

The following summary shows the particulars of works completed during the year :—

	M.	ch.
New drains	1	47
Cleaning drains	22	75
Deepening drains	1	60
Dredge cuts	4	2
New stop-banks	0	54
Repairs to stop-banks	7	0
Fencing	1	70
Road-formation	1	60
Spoil excavated by dredges	cubic yards, 162,081	
Spoil excavated by scoops	,, 11,800	
Flood-gates erected	(number) 1	
Pile bridges	,, 2	
Sill bridges	,, 5	

Works Expenditure.—The total expenditure for the year as shown in the books at Auckland Office was £13,428, the principal items being—day labour, £4,689; piecework contracts, £2,261; and hire of teams, £326.

The local Engineer in charge is Mr. T. S. McMillan, Assistant Engineer, who has carried out the year's operations in a capable manner.

WAIHI DRAINAGE AREA (22,720 ACRES), TAURANGA COUNTY.

The development of the drainage scheme on this area has reached a point where practically every portion of the swamp has received some direct benefit from the operations. The only exception to this statement is portion of the Upper Pongakawa Swamp, which is situated to the south of East Coast Main Trunk Railway. This portion is now the subject of investigation, and it is quite probable that operations will be commenced in this area during the coming year.

In view of the direct benefits derived from the works, it is advisable that the area should be classified by arbitrators, as provided under the Swamp Drainage Act, so that the necessary rates can be struck to cover the cost of construction and maintenance.

It is of interest to record that the seven sections thrown open for selection in 1922 have taken grass satisfactorily, and there is no question that these sections will make good farms.

Although no further land was thrown open for subdivision during the period, the various works on the Crown area have been pushed vigorously forward, and some twenty-six sections, containing upwards of 1,000 acres, were recently valued with a view to early disposal. Operations were extended during the year to the Waewaetutuki Block, where an abnormal amount of timber was encountered in the various drains, and also to the block of Crown land between the Wharere Canal and the Pongakawa Stream. Portion of the latter block, comprising some 500 acres, will be available for selection early in the coming period.

A rain-gauge was installed at the office at Pongakawa in May, 1923, and the rainfall from the 1st June, 1923, to the 31st March, 1924, totalled 43.75 in.—the wettest month being September, 1923, with a fall of 8.22 in., and the driest November, 1923—fall, 1.92 in. The heaviest daily fall was 2.96 in. for twenty-four hours ending at 8 a.m. on the 27th October, 1923.

Wharere Canal.—Deepening of this canal was continued northwards until the beginning of September, 1923, when dredge was brought back up-stream to a point some 20 chains south of Tainui Road, where repairs to pontoon were carried out. Redredging of the canal, especially at intersections of side drains, where large deposits of silt had lodged, was proceeded with, and by the end of the period 110 chains had been completed. Spoil from this canal is being deposited on either bank for future use in forming roads.

Upper Pongakawa Stream.—This work, comprising the cutting of a new channel in the general direction of the old stream, was advanced to a point some 160 chains north of the main road by the end of November, and a suitable place having then been found, dredge was turned and taken back up-stream. As the canal progressed northward the depth of soft peat gradually diminished, sand and grey mud being found much nearer the surface. Although this was harder digging, it was compensated for by affording a more stable foundation for the side spuds of dredge. Completion of canal to this point caused a drop in water-level of 5 ft. at the main road, and when the dredge later returned up-stream and dredged portion between erection-site and main road the water dropped a further 2 ft. In January, 1924, the plant was again headed down-stream, and by the end of the period had completed some 12 chains of widening and deepening.

Lower Pongakawa Stream.—Steady progress was maintained on this work, and by the middle of February a channel carrying 8 ft. of water at low tide had been completed up to the turning-point of top dredge. The plant then backed down-stream, filling up low parts of banks *en route*.

Leasehold Block East of Pongakawa Stream.—In March, 1924, a start was made excavating a canal through this property, and by the end of the period 2½ chains were completed. A dam will be erected behind dredge to do away with tidal influence, and with this held progress should be considerably augmented.

Dredges.—Three dredges—No. 5 Priestman and Nos. 25 and 26 American Steel—have been kept working continuously during the period.

No. 5 Priestman dredge was employed on the Wharere Canal, which it has now practically completed. During September and October the plant was idle while pontoon was being repaired,