

1932.
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1932, TOGETHER WITH STATEMENT 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, 1932.

I have the honour to submit herewith the report upon drainage operations in the Rangitaiki Plains for the year ended 31st March, 1932, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

The accompanying statement of accounts and balance-sheet shows the financial transactions for the year, and the position of the account as at the 31st March last.

I have, &c.,
W. ROBERTSON,
Under-Secretary for Lands.

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

REPORT OF CHIEF DRAINAGE ENGINEER.

SIR,—

I have the honour to submit report on the above works for the year ending 31st March, 1932, as provided by the Rangitaiki Land Drainage Act, 1910.

The year under review witnessed the cessation of capital expenditure on this area. For some years it has been our policy to complete the original programme of works and the many extensions made desirable by the rapid development of the area. In many cases the completion of construction has had to await the necessarily slow process of consolidating and stabilizing the country.

I have elaborated in previous reports the point that the stopping of capital expenditure does not mean that all possible or desirable works for the complete drainage and protection of the area have been undertaken. It is considered that the works as originally planned and undertaken have reached a stage where all future expenditure can equitably come under the heading of maintenance. Any further desirable extensions of the scheme come under the heading of works benefiting isolated areas, and estimated to cost more than it would be equitable to load on to the general rating; or are of such a magnitude that the area could not reasonably hope (in its present stage of development) to pay interest and sinking fund on the outlay.

Recent years have seen the extension of cultivation and development to increased areas. In many cases lower-lying lands have been developed, as such lands have been slower in responding to drainage owing to their position. These areas are proving increasingly valuable when worked in conjunction with the higher lands which almost invariably adjoin them. The development of these areas, in common with the remaining swamp areas on the plains, has been greatly facilitated by the excellent season experienced. The weather during the past few seasons has been all in favour of this class of land. It is safe to assume that land with the porous subsoil this swamp enjoys will not now be seriously affected by a series of wet seasons, provided full drainage facilities are maintained.

No flooding was experienced during the year from the several rivers and streams running through the area. The work being carried out last year at the mouth of the Rangitaiki River was completed, and the river led back to a straight channel.

The Rangitaiki Plains continues to demonstrate its unique suitability for intensive dairy farming, which is reflected in the very creditable increase in the output of butter from the Rangitaiki Plains Dairy Co. The amount of butter manufactured by this company totalled 2,825 tons, an increase of 300 tons on the previous year. The Tarawera Cheese-factory went out of business before the commencement of the season, but a proprietary concern which draws considerable supplies from the plains commenced operations during the year, and although definite figures are not available, its quota would bring the total butter manufactured to over 3,000 tons.

Although this increased output demonstrates that the area is making rapid strides in development, as is only to be expected with a new district, there are still considerable areas of good and medium quality lands on which production has not yet reached the average. Present indications point to the time being not far distant when, without further capital expenditure by the Department, the total manufacture of butter will reach 5,000 tons, giving a return based on present prices of £560,000 from dairy-produce alone.

Development work on the flax areas within the area, aggregating approximately 7,500 acres, has not proceeded vigorously during the year, although present cultivations have been fully maintained. A new flax-mill was erected near the mouth of the Tarawera River, and milling will no doubt be commenced when payable market prices for hemp are obtainable.

Rainfall.—The average rainfall for the past fourteen years has been 52.27 in., with a total for the year under review of 48.24 in., with rain falling on fifty-nine days. July was the wettest month, with a fall of 7.48 in., and November the driest, with a fall of 1.08 in.

Maintenance.—As stated previously, work carried out during the year consisted entirely of maintenance. Following the completion by stages of the programme of construction, the main canals have naturally required very little attention for a period of years, and it has been possible to work well within the estimated total expenditure requirements, which were based on the average for a period of years. It must be remembered, however, that work on these canals, involving the use of heavy machinery, cannot be indefinitely postponed. Deterioration beyond a certain safe point would involve the destruction of the hardly won development of large areas of fertile land. For this reason the position of each canal requires careful study to see that work is not done ahead of actual requirements, and yet is not left until the danger-point is reached. In this connection there has been a tendency, particularly during the past dry seasons, to consider that certain areas of mostly lighter and higher lands have been overdrained. In some cases there appears justification for this claim, but it has to be remembered that these areas were not always as free draining as they are to-day, being in most cases retentive morass requiring deep drainage before water-movement could be installed. In these isolated cases the policy of the Department is to defer machine maintenance of the outlets until they have shallowed to the present normal drainage-level of the country.

The hand drains throughout the area were regularly maintained, deepening and improvement work being carried out over several lengths of drain. In addition, a considerable length of dredged canal was cleared of weed growth by hand labour, a further section of deeper canal being cleared with a Sanderson weed-cutter. Repairs as required were carried out to stop-banks, flood-gates, &c. A new length of stop-bank was built from the spoil dredged from the Waioho Canal to prevent overflow, and the old banks along the stream were raised to prevent the overtopping that occurred last year. An old wooden gate was replaced by a small Calco flood-gate on the Te Rahu Canal, south of the Main Road.

The work commenced last year of removing obstructions in the channel of the Rangitaiki River was carried southwards to McCracken's deviation. Overhanging willows from this section of the river were used to complete the protection of the sand-hills, and also to extend a temporary groyne for scouring a channel through the sand-spit obstructing the mouth of the river.

Dredges.—The only dredge in operation was a small Bay City walker which was transferred from Hauraki Plains works late in the period in order to carry out canal maintenance work. This plant started work on the Te Rahu Canal at the railway and is working northwards. The opportunity will be taken to raise a low section of the west bank stop-bank south of the Main Road, which serves to protect the main body of the swamp from the Whakatane River floods. During the short period worked, a distance of 30 chains was completed, and 2,640 cubic yards of spoil removed.

Not any of the three original dredges were in commission during the year, but a start was made late in the period to overhaul the pontoons of the floating plant.

Bridges, Flood-gates, &c.—No new bridges were erected during the year. The policy of the Department has been to hand over all access bridges to the individual settlers for maintenance and renewal. One single-barrel flood-gate was erected.

Drains in Operation.—No new lengths of drain or canal were constructed during the year, and the total length in operation is as follows: Dredge canals, 68 miles 28 chains; main outlet drains, 109 miles 29 chains; road-drains, 30 miles 46 chains. Of these, 99½ miles of hand drains are maintained annually by the Department, the canals being maintained periodically as required.

Plant and Machinery.—This consists of two Priestman dredges, one Bay City dipper, one Bay City drag-line, one Priestman pontoon, two coal-punts, one oil-launch, and three small boats and punts. The motor-lorry was sold, and has not been replaced.

<i>Summary of Work done:—</i>					Miles. Ch.	Cub. yd.
Drains deepened and widened	..	..	..	..	4 8	3,916
Drains cleaned	..	..	..	..	95 15	..
Canals cleaned of weed growth by hand	..	..	..	..	21 75	..
Canals cleaned of weed growth by weed-cutter	..	..	..	..	9 20	..
Stop-banks built	..	..	..	..	60	5,280
Stop-banks raised	..	..	..	..	40	1,275
					Number.	
Flood-gates built	..	..	..	..	1	

Rates.—Rate demands issued numbered 830, totalling £10,315 0s. 5d., and rates collected amounted to £7,304 9s. 6d.

I have, &c.,
R. G. MACMORRAN,
Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

RANGITAIKI LAND DRAINAGE ACCOUNT.

RATE ACCOUNTS AS AT THE 31ST MARCH, 1932.

<i>Dr.</i>			Capital.		Maintenance.		<i>Cr.</i>			Capital.		Maintenance.	
£ s. d.			£	s. d.	£	s. d.	£ s. d.			£	s. d.		
To Interest on capital cost	..	12,268 13 1					By Balance	..	..	752 7 5	1,976 7 11		
Less capitalized		7,268 13 1					Rates levied	..	..	5,331 1 8	4,983 18 9		
			5,000	0 0			Penalty	..	..	213 3 4	194 0 9		
Cost of maintenance		4,982 4 1					Rates previously written off re-						
Less subsidy	..	2,087 0 0					charged	..	..	1 19 2	1 6 4		
					2,895 4 1								
Rates written off	..	..	157 5 3		174 6 6								
Balance	..	..	1,141 6 4		4,086 3 2								
			£6,298 11 7		£7,155 13 9					£6,298 11 7	£7,155 13 9		

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1932.

<i>Receipts.</i>			£ s. d.		<i>Payments.</i>			£ s. d.		£ s. d.	
To Cash in Public Account, 1st April, 1931	..	..	5,306 3 0		By Drainage works — Stop-banks, cleaning channels, and other expenditure incidental to drainage operations	..	4,740 9 8				
Rents	..	..	151 11 3		Less subsidy for maintenance	..	2,087 0 0		2,653 9 8		
Rates	..	..	7,376 6 10		Engineering and administration expenses	..	..		12 1 7		
"Thirds"	..	..	8 15 10		Law-costs	..	..		1 16 0		
Interest on investments	..	..	115 9 9		Loose tools	..	..		1 11 6		
Sundries	..	..	522 2 11		Refund of rates	..	..		19 17 4		
Rates paid in advance	..	..	5 11 6		Balance—Cash in Public Account	..	..		10,797 5 0		
			£13,486 1 1						£13,486 1 1		

REVENUE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1932.

			£ s. d.					£ s. d.			
To Interest on debentures	..	..	20,187 1 2		By Interest on investments	..	..	115 9 9			
					Accrued rent	..	..	182 14 9			
					"Thirds"	..	..	8 15 10			
					Surplus on sale of plant	..	..	2 10 1			
					Capitalized interest under section 12, Finance Act, 1927 (No. 2)	..	..	7,268 13 1			
					Interest recoverable by rates	..	..	5,000 0 0			
					Balance transferred to Drainage Works Account	..	..	7,608 17 8			
			£20,187 1 2					£20,187 1 2			

BALANCE-SHEET AS AT 31ST MARCH, 1932.

<i>Liabilities.</i>				<i>Assets.</i>					
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
Loan Account	515,500	0 0			Drainage-works—Expenditure in connection therewith (including wages, supplies, administration and engineering expenses, depreciation of plant, and capitalized interest charged)	382,944	2 4		
Less loans redeemed under Public Debt Repayment Act, 1925—					Less securities and amounts written off as <i>per contra</i>	15,500	0 0		
Securities cancelled and amount written off as <i>per contra</i> ..	15,500	0 0						367,444	2 4
Loan capital, as under—					Drainage-works—				
Debentures at—	£				Cost recoverable out of rates ..	205,000	0 0		
3½ per cent. ..	25,000				Capital interest—Section 12, Finance Act, 1927 (No. 2) ..	47,641	14 5		
3¾ per cent. ..	10,000							252,641	14 5
4 per cent. ..	405,000				Plant and machinery			10,694	5 7
4½ per cent. ..	55,000				Buildings			1,107	2 0
5¼ per cent. ..	5,000				Loose tools			218	7 9
			500,000	0 0	Live-stock			1	6 11
Loans redeemed from Consolidated Fund	2,500	0 0			Fuel			31	17 0
Less sinking fund in hands of Public Trustee	1,525	16 0			Sundry goods			685	17 2
			974	4 0	Sundry debtors—				
Consolidated Fund—					Rates	9,779	16 2		
Interest paid on loan capital ..	141,117	19 1			Law-costs	155	14 10		
Interest on temporary advances ..	387	2 3			Rents	6	19 4		
			141,505	1 4	Miscellaneous	62	18 5		
Unpaid purchase-money for land taken			210	1 1	Departmental	1	16 0		
Sundry creditors—								10,007	4 9
Miscellaneous	347	19 2			Stamps on hand			0	6 0
Departmental	43	18 6			Losses in Suspense			6	14 4
			391	17 8	Cash in Public Account	10,797	5 0		
Interest on debentures accrued but not due			4,751	4 8	Cash in transit	42	18 6		
Rate Account—								10,840	3 6
Capital	1,141	6 4							
Maintenance	4,086	3 2							
			5,227	9 6					
Suspense Account			591	6 0					
Writings-off in Suspense			6	14 4					
Payments in advance—									
Rates	18	19 2							
Rent	2	0 0							
Miscellaneous	0	4 0							
			21	3 2					
			£653,679	1 9				£653,679	1 9

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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