

1933.  
NEW ZEALAND.

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DEPARTMENT OF LANDS AND SURVEY.

# RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1933, TOGETHER WITH STATEMENTS OF ACCOUNTS.

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

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SIR,—

Department of Lands and Survey, Wellington, 1st August, 1933.

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, 1933, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

I have, &c.,

W. ROBERTSON,

Under-Secretary for Lands.

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

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## REPORT OF CHIEF DRAINAGE ENGINEER.

SIR,—

I beg to submit report on the Rangitaiki drainage works for the year ending 31st March, 1933, in accordance with the provisions of the Rangitaiki Land Drainage Act, 1910.

During the year maintenance work only was carried out in this area. This embraced the keeping in order of all hand drains, repair and maintenance of flood-gates and stop-banks, and maintenance of canals with light walking-plant and floating weed-cutter. It is proposed to utilize the walking-plant to work progressively throughout the area, removing accumulated silt and growth from the main outfalls. This plant is most suitable for this class of work, and, with the occasional use of a larger plant, it is hoped to maintain all outfalls in reasonable order at a low annual cost.

No flooding was experienced during the year under review, although both the Rangitaiki and Whakatane Rivers were at a high level on two occasions. The mouth of the Rangitaiki River through the sandspit has moved steadily eastwards since it was straightened last year. In the absence of any permanent control works it will be again necessary to cut it through on the straight as soon as the water-level begins to affect the country draining this way. Some two years ago relief workers were employed ring-barking willows on the length of river from Te Teko northwards, and large numbers were destroyed. This work should again be put in hand when funds can be made available. The Tarawera River mouth has remained stable since the placing of an extension to the stone groynes, and very little trouble has been experienced in the channel proper of this once troublesome river.

Minor repair to the stop-banks is desirable at a few points, and this will be carried out in the coming year. Daily water-level readings taken over the past eight years indicate that the bed has remained stable, with no tendency to raise its level.

The seasons experienced over the past few years have been very favourable to the improvement of the partly developed areas on the Rangitaiki Plains, and this has proceeded steadily despite the low prices ruling for produce. A vast improvement is noticeable in the areas surrounding the Kopeopeo Canal, where areas previously waterlogged are now coming into good pasture, mainly owing to the benefits received from the new outlet and flood-gate installations. There is still a considerable area in the Plains which is producing very little, or not to capacity. Part of the large increase in production for the year can be attributed to the improved quality of stock and farming methods, coupled with the good season experienced.

The Rangitaiki Plains Dairy Co. manufactured for the year 3,366 tons of butter, an increase of 541 tons over last year's production. The Arawa Dairy Co., which draws a portion of its supplies from the Plains, manufactured 450 tons of butter.

Work on the low-lying areas held for flax-cultivation has consisted almost entirely in the maintenance of present cultivation. There has been noticeable improvement in these areas over the past two years. It is possible that certain of these areas will be quite suitable for dairying or grazing purposes, failing an early return to payable market prices for hemp.

*Rainfall.*—The average rainfall for the past fifteen years has been 51.78 in., and the total for the year under review 45.95 in., rain falling on fifty-eight days. February was the wettest month, with a fall of 8.40 in., and November the driest, with a fall of 0.76 in.

*Maintenance.*—The hand drains throughout the area were regularly maintained, a good portion of this work being done by competitive contract. Improvement and deepening work was carried out on several lengths of drains. A considerable length of dredged canal was cleaned of growth by hand labour, the aim with certain lengths of canal being to maintain a full-depth waterway in the middle of the canal to take the normal flow and clear the balance to take care of the flood flow. The Sanderson weed-cutting launch was used to remove the growth from the waterway of several miles of canal.

One new length of drain was constructed on the west bank of the Te Rahu Canal to link up the existing drains with a flood-gate placed during the previous year. All flood-gates and stop-banks in the area were repaired and maintained as required.

*Dredges.*—The only dredge in operation during the year was the light Bay City walker, which commenced late in the preceding year cleaning and removing silt from the Te Rahu Canal, and rebuilding a length of stop-bank over a section of peat country where considerable subsidence had taken place. This plant has proved admirably suited for a large range of maintenance work on this area at a low cost for wages and fuel. Work was completed on the Te Rahu Canal during the year, and plant was moved to similar work on the Eastern Drain. The distance dredged during the year was 333 chains, some 34,579 cubic yards of spoil being removed, of which 15,625 cubic yards was deposited and graded by plant to form a stop-bank.

One of the Priestman dredges was put into commission by the Public Works Department.

*Drains in Operation.*—One new drain, 39 chains in length, was constructed during the year. A length of 194 chains of drain, constructed in connection with the development of the Onepu Block, was handed over for maintenance purposes. The total length of drains in operation is as follows: Dredge canals, 68 miles 28 chains; main outlet drains, 112 miles 22 chains; road drains, 30 miles 46 chains. Of these, 102½ miles of hand drains are maintained annually by the Department. The canals are machine maintained periodically as required, the growth being removed as becomes necessary from a length of 31 miles of canal either by hand or with the Sanderson Weed-cutter.

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

*Summary of work done :—*

	Miles	ch.	Cubic yd.
Drains constructed .. .. .	..	0 39	2,045
Drains deepened and widened .. .. .	..	3 74	9,172
Drains cleaned .. .. .	..	98 10	..
Drains cleaned by hand .. .. .	..	12 42	..
Canals cleaned by weed-cutter .. .. .	..	11 30	..
Spoil dredged .. .. .	..	4 13	34,579

*Rates.*—Rates struck for 1932-33 totalled £11,393 7s. 11d., entailing some 822 rate demands. £7,070 9s. 5d. was collected.

I have, &c.,

R. G. MACMORRAN,

Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

## RANGITAIKI LAND DRAINAGE ACCOUNT.

## RATE ACCOUNT AS AT 31ST MARCH, 1933.

<i>Dr.</i>	Capital.		Maintenance.		<i>Cr.</i>	Capital.		Maintenance.	
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
To Interest on capital cost ..	12,632	1 9			By Balance .. ..	1,141	6 4	4,086	3 2
Less capitalized .. ..	6,632	1 9			Rates levied .. ..	6,381	14 0	4,957	17 9
					Penalty .. ..	329	17 4	241	14 1
Cost of maintenance .. ..			6,000	0 0					
Remissions .. ..			5,094	8 6					
Balance .. ..			199	2 10					
			3,992	3 8					
			£7,852	17 8				£7,852	17 8
								£9,285	15 0

## REVENUE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1933.

<i>Dr.</i>	£		s. d.		<i>Cr.</i>	£		s. d.	
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
To Loss of plant .. ..			3	1 0	By Accrued rent .. ..			159	3 8
Interest on Public Works Fund capital ..	22,014	1 9			Hire of plant .. ..			37	13 9
					Forfeited deposits .. ..			5	0 0
					Sale of publications .. ..			0	7 0
					"Thirds" .. ..			11	18 8
					Capitalized interest under section 12, Finance Act, 1927 (No. 2) .. ..			6,632	1 9
					Interest recoverable by rates .. ..			6,000	0 0
					Balance, transferred to Drainage Works Account .. ..			9,170	17 11
			£22,017	2 9				£22,017	2 9

## RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1933.

<i>Receipts.</i>	Public Works Fund.		Consolidated Fund.		<i>Payments.</i>	Public Works Fund.		Consolidated Fund.	
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
To Balance .. ..	10,797	5 0			By Maintenance of completed works .. ..			3,895	3 7
Rents .. ..			149	3 10	Refund of rates .. ..			24	16 0
Rates .. ..			7,086	10 9	Transfer receipts to Treasury .. ..				
"Thirds" .. ..			11	18 8	Adjustment Account .. ..			7,394	4 9
Sundries .. ..			163	8 9	Transfer of balance to Public Works Fund .. ..	10,798	19 3		
Rates paid in advance .. ..			7	18 9					
Goods .. ..	1	14 3							
Transfer expenditure to Treasury .. ..									
Adjustment Account .. ..			3,895	3 7					
			£10,798	19 3				£11,314	4 4

## BALANCE-SHEET AS AT 31ST MARCH, 1933.

<i>Liabilities.</i>	£		s. d.		<i>Assets.</i>	£		s. d.	
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
Public Works Fund .. ..	489,201	0 9	Drainage works—						
Treasury Adjustment Account .. ..	183,200	7 6	Recoverable—						
Unpaid purchase-money for land taken .. ..			Capital expenditure .. ..	205,000	0 0				
Sundry creditors—			Capitalized interest: Section 12, Finance Act, 1927 (No. 2) .. ..	54,273	16 2				
Departmental .. ..	15	3 8							
Miscellaneous .. ..	229	1 4							
			244	5 0					
Rate Account—					259,273	16 2			
Capital .. ..	1,635	14 8			Not recoverable—				
Maintenance .. ..	3,992	3 8			Capital expenditure and capitalized interest .. ..	392,190	6 6		
			5,627	18 4				651,464	2 8
Suspense Account .. ..			588	0 8	Investment: Public Debt Redemption Fund .. ..			1,525	16 0
Writings-off in Suspense .. ..			3	11 2	Plant and machinery .. ..			9,679	16 2
Rates paid in advance .. ..			21	6 0	Buildings .. ..			1,052	18 11
					Loose tools .. ..			205	1 2
					Sundry goods .. ..			651	16 8
					Live-stock .. ..			1	1 7
					Fuel .. ..			31	16 9
					Sundry debtors—				
					Rates .. ..	14,246	19 6		
					Law-costs .. ..	180	9 10		
					Rents .. ..	15	19 8		
					Miscellaneous .. ..	36	14 5		
								14,480	3 5
					Stamps on hand .. ..			0	6 0
					Losses in Suspense .. ..			3	11 2
			£679,096	10 6				£679,096	10 6

W. ROBERTSON, Under-Secretary for Lands.  
W. E. SHAW, Accountant.

I hereby certify that the Receipts and Payments, 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.—J. H. FOWLER, Deputy Controller and Auditor-General.

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