Session II.

1918.

NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY:

SWAMP DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1918, 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, 1st June, 1918.

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 accounts.

I have, &c.,

T. N. Brodrick, Under-Secretary.

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

REPORT BY CHIEF DRAINAGE ENGINEER.

SIR,—

I have the honour to submit annual reports on the three areas proclaimed under the Swamp Drainage Act, 1915. No new areas have been proclaimed during the past year.

Kaitaia Drainage Area (39,665 Acres).

Throughout the early part of the year very little work of any description could be done on account of the excessive rainfall. Floods in quick succession caused all low-lying areas to be inundated for several months, and the districts at Waipakauri and Awanui suffered severely. However, the good effect of the river-clearing done during the preceding year was noticed, particularly around Kaitaia, where the river returned to normal level within a few days after the rain ceased. Taking into account the fact that the entire district has had a record rainfall, the already good results of river-clearing are a foretaste of the ultimate success of the scheme. During October a rain-gauge was installed at Kaitaia, and the total rainfall registered from the 1st November to the 31st March was 15·26 in.

The works have also been handicapped by the inability of obtaining sufficient first-class labour. It is hoped that in the coming year the employment of Jugo-Slavs will materially help to solve this problem.

The works carried out are as follows:—

River Clearing and Snagging.—The entire river from Kaitaia to Awanui, a distance of $15\frac{1}{2}$ miles, has been cleared of logs and stumps, thus enabling a free passage at all times up and down the river. The work was carried out by bullock teams.

River-diversions.—Four cuts were commenced during the year, all of which should be ready to open shortly. Two cuts were carried out by day labour, and up to date 11,350 cubic yards of spoil have been removed. Much wheelbarrow work was necessary owing to the soft and boggy nature of the under clays. One cut is being carried out by contract, and so far 3,347 cubic yards have been shifted. The remaining cut was only started towards the end of the year, but should not take long to finish as it follows an old watercourse for the greater part of its length.

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Pukepoto Drains, Waihoe Lake Outlet.—Throughout the winter the lake kept at unprecedented high levels, with flood-waters from the Pukepoto watershed and overflow from the Kaitaia River. The old outlet of 6 ft. was inadequate to cope with the flow, and this has been widened to 14 ft. Not only will this allow the Pukepoto waters to get away quickly, but it will also allow the lake to become a storage reservoir for floods on the Kaitaia River, preventing floods reaching Awanui in too