## Session II. 1923. NEW ZEALAND.

### DEPARTMENT OF LANDS AND SURVEY.

# DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1923, TOGETHER WITH STATEMENT OF ACCOUNTS.

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

Department of Lands and Survey, Wellington, 5th June, 1923. SIR.--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. possible, operations are being vigorously prosecuted, and the use of new and improved dredges has materially increased the work of drainage and reclamation. Three plans showing operations are attached.

> I have, &c., J. B. THOMPSON, Under-Secretary.

The Hon. D. H. Guthrie, 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. No new areas have been proclaimed during the year, but the Act was amended to provide for the expenditure of moneys out of the Swamp Land Drainage Account, required for the drainage, reclamation, roading, or otherwise rendering fit for settlement of any area of Crown land or national-endowment land which is not comprised within a drainage area. This amendment is a valuable one, as it saves the necessity for proclamation of small areas, and it has been availed of in one instance, report on which will be found herein.

### KAITAIA DRAINAGE AREA (39,665 ACRES), MONGONUI COUNTY.

The principal works carried out during the year have been the improvement of the Awanui River channel, excavation of the Whangatane spillway to provide an overflow channel for flood-waters, and enlarging of the Waihoe channel to provide an outlet for Lake Tangonge and Pukepoto watershed into the Awanui River. Dredging has been steadily carried on throughout the year on each of these Rainfall records have been kept at the Kaitaia office, and the heights reached by floods at various points recorded in terms of a datum to which sea-level and all levels throughout the area have been reduced. The total rainfall for the year was 44.81 in., the highest month's fall being in October (7.46 in.) and the lowest in January (2.02 in.).

The following are some of the details of the records as obtained during the past few years:—

	Year.		Rain <b>f</b> all.	Wettest Month and Fall.	Driest Month and Fall.
1918–19 1919–20 1920–21 1921–22 1922–23		••	31·71 in. 53·11 in. 49·42 in.	July, 1919—7·37 in	Aug., 1918—1·39 in. Dec., 1919—0·62 in. Mar., 1921—1·13 in. Jan., 1922—2·24 in. Jan., 1923—2·02 in.

From the above records the average rainfall for the past five years is 45.27 in., consequently last year's fall was just about the average.