1931. NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1931, 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, 1931.

I have the honour to submit herewith the report upon drainage operations in the Rangitaiki Plains for the year ended 31st March, 1931, 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.

I have, &c.,

W. ROBERTSON,

Under-Secretary for Lands.

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

REPORT OF CHIEF DRAINAGE ENGINEER.

SIR,-

As provided by the Rangitaiki Land Drainage Act, 1910, I submit report on these works for

the year ending 31st March, 1931.

The work consisted mainly of maintenance and minor improvements to existing works, carried out by hand labour. One dredge only was in commission for a short period, constructing a length of stop-banking for which a special grant was available. It will be necessary to have a dredge operating during the coming year on canal-maintenance, and a Bay City tractor drag-line will be transferred from another work.

A good spring was followed by an exceptionally dry summer, and by the middle of the dairyingseason areas of the higher and lighter lands were in a parched condition, which affected considerably the cream returns for the season. It is noticeable in certain watersheds that, as the country dries out, the run-off is rapidly decreasing. It will therefore not be so necessary to maintain the outlets serving these areas at the same high state of efficiency as in the past.

During the year no serious flooding occurred in the area, and the rainfall was sufficient to cause

only very small rises in the river water-levels.

Some trouble was experienced with the Tarawera River outlet. Six years ago this outlet was confined through the sandhills with stone groynes. Following a long spell of westerly weather the sand banked outside these groynes, and caused the outlet to wander some chains along the coast, with a consequent rising of the water-level. This was remedied by extending the stone groyne seaward. The Rangitaiki River mouth has been in a similar state for several years, but lately the position has become aggravated by the widening of the channel inside and through the sandhills increasing the loss of fall. The channel at this point was narrowed by placing and anchoring willows in order to give a lead to the water and encourage scouring through the sandspit across the original outlet. This scour has been taking place gradually since the placing of the willows, and it is hoped to utilize a dredge to complete the work early in the coming year.

Despite the unfavourable season experienced on portions of the area, another increase is recorded in the output of the Rangitaiki Plains Dairy Factory. The total amount of butter manufactured was 2,525 tons, an increase of 252 tons over last year's total. The Tarawera Cheese-factory manufactured

232 tons, against last year's total of 230 tons.

Development work received somewhat of a setback owing to the low prices received for dairyproduce, and in the main the settlers contented themselves with maintenance of established pastures. It is pleasing to note that in very few instances is the top-dressing—so essential to these pastures being neglected. There is also a continued improvement in the quality of stock, and in many cases

this has reached a very high standard.

Owing to the very low return for flax-fibre, development work on several of the flax areas has been practically at a standstill, the companies contenting themselves with maintaining the present cultivation. The past season proved an excellent one for the various areas of low-lying country, and generally a vast improvement in condition is apparent. Several areas are being served by electrically driven flood-pumps, and it has been possible to take advantage of the season to thoroughly dry out the soil. This should be successful in placing such areas in a good position to stand a wet season without serious detriment to the pastures.