C.—4.

Labour and Cost of Works.—The work during the summer was greatly handicapped owing to the gumfields claiming all surplus labour. High prices paid for gum caused an exodus from labouringworks, and only the poorer classes of labourer were available at the wages offered by the Department. However, several piecework contracts were let, and a small nucleus of contractors kept to put through the different works. As the price of gum fell workmen were available and contracts let more easily, and towards the end of the year everything returned to normal, with plenty of labour offering. Wherever possible work has been done by contract, and a considerable saving has been effected in actual working and oversight expenses.

Summary of Works.—Main and outfall drains, 1,217 chains (total drains, 1,506 chains); road-drains, 289 chains; stop-banks, Awanui, 577 chains; road-formation, 340 chains; cleaning and maintenance, 710 chains; spillway, Kareponia, 110 chains; dredge-chainage, 105 chains; dredge,

average yardage per chain, 400 yards; river-diversions, two.

General.—The year just ended has presented many difficulties as regards supplies of coal and timber, and it is hardly necessary to traverse the reasons leading up to this, as they are so well known. Firewood was used to help out the coal, but necessarily the ratio of dredging effected was lowered. Timber it was almost impossible to obtain, but the Department has secured certain areas for cutting purposes, and has arranged with a local miller to handle same. The chief anxiety is to get sufficient timber together for dredge-hulls in anticipation of arrival of machinery. Two machines, comprising a Priestman grab dredger and a Bay City "dipper" dredger, have been marked for these works.

The local engineer, Mr. R. J. Cornwell, has carried out the year's operations in an energetic and

capable manner.

Surveys.—During the year two miles and a quarter of road was surveyed, also five miles and and three-quarters of spillway, from Kaitaia River to Pairatahi River. Work on the field also comprised eleven miles and three-quarters of river transverse, and commencement of surveys of 4,500 acres of Crown lands, divided into fifty-three sections. The surveyor in charge is Mr. Nelson Clay. Total expenditure, £442 2s. 2d.

Works Expenditure.—The total expenditure for the year was £24,173 17s. 4d., including wages, piecework contracts, hire of teams, supplies, and general expenses. Of this amount the sum of £17,941 11s. 11d. was paid out of Kaitaia Imprest Account for wages, piecework contracts, &c. The principal payments were—day labour, £5,690 10s. 2d.; piecework contracts, £11,246 13s.; hire of teams, £1,418 18s. 8d.

HIKURANGI DRAINAGE AREA (50,000 ACRES).

All the preliminary works, surveys, plans, &c., in connecton with the Wairua River portion of this work have been completed. Plans and specifications for the major work—the river-diversion—were completed, and tenders called for, it being hoped to let this work by contract. Unfortunately, no tenders were received, presumably owing to the uncertainty of labour at that time and the dearth of suitable machinery in New Zealand. The estimated quantities of excavation for this particular portion of the work are 61,570 cubic yards of earth and 114,110 cubic yards of rock.

As there appeared in the circumstances no option but for the Department to undertake the work itself, instructions were cabled to America for the purchase of necessary plant. Accordingly three combination steam-shovels (convertible to drag-line excavators), two petrol-locomotives, and complete sets of rock-drilling plant were acquired, and are shortly due in the Dominion. These will be got on to site of works this coming summer. Initial preparations are under way for undertaking the operations, erection of huts, and so forth. Engineering and land surveys have been already completed.

Expenditure for the year was £441 2s. 4d., exclusive of machinery, which has not come to charge

as yet.

Poukawa Drainage Area (13,567 Acres).

No work has been done in this area during the past year, as the difficulties with regard to the Native owners have not yet been removed. The question of commencing work is now under consideration.

The plant on the area is in good order. The buildings comprise office, workhouse, workmen's quarters, and toolhouse, all of which are in good order. These are in charge of a caretaker, who takes readings of the daily rise or fall in the lake-level.

Rainfall for the year was 21.31 in., the average for the past four years being 29.62 in.

Expenditure for the year amounted to £91 5s.

WAIHI DRAINAGE AREA (22,720 ACRES).

The dredging of the Wharere Canal through the middle of the Crown portion of this swamp has been the only work of any magnitude carried out during the year. The dredging of 82 chains of this canal cost £2,054 13s. 9d., some 63,495 cubic yards of spoil being excavated at an average cost of 7.77d. per yard. This canal has been constructed now to such a point that the subsidiary drains can be commenced, and several contracts have been prepared, and this hand-work should be commenced at an early date.

In conjunction with the laying-out of these drains the survey of portion of the Crown area has been undertaken. As the land is all first class, sections containing 50 acres each are being surveyed,

with a few smaller ones near the Pongakawa Railway-station.

In anticipation of further development-work of this area, and the arrival of at least one of the new American dredges on this work, a four-roomed cottage has been erected alongside the Pongakawa Station so as to provide accommodation.

The only other works carried out were the clearing of 120 chains of drain, and the removal of timber from 75 chains of the Kaikokopu Stream. The total cost of the works mentioned above for

the year, including surveys, was £3,12 $\bar{7}$ 2s. 6d.