

1931.
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

RANGITAIKI LAND DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1931, 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, 1931.

I have the honour to submit herewith the report upon drainage operations in the Rangitaiki Plains for the year ended 31st March, 1931, 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,—

As provided by the Rangitaiki Land Drainage Act, 1910, I submit report on these works for the year ending 31st March, 1931.

The work consisted mainly of maintenance and minor improvements to existing works, carried out by hand labour. One dredge only was in commission for a short period, constructing a length of stop-banking for which a special grant was available. It will be necessary to have a dredge operating during the coming year on canal-maintenance, and a Bay City tractor drag-line will be transferred from another work.

A good spring was followed by an exceptionally dry summer, and by the middle of the dairying-season areas of the higher and lighter lands were in a parched condition, which affected considerably the cream returns for the season. It is noticeable in certain watersheds that, as the country dries out, the run-off is rapidly decreasing. It will therefore not be so necessary to maintain the outlets serving these areas at the same high state of efficiency as in the past.

During the year no serious flooding occurred in the area, and the rainfall was sufficient to cause only very small rises in the river water-levels.

Some trouble was experienced with the Tarawera River outlet. Six years ago this outlet was confined through the sandhills with stone groynes. Following a long spell of westerly weather the sand banked outside these groynes, and caused the outlet to wander some chains along the coast, with a consequent rising of the water-level. This was remedied by extending the stone groyne seaward. The Rangitaiki River mouth has been in a similar state for several years, but lately the position has become aggravated by the widening of the channel inside and through the sandhills increasing the loss of fall. The channel at this point was narrowed by placing and anchoring willows in order to give a lead to the water and encourage scouring through the sandspit across the original outlet. This scour has been taking place gradually since the placing of the willows, and it is hoped to utilize a dredge to complete the work early in the coming year.

Despite the unfavourable season experienced on portions of the area, another increase is recorded in the output of the Rangitaiki Plains Dairy Factory. The total amount of butter manufactured was 2,525 tons, an increase of 252 tons over last year's total. The Tarawera Cheese-factory manufactured 232 tons, against last year's total of 230 tons.

Development work received somewhat of a setback owing to the low prices received for dairy-produce, and in the main the settlers contented themselves with maintenance of established pastures. It is pleasing to note that in very few instances is the top-dressing—so essential to these pastures—being neglected. There is also a continued improvement in the quality of stock, and in many cases this has reached a very high standard.

Owing to the very low return for flax-fibre, development work on several of the flax areas has been practically at a standstill, the companies contenting themselves with maintaining the present cultivation. The past season proved an excellent one for the various areas of low-lying country, and generally a vast improvement in condition is apparent. Several areas are being served by electrically driven flood-pumps, and it has been possible to take advantage of the season to thoroughly dry out the soil. This should be successful in placing such areas in a good position to stand a wet season without serious detriment to the pastures.

Rainfall.—The average rainfall for the past thirteen years has been 52·58 in. Last year's total was 37·12 in., rain falling on sixty days. August was the wettest month, with a fall of 7·05 in., and December the driest, with a fall of 0·91 inches.

Eastern District.—No dredge work was carried out on this area, but it is hoped to have a light plant working in the Te Rahu Canal, north from the railway, during the coming year.

Improvement work was carried out in several drains, and two new outlets were constructed to serve areas previously only partially developed. Obstructions in the channel of the Waioho Stream were removed over a short length, and the stop-banks bordering this stream were raised and two short diversions constructed.

A silt-trap, with pile and sheet-pile foundations and concrete superstructure, was erected in the Whakaire Stream above the old Main Road, and one concrete single-barrel flood-gate was placed. The necessary maintenance of hand drains, stop-banks, &c., was carried out throughout the area.

Western District.—The only dredge-work carried out in this area was the erection of a short length of stop-bank on the Omeheu Canal to protect an area of low-lying country from overflow.

In addition to the usual maintenance of hand drains and stop-banks, &c., deepening-work was carried out in several lengths of drains, mainly in drains serving low-lying lands.

The stone groyne on the eastern side of the outlet of the Tarawera River was carried forward for a distance of 80 ft., and a short length of stone groyne placed up-stream to confine the channel before it reaches the main groyne.

Improvement work was carried out in the Rangitaiki River by the blasting of obstructions in the channel and protecting points of erosion. The lower reaches of the river for a length of four miles were cleared of all overhanging willows, which were punted to the river-mouth and anchored to confine the channel through the sandhills.

Dredges.—Of the three dredges on the area, the only one in commission during the year was the Bay City. This plant dredged a total of 10,310 cubic yards of spoil and erected a length of 35 chains of stop-bank.

Bridges, Flood-gates, &c.—One single-barrel flood-gate, one concrete and sheet-pile silt-trap, and two sill bridges were erected during the period.

Drains, Stop-banks, &c.—A length of 1 mile 44 chains of new drain was constructed during the year, and 35 chains of stop-bank was erected by the Bay City dredge.

Drains in Operation.—The total length of drains constructed is as follows: Dredge canals, 68 miles 28 chains; main-outlet drains, 109 miles 29 chains; road-drains, 30 miles 46 chains. Of the hand drains, a total of 99½ miles is maintained annually by the Department.

Roads opened.—The total length of roads opened is 113½ miles, of which 86 miles have been constructed by the Department.

Workshop and Smithy.—The workshop and smithy were closed down during the year, arrangements being made to lease the buildings and plant.

Plant and Machinery.—This consists of two Priestman dredges, one Bay City walker, one Priestman pontoon, two coal-punts, one oil-launch, three small boats and punts, and one motor-lorry.

Summary of Work done:—

					Miles ch.	Cub. yd.
Drains constructed	..	..	..	..	1 24	5,180
Drains cleaned	..	..	..	..	97 47	..
Drains deepened and widened	..	..	..	..	4 75	10,550
New stop-banks dredged	..	..	..	..	0 35	10,310
Stop-banks raised	..	..	..	..	0 40	1,150
Levels taken	..	..	..	..	7 40	..
Traverses run	..	..	..	..	3 30	..
					Number.	
Flood-gates built	..	..	..	..	1	..
Sill bridges erected	..	..	..	..	2	..

Rates.—Some 831 demands for rates were issued during the year, totalling £9,298 15s. 4d., and the rates actually collected amounted to £7,621 3s. 8d.

Works Expenditure.—The expenditure recorded for the year was £7,596 0s. 8d., day labour totalling £4,979 4s. 3d., and forty-three piecework contracts totalling £598 3s.

Proposed Works.—General hand and dredge maintenance of existing works and minor improvement work.

I have, &c.,

R. G. MACMORRAN,

Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

RANGITAIKI LAND DRAINAGE ACCOUNT.

RATE ACCOUNTS AS AT 31ST MARCH, 1931.

	Capital.		Maintenance.			Capital.		Maintenance.	
	£	s. d.	£	s. d.		£	s. d.	£	s. d.
To Balance .. ..	..	..	..	..	By Balance	349	9 3	..	..
Interest on capital	£	s. d.	..	..	Rates levied	4,310	7 3	4,988	8 1
cost	11,874	18 2	..	..	Penalty	165	8 11	184	14 0
Less capitalized	7,874	18 2	..	..			
			4,000	0 0					
Cost of maintenance	4,599	10 11	..	..			
Less subsidy	1,668	15 0	2,930	15 11					
			72	18 0					
Rates written off .. ..	..	..	752	7 5					
Balance .. ..	..	..	1,976	7 11					
			£4,825	5 5				£4,825	5 5
			£5,173	2 1				£5,173	2 1

RECEIPTS AND PAYMENTS ACCOUNT FOR YEAR ENDED 31ST MARCH, 1931.

<i>Receipts.</i>		£	s.	d.	<i>Payments.</i>		£	s.	d.
To Cash in Public Account, 1st April, 1930		2,418	4	2	By Drainage-works, stop-banks, clearing channels, and other expenditure incidental to drainage operations		4,772	9	5
Rents	.. .. .	115	8	6	Engineering and administration expenses	.. .. .	399	17	7
Rates	.. .. .	7,824	16	8	Fuel	.. .. .	16	6	4
"Thirds"	.. .. .	12	1	5	Legal expenses	.. .. .	63	3	0
Interest on investments	.. .. .	16	17	3	Material and stores	.. .. .	68	12	9
Temporary advances from other accounts under section 40, Public Revenues Act, 1926	.. .. .	1,000	0	0	Plant and machinery	.. .. .	101	12	9
Sundries	.. .. .	382	13	10	Loose tools	.. .. .	1	18	4
					Compensation for accident	.. .. .	17	16	0
					Refund of rates	.. .. .	6	19	5
					Exchange on cheque recouped to Consolidated Fund	.. .. .	15	3	3
					Temporary transfers from other accounts repaid	.. .. .	1,000	0	0
					Balance—Cash in Public Account	.. .. .	5,306	3	0
		£11,770	1	10			£11,770	1	10

REVENUE ACCOUNT FOR YEAR ENDED 31ST MARCH, 1931.

<i>Dr.</i>	£	s.	d.	<i>Cr.</i>	£	s.	d.
To Interest on debentures	20,257	6	10	By Interest on investments	16	17	3
Interest on temporary advances	23	6	10	Accrued rent	154	17	10
Exchange recouped to Consolidated Fund	15	3	3	"Thirds"	12	1	5
				Capitalized interest under section 12, Finance Act, 1927 (No. 2)	7,874	18	2
				Interest recoverable by rates	4,000	0	0
				Balance transferred to Drainage Works Account	8,237	2	3
	<hr/>				<hr/>		
	£20,295	16	11		£20,295	16	11

BALANCE-SHEET AS AT 31ST MARCH, 1931.

[illegible]

6th July, 1931.

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.—G. F. C. CAMPBELL, Controller and Auditor-General.

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

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