## 1926. NEW ZEALAND.

### DEPARTMENT OF LANDS AND SURVEY.

# SWAMP DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1926, 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, 28th June, 1926.

In pursuance of section 13 of the Swamp Drainage Act, 1915, I have the honour to forward the report of the Chief Drainage Engineer covering operations on lands proclaimed under the Swamp Drainage Act and amendments.

The spoil dealt with comprised over 520,000 cubic yards, including a great deal of rock. The various machines have naturally been subject to severe wear-and-tear, but have been maintained in good working-order.

Dredging-work in the Kaitaia area will probably be completed at an early date, while the Waihi scheme has now been practically completed.

Illustrative pla s are also attached.

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

The Hon. A. D. McLeod, Minister of Lands.

### REPORT BY CHIEF DRAINAGE ENGINEER.

SIR.-

I have the honour to submit my annual report on the areas proclaimed under the Swamp Drainage Act, 1915, and amendments.

### Kaitaia Drainage Area (61,430 Acres), Mongonui County.

The principal works carried out during the year have been the improving of the Awanui River by dredging and scooping, excavation of the Whangatane spillway, maintenance and improvement of existing drains, and construction of new outlets.

Rainfall records have been kept at Kaitaia, and readings taken daily showing water-level at different points in the Awanui River. The total rainfall for the year was 57.90 in., the wettest month being May, with 10.43 in., and the driest February, with 0.88 in. Rain fell on 147 days. The highest water-level recorded in the Awanui River at Foster's bridge was 71.2 in., and the lowest 53.8 in.; at the Church Road bridge the highest reading was 80-1 in, and the lowest 65-7 in. Rainfall records obtained from Victoria Valley show that the rainfall generally is greater in the higher portions of the area, as was to be expected; but no complete records of rainfall are available for the watershed other than at Kaitaia. Graphs are attached showing rainfall and river gauge-readings.

No severe floods were experienced this year. The river overflowed its banks at different points on several occasions, but the low-lying country was not covered to the same extent as in previous years. Even distribution of the rainfall, and the fact that no large amount fell within short periods, allowed the channels to cope with flood-waters, while the unwatering and drying-out of the Tangonge basin provided storage for a large volume of flood-water.