

1935.  
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

# RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1935, TOGETHER WITH STATEMENTS OF ACCOUNTS.

*Presented to both Houses of the General Assembly in pursuance of Section 10 of the Rangitaiki Land Drainage Act, 1910.*

SIR,—

Department of Lands and Survey, Wellington, 1st July, 1935.

I have the honour to submit herewith the report of the Chief Drainage Engineer on drainage operations in the Rangitaiki Plains for the year ended 31st March, 1935, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

I have, &c.,

W. ROBERTSON,

Under-Secretary for Lands.

The Hon. Sir E. A. Ransom, Minister of Lands.

## REPORT OF CHIEF DRAINAGE ENGINEER.

SIR,—

In accordance with the provisions of the Rangitaiki Land Drainage Act, 1910, I have the honour to submit report on the Rangitaiki drainage works for the year ending 31st March, 1935.

The maintenance and improvement of the existing scheme of drainage was carried out in this area. As in the past few years, expenditure was kept as low as was safely possible. A small walking plant was employed on the smaller canals and in deepening low-level hand drains. As previously forecasted, the time is now opportune for the employment of further plant on canal-maintenance to ensure the main outfalls, in particular, from deteriorating beyond the margin of safety.

Additional expenditure on repair work was necessary following fairly severe flooding from the rivers. On this area the scheme of drainage and protection was not designed to provide complete immunity from flooding from the Whakatane and Rangitaiki Rivers. A certain amount of work has been done to lessen overflow, and a considerable amount of work to minimize the effects of overflow in the event of an exceptional flood in the rivers. The success of this work has been clearly demonstrated over the past few years. For various reasons it has been considered that works designed to eliminate overflow cannot be considered as part and parcel of the drainage scheme. In the case of the Whakatane River the remedy is undoubtedly the straightening of the channel at a point outside the drainage area, and the possible effect of this work on the harbour adjoining would have to be very seriously considered. With the Rangitaiki River, experience has shown that the expenditure involved in a complete scheme of stop-banking would be in excess of the benefits to the drainage area. An extension of the channel-improvement works carried out in previous years is a very desirable work and one from which the benefit would bear comparison with the expenditure. This refers particularly to further removal of willows from the channel in order to increase the flood-carrying capacity of the channel.

Daily water-level readings taken on the Tarawera River over the past ten years indicate that the channel is maintaining a satisfactory gradient. The outlet of this river has remained stable during the year. The protection of the east bank stop-bank has been given attention as required, but the raising of this bank where settlement has taken place will require to be taken in hand within the next year or two.

The substantial increase in butterfat-production maintained by the Rangitaiki Plains Dairy Co. over past years was not maintained this year, and the production fell by 10 tons, from 3,703 tons to 3,693 tons. However, the Arawa Dairy Co., which draws part of its supply from the Rangitaiki Plains, manufactured 764 tons, an increase of 146 tons over last year's total. The drought conditions experienced during the early summer no doubt considerably affected the production.

Although steady progress continues to be made with the improvement of the pastures on the settled lands, settlers have, on the whole, contented themselves with maintaining present pastures rather than increasing their grass-areas.

Of the areas held for flax-cultivation, totalling approximately 7,000 acres, one area totalling 1,500 acres was disposed of for grazing-purposes. Milling was commenced on a small area west of the Tarawera River late in the year. On the balance of the areas maintenance work only was carried out.

*Rainfall.*—The rainfall, totalling 54.53 in., was fairly evenly distributed, rain falling on seventy-six days during the year. The wettest month was June, with a fall of 11.08 in., and the driest, December, with a fall of 1.35 in. The average fall for the past seventeen years has been 51.66 in.

*Maintenance.*—The hand drains throughout the area were maintained, and several lengths of dredged canals were cleared of growth by hand and with the Sanderson weed-cutting launch. The flood-gates throughout the area have received periodical attention, and several lengths of stop-bank have been repaired and raised. A wooden flood-gate on Allen's drain was replaced with a 4 ft. barrel flood-gate with a steel door.

*Dredges.*—The light Bay City walking dredge was in commission throughout the period, and was engaged on raising the west bank stop-bank near the Rangitaiki River mouth, Kopeopeo Canal maintenance, and the deepening of several lengths of low-level hand drains. The distance dredged throughout the year was 372 chains, and a total of 25,980 cubic yards of spoil was moved. The Monighan dredge was employed on the Waihi drainage area for a short period.

*Drains in Operation.*—The total length of drains shows a small increase over last year, and is now as follows :—

							Miles ch.
Dredge canals	..	..	..	..	..	..	68 28
Main outfall drains	..	..	..	..	..	..	115 4
Road drains	..	..	..	..	..	..	30 46

Of these, 105 miles 20 chains are maintained annually by the Department. The growth was removed by hand or with the Sanderson weed-cutting launch from 18 miles of machine-excavated canal.

*Plant and Machinery.*—This consists of two Priestman dredges, one Bay City drag-line, one Monighan, one Priestman pontoon, two coal-punts, an oil-launch, and two small boats and punts.

*Summary of Work done :—*

					Miles ch.	Cubic yd.
Drains deepened by hand	..	..	..	..	1 15	2,850
Drains cleaned by hand	..	..	..	..	98 20	..
Canals cleaned by hand	..	..	..	..	14 10	..
Canals cleaned by weed-cutter	..	..	..	..	11 30	..
Spoil dredged	..	..	..	..	4 52	25,980
Stop-banks repaired and raised by hand	..	..	..	..	1 35	7,350
Flood-gates erected	..	..	..	..	One.	..

*Drainage Rates.*—Rates struck for 1934–35 totalled £13,558 19s., and £5,421 1s. 7d. was collected.

I have, &c.,

R. G. MACMORRAN,

The Under-Secretary for Lands, Wellington.

Chief Drainage Engineer.

## RANGITAIKI LAND DRAINAGE SCHEME.

## RATE ACCOUNT AS AT 31ST MARCH, 1935.

<i>Dr.</i>	Capital.		Maintenance.	<i>Cr.</i>	Capital.		Maintenance.
	£	s. d.			£	s. d.	
To Interest on capital cost ..	13,261	17 6		By Balance as at 1st April, 1934	2,503	0 7	4,250 15 10
Less capitalized ..	5,261	17 6		Rates levied ..	8,598	17 8	4,960 1 4
				Penalty ..	667	2 4	381 19 9
	8,000	0 0					
Cost of maintenance ..			5,707 7 2				
Remissions ..	86	13 2	43 8 9				
Balance as at 31st March, 1935	3,682	7 5	3,842 1 0				
	£11,769	0 7	£9,592 16 11		£11,769	0 7	£9,592 16 11

## REVENUE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1935.

<i>Dr.</i>	£	s. d.	<i>Cr.</i>	£	s. d.
To Interest on Public Works Fund capital ..	20,788	14 4	By Accrued rent ..	141	10 6
Loss of plant, &c ..	549	0 7	Thirds ..	3	13 6
			Capitalized interest: Section 12, Finance Act, 1927 (No. 2) ..	5,261	17 6
			Interest recoverable by rates ..	8,000	0 0
			Balance, transferred to Drainage Works Account	7,930	13 5
	£21,337	14 11		£21,337	14 11

## RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1935.

<i>Receipts.</i>	Public Works Fund.	Consolidated Fund.	<i>Payments.</i>	Public Works Fund.	Consolidated Fund.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
To Rents ..	98	2 4	By Maintenance of completed works ..	5,177	12 1
Rates ..	4,803	16 2	Plant ..	208	16 0
Thirds ..	3	13 6	Refund of rates ..	32	18 6
Sundries ..	421	2 6	Transfer net receipts—		
Plant ..	27	10 0	To Treasury Adjustment Account ..	5,293	16 0
Transfer Expenditure—			To Public Works Fund ..	27	10 0
To Treasury Adjustment Account ..	5,177	12 1			
To Public Works Fund ..	208	16 0			
	£236	6 0		£236	6 0
	£10,504	6 7		£10,504	6 7

## BALANCE-SHEET AS AT 31ST MARCH, 1935.

<i>Liabilities.</i>	£	s. d.	<i>Assets.</i>	£	s. d.
Public Works Fund ..	489,285	0 11	Drainage-works ..		
Treasury Adjustment Account ..	211,332	10 9	Recoverable—		
Unpaid purchase-money for land taken ..	210	1 1	Capital expenditure ..	205,000	0 0
Sundry creditors—			Capitalized interest: Section 12, Finance Act, 1927 (No. 2) ..	65,499	7 6
Departmental ..	428	7 9		270,499	7 6
Miscellaneous ..	437	10 0	Not recoverable: Capital expenditure and capitalized interest ..	409,105	1 8
	865	17 9		679,604	9 2
Rate accounts—			Plant and machinery ..	8,257	4 6
Capital ..	3,682	7 5	Buildings ..	937	9 6
Maintenance ..	3,842	1 0	Loose tools ..	205	5 4
	7,524	8 5	Sundry goods ..	267	14 0
Suspense Account ..	584	6 8	Fuel ..	24	10 0
Writings-off in Suspense ..	567	3 1	Cash in transit ..	673	3 6
Payments in advance—			Sundry debtors—		
Rates ..	4	3 1	Rates capital ..	17,502	2 8
Miscellaneous ..	0	4 0	Rates maintenance ..	11,949	8 4
	4	7 1	Law-costs ..	303	15 3
			Rents ..	17	11 6
			Miscellaneous ..	63	18 11
				29,836	16 8
	£720,373	15 9	Losses in suspense ..	567	3 1
				£720,373	15 9

W. ROBERTSON, Under-Secretary for Lands.

WM. E. SHAW, Accountant.

I hereby certify that the Rate and Revenue Accounts and Balance-sheet have been duly examined and compared with the relative books and documents submitted for audit, and correctly state the position as disclosed thereby, subject to the comment that the accounts of the Chief Drainage Engineer, Auckland, the audit of which has not yet been completed by the local Audit Inspector, are in agreement with Head Office books.—J. H. FOWLER, Deputy Controller and Auditor-General.

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