

measure, was discontinued in June, 1936, when it was decided to complete the work more economically with a mechanical excavator. 2,496 cubic yards of earth were placed with wheelbarrows in raising 17 chains of stop-bank. Tenders were called for cleaning 107 chains of main drains in this district in addition to the maintenance work carried out by co-operative contract parties. Minor undertakings included the erection of a light rolled-steel-joist bridge over the Waitakaruru-Maukoro Canal and noxious-weed eradication.

PATETONGA DISTRICT.

In this district a party of six to ten men has been continuously employed on drain construction and maintenance. 1,645 chains of drain were cleaned and 12,659 cubic yards excavated in enlarging and improving 340 chains of drain. A small co-operative contract party completed 150 chains of drain improvement at Koromatua, involving 7,144 cubic yards of excavation.

A party of six men has been employed with a log-hauler removing willows, previously ringbarked, and scrub from the banks of the Piako River since January, 1936, with an interval of five months, August to December, when work had to be suspended owing to the high-river stage. Both banks have been cleared of heavy growth for a distance of 170 chains. During January, February, and March two working parties were engaged inspecting and treating with poison the willows not killed by previous ringbarking on a 160 chains reach of the Piako River and 520 chains reach of the Waitoa River.

Alteration to the Mangawhero Stream culvert was carried out to prevent damage to the concrete-lined channel by drift timber.

SURVEYS AND OFFICE WORK.

Engineering surveys carried out during the year required 200 miles of traverse, 470 miles of levels, 261 river cross-sections, and 99 chains of road location. Land surveys of eighteen rural sections and 3 miles of road were completed. A very considerable amount of routine work was carried out in connection with the measurement of earthwork completed by contractors and the Department's excavating machinery, measurement of area of land cleared and ploughed, and the preparation of plans.

The average number of individual employees shown on the pay-sheets throughout the year was 175; the actual number employed has varied between a maximum of 219 men in May and a minimum of 161 in September, 1936. These figures do not include contractors and their employees engaged on buildings, road-construction, and seasonal drain-cleaning. A large portion of the construction work is carried out on the co-operative contract principal, and all workers are paid fortnightly. This involves a considerable amount of travelling for the office staff in addition to the work of preparing contract vouchers, wages-sheets, and stores management.

The field and office staffs have carried out their duties with zeal and efficiency.

SUMMARY.

The total length of the subsidiary drains constructed on the Hauraki Plains since the inception of the scheme is now 780 miles 68 chains.

The principal works carried out during the year under review are summarized in the following schedule :—

	Length.	Excavation.
	M. Ch.	Cubic Yd.
Drains cleaned by manual labour .. .. .	72 2	..
Drains widened and deepened by manual labour .. .. .	21 15	52,162
Drains, new, constructed by manual labour .. .. .	7 0	20,643
Stop-banks enlarged by manual labour .. .. .	0 17	2,496
Total quantity of drainage excavation by manual labour .. .. .	.. ..	75,301
Drains cleaned with weed-cutting launch .. .. .	7 32	..
River and canal improvement, machine construction .. .. .	8 50	171,717
		Metal.
Roads metalled .. .. .	2 32	4,006
New roads formed .. .. .	0 42	..
		Ballast.
Clay ballast delivered on peat roads by light railway .. .. .	.. ..	4,483
		Number.
Sleepers cut and delivered for tramway .. .. .	.. ..	5,522
Fascines used for road-construction .. .. .	.. ..	1,260
		Acres.
Area cleared of scrub and rushes .. .. .	.. ..	124
Willows ringbarked on river-banks .. .. .	8 40	..
River-banks cleared of willows and scrub .. .. .	2 10	..
		Number.
Road bridges erected .. .. .	.. ..	2
20 ft. span hardwood stringers and pile abutments (1)		
45 ft. span rolled-steel joist (1)		

I have, &c.,

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