

Hereunder is a short report on works that have been carried out under my control, in connection with the various grants, &c.:—

Hauraki Plains, Construction of Roads and Drains on Crown Land adjoining.—Some 50 chains of road has been formed, and further work is now in hand. The expenditure during the year was £121 1s. 2d.

Hauraki Plains: Orchard East Road Extension.—This work connects the Orchard Road with Turua-Netherton Road, thus providing a direct outlet for the proposed Orchard Bridge. Some 75 chains of road was completed, 60 chains cleared and grubbed, and further works are now in hand. The expenditure during the year was £289 18s.

Hauraki Plains: Waikaka Tramway Road.—This is a grant to assist in the construction of Patetonga (Waikaka) Tramway Road. The road has been fascined and ballasted throughout, and is now being widened so as to be used for vehicular purposes. The expenditure during the year was £1,250 9s.

Hauraki Plains, Metalling Roads in.—The work done under this heading has been given in detail in the report on Hauraki Plains operations. The total length metalled to date is $9\frac{1}{2}$ miles. Metal is principally obtained in Kaueranga Stream, Thames, and barged over to the plains by our own plant. We have also obtained metal from the Auckland Shingle Company. During the year the following roads were metalled: Pipiroa-Waitakaruru, 100 chains; Kopuarahi-Turua, 180 chains; Kopuarahi-Kopu, 180 chains. The expenditure during the year was £4,229 6s. 5d.

Hauraki Plains: Maintenance completed Works, Drains, &c.—This vote is for maintaining drainage-works on the settled portion of the Hauraki Plains until such time as the rating clauses become operative. Roads and drains have been generally maintained during the year, the expenditure being £1,332 18s.

Hukerenui Swamp Drainage.—Some 2 miles of levels were run, and contracts let for drains approximating this distance. Payment was also made for drains completed last year. The expenditure during the year was £129 17s.

Kopu Ferry Road to Hauraki Plains.—This is for road to connect Hauraki Plains with contemplated ferry near Kopu. Some 40 chains of road were completed, but the work is held up until such time as the local bodies concerned decide on the western terminal of such ferry. The expenditure was £98 12s.

Morrinsville-Waitakaruru Road.—Some 20 chains of road-formation was completed, at a cost of £64 18s. 6d. The formation will be proceeded with immediately the balance of road is legalized.

Ngarua Road and Canal.—This canal leaves the Piako River where the Ngarua Creek joins it. It has been cut for 125 chains, some 79,707 cubic yards being taken out. A dam had to be constructed, so that the dredge would not be liable to tidal influences. The cost for the year was £449 8s. 6d.

Patetonga South Road.—This road, 65 chains in length, has now been completed. The expenditure for the year was £175 12s., including compensation.

Piako and Waitoa Rivers Improvement.—This has been mainly widening of the Piako River between Kerepehi and Waikaka Canal by the two Priestman dredgers. The good effect of the work done was apparent during the heavy rains in March, when the Piako River only rose a few feet at Kerepehi. During the year some 21,026 cubic yards were dredged; at Patetonga Landing the approaches to the wharf were deepened, some 12,730 cubic yards being taken out. The cost for the year was £1,044 15s. 4d. During the coming year it is proposed to dredge portion of the Waitoa River, south of its junction with the Piako River.

Rangitaiki Drainage District: General Road-construction.—A distance of 6 miles 24 chains was completed during the year, and a further distance of 11 miles is now well in hand. The expenditure was £1,163 9s. 8d.

Waikato River: Engineering Surveys.—The engineering survey of the Waikato River was continued under the local charge of Mr. Allan Morpeth, Land-drainage Engineer's assistant. The larger part of traversing done was swamp-edges and islands in the vicinity of the Whangamarino Swamp, some 70 miles having been completed. Levelling mainly consisted of lines run through the swamp area to locate the fall in various parts, and to find out what proportion of the land was drainable, not being subject to normal floods. Some 25 miles of levelling was done. Cross-sections of the river were taken from Mercer to Rangiriri, some thirty-eight being taken in that distance. Cross-sections were also taken at various places near the groynes put in by the Waikato River Board, and compared with those taken in 1913, to show result of groyne-work. The tide-gauges established last year were read at various times. Inspections of the Waikato River from Cambridge to Ngaruawahia, and of the Waipa from Pirongia to Ngaruawahia, were also made. In addition, inspection was made of the small tributaries of the Waikato River near Mercer. The field-work has now been completed, and plans will be finished early in May. The expenditure during the year was £590 8s. 8d.

Waitoa River: Snagging.—This river has now been snagged as far south as the Te Aroha-Morrinsville Railway. During the year some 4 miles 9 chains of river was snagged, and 5 miles weeded. The expenditure for the year was £887 1s. 10d.

Opouriao Protective Works, to prevent Encroachment of River.—All the old works have been kept in repair and are in good order. New works during the past year consisted chiefly of the erection of boom groynes, some 2,794 ft. being constructed; 150 ft. of wire-netted stone groynes were also put down; and some 85 chains of the river-bank has been fascined and protected with willows. The past season was unfavourable for the successful planting of willows, or more of this work would have been done. The expenditure during the year was £1,071 9s. 10d.

Waimana River Protective Works.—The works completed last year have been maintained. Three boom groynes of a total length of 528 ft. have been erected. The proposed new channel through Section 19 was laid off and cleaned ready for scooping. The land required to be resumed for same was surveyed, and willows planted to protect the proposed new channel. The expenditure was £262 11s. 10d.