## 1942. NEW ZEALAND.

## DEPARTMENT OF LANDS AND SURVEY.

## DRAINAGE. RANGITAIKI LAND

REPORT FOR THE YEAR ENDED 31st MARCH, 1942.

Presented to both Houses of the General Assembly in pursuance of Section 10 of the Rangitaiki Land Drainage Act, 1910.

SIR,-

Department of Lands and Survey, Wellington, 1st July, 1942.

I have the honour to submit herewith the report of the Chief Drainage Engineer on drainage operations on the Rangitaiki Plains for the year ended 31st March, 1942, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

I have, &c., R. G. Macmorran,

The Hon. the Minister of Lands.

Under-Secretary for Lands.

## REPORT OF THE CHIEF DRAINAGE ENGINEER.

SIR,-

In accordance with the provisions of the Rangitaiki Land Drainage Act, 1910, I have the honour to submit the report of the works carried out on the Rangitaiki Plains during the year ended 31st March, 1942.

The rainfall recorded at Thornton was 42.74 in. for the year 1941 and 33.48 in. for the year ended 31st March, 1942. Rain fell on eighty-eight days. The wettest month was January, 1941, with a fall of 7.26 in., and the driest month February with a fall of 0.58 in. The average rainfall at Thornton over a period of twenty-four years has been 51.36 in.

Dry summer weather affected production, and the farm output for the year, though satisfactory, has been below that of last year, which was a record for the district. The Rangitaiki Plains Dairy Co., which handles a large portion of the dairy-produce of the district, manufactured 3,877 tons of butter and 864.5 tons of cheese between the 1st April, 1941, and 31st March, 1942. During the previous twelve months the output of butter was 5,064.5 tons. The manufacture of cheese was commenced in September last in a factory expeditiously established in buildings formerly used for flaxmilling situated on the west bank of the Whakatane River, near Whakatane.

The Department maintains 158 miles of drains and canals in the Rangitaiki district, and this work requires a considerably augmented labour force during the fall of each year. Labour shortage due to war demands on man-power has increased the difficulty in meeting this seasonal demand, and though it has not been possible to carry out the full programme of work, the drainage system has been efficiently maintained throughout the year.

In addition to seasonal cleaning of drains by manual labour, considerable improvement of large drains, canals, and stop-banks has been effected by mechanical excavators during the past four years. Details of the work carried out during the year under review by the excavating-plant are given below :--

No. 17 Monighan Drag-line Excavator completed the deepening of the Waioho Stream, above Titoki Road Bridge, in April, 1941, and after crossing the stream on a temporary bridge travelled under its own power to Whakatane West Railway-station, where the machine was dismantled, loaded on trucks, and railed to Otakeri Station. From here, after reassembly and repairs, the machine travelled across country, crossing the Omeheu drain by means of a temporary bridge on the 4th September. Working down-stream on the left bank of the Omeheu Canal, the machine reconditioned 126 chains of canal between the railway and Gows Road. This together with 9 chains of the Waioho Stream completed, makes the output for this machine 43,500 cubic yards for the year.

No. 30 Bay City Drag-line Excavator.—After completing the stop-bank on the right bank of the Tarawera River between the railway and Factory Road, this machine was moved to the Thornton Depot for overhaul in April, 1941. It resumed work on the Tarawera River in June and, working on the right bank down-stream from the railway, has reconstructed the stop-bank for a distance of 109 chains.

The year's output for this machine was approximately 36,700 cubic yards.

No. 31 Ruston Bucyrus Drag-line Excavator.—During the period April to October, this machine completed 27 chains of heavy stop-bank reconstruction on the right bank of the Tarawera River, terminating in high country 100 chains above the Factory Road. The plant was then railed from Otakeri Station to the Hauraki Plains. At Rangitaiki this machine excavated and placed 22,400 cubic yards of material.