

*Hauraki Plains, Metalling Roads in.*—The work done under this heading has been given in detail in the Hauraki Plains report. To date some 166 chains of Turua Road have been metalled, and some 160 chains of the Pipiroa-Waitakaruru Road. We are now obtaining gravel from the Kauaeranga Stream, Thames, and this is being taken to the works by our own plant, some three large pontoons being purchased or built during the year. This will ensure a better class of gravel being obtained at a much less cost than was previously supplied under contract. The expenditure during the year was £4,095 3s. 4d.

*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. During the year some seventy miles of drain have been cleaned, and some twenty-eight miles of stop-bank kept in good repair. The expenditure during the year was £2,018 9s. 8d.

*Piako and Waitoa Rivers Improvement.*—This work consisted of dredging the Piako River from Kerepehi southwards. Spoil removed during the year amounted to 147,740 cubic yards, at a cost of 3·2d. per cubic yard. The expenditure during the year was £2,073 13s. 5d.

*Rangitaiki Drainage District: General Road-construction (on account £1,500).*—Some 16 miles 47 chains of road were formed out of the above votes during the year, the expenditure totalling £2,289 5s. 8d.

*Waikato River: Expenses of Engineering Surveys.*—The engineering survey of the Waikato River was continued under the local charge of Mr. Allan Morpeth. The field operations, being so extensive, necessitated a great deal of moving about, shifting camp, &c. Levelling was carried out on the main river, and on the Whangamarino, Waikare, Whangape, and Maungatawhiri Creeks. Gauges were established at various points, and the velocity of the river taken every quarter of a mile from Rangiriri to the Heads. The gauges have been read right throughout at various times, and the tidal gauges were read for twelve hours at a stretch, so that the Waikato River could be compared with Waitemata, Manukau, and Kaipara Harbours regarding the time and height of various tides. The following has been carried out during the year: Levelling, seventy-five miles; compass traverse, seventy-five miles; cross-sections taken, eight averaging 110 chains each, forty-two averaging 16 chains each; soundings taken, 800; velocities taken about every quarter of a mile for forty-one miles (Rangiriri to Heads); gauges established and read frequently, fifty. An inspection was also made during the year of the Waikato River from Horahora (Cambridge) to Rangiriri. The cost of the work during the year was £1,403 5s. 8d. which includes the maintenance and running expenses of two oil-launches employed on the works.

*Waitoa River: Snagging above Junction with Piako River.*—During the year 1 mile 22 chains of this river was snagged by day labour, and a contract was let in December for a further 3 miles 45 chains, of which one mile had been completed at the end of the year. The expenditure for the year was £523 2s. 4d.

*Opouriao Protective Works to prevent Encroachment of Whakatane and Waimana River.*—A small amount was spent in maintenance during the year, but no new works were undertaken until the last week in March. Future works will consist of construction of groynes, planting of willows for protection purposes, and the further improvement of diversion channel. The work already done is in good condition, and beneficial results have ensued, as land that was previously under water during moderate freshes is now free from water during heavy floods. The expenditure during the year was £147 4s. 11d.

*Waimana Protective Works to prevent Encroachment of River.*—At Waimana the works completed last year have been maintained, and in November a start was made on new works, groynes being erected on Sections 15, 17, and 18, Waimana Settlement. The line for the proposed diversion of the Waimana River through Section 19 was cleared, but work had then to be stopped till the land is resumed, as the owner objected to work being proceeded with. Work contemplated for the future consists of cutting this channel and continuing the stop-bank for about a mile at the south end of the settlement. The expenditure during the year was £293 1s.

*Monavale Swamp, Cambridge.*—An engineering survey of the Monavale Swamp was started in December last. To date some twenty-five miles of levels have been taken, together with the necessary compass survey. The field-work of the swamp and its outlets is now about three parts completed. The expenditure during the year was £186 8s. 5d.

The following large schemes were carried out by this branch, and, of course, comprise the major portion of the works: (1) Hauraki Plains drainage-works; (2) Rangitaiki drainage-works. The progress of these two large schemes are treated in separate reports.

Land surveys have been carried out by two field parties which subdivided the drained areas of the Hauraki Plains, and are also engaged upon the survey of the adjoining Crown land roaded and bridged by this branch. The area surveyed during the year was 2,397 acres, and a further survey covers some 13,900 acres, of which all the sections have been pegged.

*Engineering Surveys.*—Some 110 miles of engineering surveys have been made in connection with the Hauraki Plains works, Rangitaiki drainage-works, Waitakaruru Loan Block, &c.

*Office.*—The total expenditure certified to for payment was £57,028 15s. Of this amount direct Treasury payments amounted to £19,268 2s. 11d., payments through Thames and Taneatua Imprest Accounts to £37,697 5s. 2d., and payments through Post Office to £63 6s. 11d. Some 155 piecework and four special contracts were in operation. Inward correspondence amounted to 1,620 letters, and outward to 1,715 letters.

A considerable number of engineering, road, survey, and other plans were made, and various tracings both for photo-litho and other purposes were made.

The expenditure quoted is what was actually expended on the various works, but will not necessarily agree with the figures shown in the tables for the year submitted to Parliament, as a portion of the expenditure was not brought to charge before the close of the year.