

pumping scheme. The machine made fair progress until near the end of August, when it was held up for some days owing to a breakdown. It was then decided that the work of removing heavy timber from this drain was too severe a strain on this plant, and it was shifted to the Kaikokopu Stream. At this time 31 chains of the Wharere Road Drain had been completed and 3,050 cubic yards of spoil shifted. On the Kaikokopu Stream the work consisted of the improvement of the stream-bed by the removal of accumulations of sand which was placed on the right bank to form a stop-bank for the purpose of preventing flood overflow on to adjoining settled land. This work proceeded fairly steadily, although there were several delays for repairs to the machine, and difficulty was experienced in forming the stop-bank in the restricted space available between the edge of the stream and the roadway. A further complication was the presence of a high-tension power-line on the line of the proposed stop-bank. At the end of March 70 chains of this work had been completed and 16,600 cubic yards of spoil excavated.

The flood-pumping station constructed last year at the junction of the Wharere Canal and Waerenga Road has progressed one stage further during the year. The culvert pipes for the discharge of the pumps have arrived and have been installed, together with the necessary flood-gates and fluming into the canal. The pump, motor, and other gear arrived at the end of March, and will be installed immediately. A start will then be made with the excavation of the inlet drains, which have been left until the pump is in operation so as to facilitate the removal of any heavy deposits of timber.

The T.D. 35 tractor was employed in the district for about eight months during the year. From April to July the machine was employed crushing heavy blackberries, forming cattle-tracks, harrowing pastures, &c. It was then transferred to the Rangitaiki district for the winter and returned again in December, when it was engaged for a month on the pulling of willows and timber from 70 chains of the upper end of the Kaikokopu Stream to improve the channel. From January to March the machine carried on with heavy harrowing, carting of spoil and timber, levelling of dredge-tracks, &c. During the year 438 acres were harrowed and 21 miles 40 chains of tracks cleared through the swamp with this machine.

The normal amount of drain-cleaning was done during the year. The work was carried out mainly by contract, and the total length of main drains cleaned amounted to 35 miles 61 chains. A small amount of widening and deepening by hand labour was also carried out, 2 miles 10 chains being completed for the year.

During the year the survey party from Thornton carried out a topographical and soil survey of part of this district, covering the area of 1,600 acres between the Pongakawa Stream and the Wharere Canal. Other work included an engineering survey of part of the Upper Pongakawa River. In this district $14\frac{1}{2}$ miles of levels were run and 24 bore-holes for soil sampling were made during the year.

The rainfall gauged at Pongakawa at 9 a.m. daily totalled 55.42 in. for the year. The wettest month was October, when 11.15 in. was recorded, and the driest was February, with a fall of 0.68 in. From the climatic angle the year has been very favourable. Though there was a certain amount of flooding in October, this was not unduly serious. The dry spell after Christmas has not been very pronounced in this area, and pastures are at present in good condition.

Expenditure and Rates.—Expenditure on maintenance for the year, £1,240.

Rates struck : Special, £765 3s. 5d. ; general, £1,607 13s. 2d.

Rates collected, including arrears : Special, £1,687 6s. 3d. ; general, £3,581 16s. 3d.

The fact that penalty dates for both 1946-47 and 1947-48 rates fell within the financial year ending 31st March, 1948, accounts for the abnormally large rate collection during the year under review.