## 1930. NEW ZEALAND.

## DEPARTMENT OF LANDS AND SURVEY.

## RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1930, TOGETHER WITH STATEMENT OF ACCOUNTS.

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, 1930.

I have the honour to submit herewith the report upon drainage operations in the Rangitaiki Plains for the year ended 31st March, 1930, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

The accompanying statement of accounts and balance-sheet shows the financial transactions for the year, and the position of the account as at the 31st March last. A plan of the drainage district is attached.

I have, &c.,
J. B. Thompson,
Under-Secretary for Lands.

The Hon. E. A. Ransom, Minister of Lands.

## REPORT OF CHIEF DRAINAGE ENGINEER.

Sir,-

In accordance with the provisions of the Rangitaiki Land Drainage Act, 1910, I beg to submit report on these operations for the financial year ending 31st March, 1930.

No major construction works were undertaken during the year under review, and the work carried out consisted almost entirely of maintenance and improvement of existing works. Maintenance dredging was continued to completion by the two plants engaged on similar work during the preceding period, and the plants were then laid up in order to be available when it is necessary to undertake future canal-maintenance.

Evidence was given during the sittings of the Rangitaiki Commission in 1925, that the average annual maintenance of works would be £7,000, and this figure has proved to be an accurate forecast. On works of this nature the hand-dug drains require maintaining each year, whilst the machine-dug drains require redredging at varied intervals, according to the growth of acquatic weeds and the accumulation of silt. As a result the annual expenditure under this heading must vary each financial year, but every endeavour is being made to stabilize the rates struck for this purpose.

Excellent weather conditions obtained practically throughout the period, with an abundance of spring and summer growth. The rainfall in the spring and summer months was ample, and, although followed by a fairly dry autumn, the pastures on the lighter and higher lands were not seriously affected, as they were under the drier conditions of the previous two summers. The cultivation of paspalum on this class of land is placing it in a better position to withstand a prolonged dry spell than when growing English grasses only.

Serious flooding on the Plains was confined to a limited area in the White Pine Bush district, which suffered from an overflow of the Whakatane River during February. In this instance, fortunately, the heavy rains were of short duration and confined to the watershed of the Whakatane River. The result served to show that the danger of a severe summer flood from the rivers running through the Rangitaiki Plains is always present. The consequences attending such a flood will, of course, be intensified as the area becomes more closely cultivated and farmed.

Another substantial increase in the yearly output of the Rangitaiki Plains Dairy Co. is recorded. The total amount of butter manufactured during the season was  $2,273\frac{1}{2}$  tons, an increase of  $339\frac{1}{2}$  tons over the total for the previous season, and just over three times the total manufactured during 1925. The Tarawera Cheese-factory manufactured 230 tons, last year's total being 243 tons.

The remarkably rapid increase of output of the principal dairy company operating in the district is a sure indication of the progress of permanent settlement and cultivation on the area. Credit also must be given to the progressive methods adopted by the older-established settlers on the area in increasing the production of their herds, both by improving the quality of their stock and by scientific treatment of the pastures. Already some of the individual herd returns and returns per acre compare very favourably with those of much older established dairying districts. There are some exceptionally