

POUKAWA DRAINAGE AREA (13,567 ACRES), HAWKE'S BAY COUNTY.

Dredge-work by No. 5 Priestman dredge was continued from the commencement of the period under review until November, 1930, with a total of 71,648 cubic yards excavated. The channel, 30 ft. wide and 7 ft. deep, from the southern end of Lake Poukawa through the Crown land was dredged for a further 67 chains. In places fairly heavy timber was encountered, and trouble was also experienced with soft peat, which filled up the cut at times, necessitating the digging of hand drains outside the spoil-bank.

The dredge also deepened and improved 124 chains of canals constructed in the previous year. The dredging programme having been completed, the dredge was laid up in November, 1930.

The dredging-work on the main outlet channel let by contract to Dredgers Ltd. was continued with the drag-line, and a total yardage of 20,963 excavated during the year, covering a distance of 83 chains.

Some 139 chains of hand drains were dug, and other minor works comprised erection stock-bridge to severances, small outlet drain through stop-banks, excavating drinking-places for stock, and erecting 50 chains of fences. The work of opening the old Poukawa Stream for some 30 chains was also carried out.

The temporary timber control-gate installed to control the water-level in Lake Poukawa and provide the necessary depth of water to operate the floating dredge suddenly collapsed early in December. Emergency measures were taken, and the dam was blocked again within two days, the water being by-passed through the old stream channel. Comparatively small damage was done to the lower lands lying down-stream. Preparations for the proposed permanent structure had therefore to be hurried forward, and plans were prepared for a double-skinned dam of steel-sheet piling with two waterways, provision being made to absorb the shock of the overflow by means of a water-filled concrete drop. The rows of sheet piling are to be driven through and sealed. The construction is expected to commence early in April, as the steel-sheet piling will not be landed until then.

The February earthquake was very severe in this particular area, and the hills on the route from the lake were badly shattered. The bottom of the dredge-cut through the swamp portion rose generally several feet, and slips occurred in several places. The damages sustained in the dredged channels can be rectified next summer.

The level of the lake at the end of the period was 77.6 ft. above datum, the average level prior to drainage having been 83 ft.

The expenditure for the year totalled £4,502 6s. 9d., of which day labour absorbed £1,242 2s. 4d., and six contracts totalled £2,068 19s. 3d.

I have, &c.,

R. G. MACMORRAN,

Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.