$\begin{array}{ccc} & 1924. \\ \text{N E W} & \text{Z E A L A N D}. \end{array}$

DEPARTMENT OF LANDS AND SURVEY.

DRAINAGE OPERATIONS IN HAURAKI PLAINS.

REPORT FOR THE YEAR ENDED 31st MARCH, 1924, TOGETHER WITH STATEMENT OF ACCOUNTS.

Presented to both Houses of the General Assembly pursuant to Section 10 of the Hauraki Plains Act, 1908.

Sir,— Department of Lands and Survey, Wellington, 5th August, 1924.

I have the honour to present herewith the report of the Chief Drainage Engineer

I have the honour to present herewith the report of the Chief Drainage Engineer on operations carried out during the past year on the Hauraki Plains in accordance with the provisions of the Hauraki Plains Act, 1908.

The wisdom of having provided up-to-date excavating machinery is increasingly noticeable, as this year's output by machines shows a substantial increase, accompanied by a reduction in cost of about 1d. per cubic yard.

I have, &c.,

J. B. Thompson,

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

Under-Secretary for Lands.

REPORT OF CHIEF DRAINAGE ENGINEER.

Sir,-

I have the honour to submit herewith the sixteenth annual report on the progress of the reclamation, drainage, and general development works carried out on the Hauraki Plains. The report covers the work done during the year ending 31st March, 1924.

The progress made with the works has been satisfactory, but an exceptionally wet winter, followed by a dry summer, has been the cause of somewhat unfavourable conditions for the settlers. Alluvial soil after becoming saturated and pugged during the winter was baked hard during the summer, with the result that returns have been below expectations. These conditions emphasize the need for more field drainage by lateral ditches or tile drains to quickly convey the water to the outlets. The peat land was not affected, and settlers with peat land in pasture experienced a more favourable season.

The output from the factories handling the dairy-products of the plains has been 3,987,200 lb. of butter and 2,517,760 lb. of cheese. The value of stock-sales held at Ngatea, Turua, Waitakaruru, and Patetonga was approximately £26,600, and the amount of cargo carried to and from the Piako River was over 9,300 tons.

The total rainfall at Kerepechi was 52.42 in., and rain fell on 171 days during the year. The following schedule gives particulars of rainfall for the past eight years:—

	Total Rainfall.	Wettest Month, and Fall.	Driest Month, and Fall.
	55·57 in.	Nov., 1916—6·65 in.	Jan., 1917—0.65 in.
	46·41 in.	April, 1917—5.67 in.	Dec., 1917—2·18 in.
	41.02 in.	Oct., 1918—7·47 in.	Feb., 1919—1·34 in.
	34.85 in.	Feb., 1920—6·10 in.	Dec., 1919—0·89 in.
· · · · · · · · · · · · · · · · · · ·	35·93 in.	Sept., 1920—5·10 in.	Feb., 1921—0.72 in.
	46·34 in.	Feb., $1922-6.62$ in.	Nov., 1921—1·34 in.
	33·81 in.	Jan., 1923—4·14 in.	Mar., 1923—1·72 in.
•	52·42 in.		Nov., 1923—1·81 in.
		33.81 in.	33.81 in. Jan., 1923—4.14 in.

The average yearly rainfall for the past eight years was 43.29. Last year's fall was therefore a good deal above the average.