

SESSION II.
1921.
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY:

SWAMP DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1921, TOGETHER WITH STATEMENT OF ACCOUNTS.

Presented to both Houses of the General Assembly pursuant to Section 13 of the Swamp Drainage Act, 1915.

SIR,—

Department of Lands and Survey, Wellington, 10th June, 1921.

In pursuance of section 13 of the Swamp Drainage Act, 1915, I forward herewith the report of the Chief Drainage Engineer upon the operations carried out under the above Act for the past year, together with a statement of cash transactions and balance-sheet.

I have, &c.,

The Hon. D. H. Guthrie, Minister of Lands.

T. N. BRODRICK, Under-Secretary.

REPORT BY CHIEF DRAINAGE ENGINEER.

SIR,—

I have the honour to submit annual reports on the areas proclaimed under the Swamp Drainage Act, 1915.

KAITAIA DRAINAGE AREA (39,665 ACRES).

In presenting the above report it is noteworthy to record the progress which the district has made since the inception of work in and around the swamp. Areas which at one period were subject to flood have now become town allotments, others which were lagoons for several months during the year have now become pasture. Large areas have been subdivided into small dairy farms, and the aspect everywhere is one of prosperity and progress. However, the rate of progress of the district is wrapt up in the rapid prosecution of the work, as many areas are at present inundated which with a little extra machinery could be quickly and efficiently reclaimed. In several districts where drains were constructed early in the work considerable subsidence has taken place, and with uncontrolled floods breaking over the effect of the work seems particularly minimized and settlers feel little benefit.

Controlled as the district is by rainfall, it is interesting to note the following figures for last year: The greatest fall occurred during May and August, when the fall was 8.02 in. each month. The heaviest fall on record since the work started was from the 9th to the 13th May, when 5½ in. fell. On this occasion a flood of exceptional severity was experienced, breaking over the Kaitaia banks and inundating low-lying areas. However, the most noticeable fact was the quickness with which the flood-waters disappeared, although in the lake districts it was several weeks before normal conditions were established. The total rainfall for the year was 53.11 in., compared with 31.71 in. for previous year.

Although the weather conditions generally have not favoured work for many months of the year, good work was carried out during the summer months. The operations have been pushed on as far as it is possible, the present position being that until the machine work is pushed ahead very little hard work can be put under way.

Kaitaia River Spillway.—Owing to the fact that machinery for the excavation of the river spillway via Whangatane and Kareponia was not in sight, and that the districts around the lake were receiving too much water impounded by floods, it was considered advisable to open up the spillway to half-depth by hand, and take a portion of the flood-waters through the old river-channel. The diversion cuttings made the previous year were deepened, and the lower end through the swamp was taken out 30 ft. wide by means of barrows. Some twelve scoop teams were employed in the heavy