of fescue, was commenced in January of last year. The drainage-works have been completed, and comprised in all 4¼ miles of stop-bank, 16½ miles of drains, three concrete flood-gates, and the damming of four tidal creeks. Road-formation works, of which some 4 miles is required, in