# 1932. NEW ZEALAND.

# DEPARTMENT OF LANDS AND SURVEY.

# DRAINAGE OPERATIONS IN HAURAKI PLAINS.

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

Presented to both Houses of the General Assembly pursuant to Section 20 of the Hauraki Plains Act, 1926.

Sir,— Department of Lands and Survey, Wellington, 1st July, 1932.

I have the honour to present herewith the report of the Chief Drainage Engineer on operations carried out during the past year on the Hauraki Plains in accordance with the provisions of the Hauraki Plains Act, 1926.

I have, &c., W. Robertson,

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

Under-Secretary for Lands.

# REPORT OF CHIEF DRAINAGE ENGINEER.

Sir,—

I have the honour to submit the twenty-fourth annual report on the Hauraki Plains works for the financial year ending 31st March, 1932.

During the period under review low export prices for dairy-produce prevailed, and though the position is becoming increasingly difficult for many settlers they show a spirit of fortitude and determination to overcome difficulties that is the best augury for the quick recovery and permanent prosperity of the district when normal times return. Low prices are being to some extent counterbalanced by increased production from enlarged and improved herds. The very satisfactory increase in production is, however, generally due to systematic herd-improvement carried out over a period of years rather than the result of extensive farm-improvements. It can be said without hesitation that few, if any, of the farms on the reclaimed land are producing to full capacity. It can also be said that with due attention to the important matter of herd-improvement, the most promising means of stabilizing returns by increasing production to offset reduced prices is by farm-development, closer subdivision, and more intense cultivation. While every effort possible under present economic conditions is being made to maintain the uninterrupted progress of the district by improving drainage conditions, roads, and other public utilities, the individual settlers with farms in the process of development have found that their plans for farm-improvement must be curtailed or deferred on account of reduced returns. The effect of the depression would be reduced to a minimum as far as most of the plains settlers are concerned if the unused acreage of the farms could be brought into a state of production. The scheme now being inaugurated by the Unemployment Board to allow for farm-development work offers a practical means of carrying out these farm-improvements and at the same time to provide employment for a large number of men.

The rainfall at Kerepechi was 43-23 in. in 1931, and rain fell on 167 days. The rainfall records supplied by a voluntary observer show a fall at Kopuarahi of 44-97 in for the year. The winter and summer rainfall distribution during the last three years has been remarkably uniform on the plains, and this has had an important bearing on the production for these seasons. Rainfall records for Kerepechi covering a period of sixteen years are given below:—

RECORDS OF DAILY PRECIPITATION, KEREPEEHI, HAURAKI PLAINS.

	Number of Days, with given Daily Precipitation in Inches.																		
Year.	0.00 to 0.49.	0.50 to 0.74.	0.75 to 0.99.	1.00 to 1.24.	1.25 to 1.49.	1.50 to 1.74.	1.75 to 1.99.	2.00 to 2.49.	2.50 to 2.99.	3.00 to 3.99.	4.00 to 4.99.	5.00 to 5.99.	6.00 to 7.00.	Total Days.	Total Fall.	Wettest	Month.	Driest M	Ionth.
1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928	109 131 145 122 85 93 101 151 132 142 149 159 125 124 131	12 11 14 9 7 12 17 6 8 15 15 10 7 19	9 4 6 1 10 5 9 5 10 4 6 6 9 8 2	7 4 3 3 3 4 5 2 4 5 2 3 2	$\begin{array}{c}2\\3\\\vdots\\2\\1\\2\\\vdots\\5\\\vdots\\3\\1\\3\end{array}$	3  1  1  1  2 4 2	3  1 1 1  2 		1		1			144 156 171 137 112 116 133 169 166 164 183 184 151	Inches. 52·19 45·61 44·06 27·36 43·16 34·41 42·81 47·04 60·37 37·64 55·53 45·33 47·30 41·05 37·72	Nov. Feb. Oct. July Feb. Oct. Feb. April June May July May April	In. 6·65 6·26 7·47 4·52 6·10 5·89 6·62 9·76 8·55 6·67 8·55 6·67 5·29 7·52 6·87	Feb. Jan. May Dec. July Feb. April Feb. April Jan. Feb. Dec.	In. 1·05 0·65 2·24 0·89 1·73 0·72 1·73 1·72 1·87 0·84 1·79 2·01 0·01 0·74 0·80
1930 1931 1932*	144	10	7 2	i	$\begin{vmatrix} 3 \\ 4 \\ \cdots \end{vmatrix}$	i .i				2				146 167 25	43·23 8·00	Jan. July Feb.	$7.80 \\ 4.95$	Mar. Jan.	$0.98 \\ 1.37$

\* First three months of year only.

Average annual rainfall over sixteen years is 44.05.

A land ballot was held in December for six sections in the Awaiti district, which attracted over two hundred applicants. A considerable amount of permanent improvement has already been carried out by the successful selectors, and next season these new farms should be entering the stage of actual production.

An area of 1,600 acres adjoining the Kerepeehi Block has reached the stage of development when it could be offered for selection as soon as a pumping-station is provided. The early installation of a special low-lift land-drainage pump is necessary for the protection of this area, and also the occupied portion of the Kerepeehi Block, which would be seriously affected if high stage of the Piako River prevented gravity drainage for many days.

The dry summer produced the usual succession of destructive peat fires. Fires in the Kaihere district burnt about 300 acres of grassland and also 250 acres of planted flax. As a means of preventing and controlling fires, I have for many years urged that the peat areas of the Hauraki Plains should be constituted fire districts. The fire-district principle has for many years formed an important feature in the protection of forests, and similar protection is absolutely essential for the successful development of the peat lands for flax-production. The experience this year has shown conclusively that grassland is not free from the fire menace.

A review of activities of the past year shows a decrease in the volume of work accomplished by the departmental forces as compared with the years immediately preceding. Contraction of public works has become essential as a matter of national economy, and the expenditure from the Hauraki Plains Settlement Account has been scaled down to meet the times.

The problem of unemployment is, unfortunately, still compelling, and in the search for work that will employ large numbers of men and can be undertaken quickly land-reclamation offers a most fruitful field. For several years all available funds have been used by the Department for the carrying-out of work requiring hand labour and providing reproductive employment for the largest possible number of workers. The number of men accommodated in camps and engaged on unemployment relief works on the 31st March, 1932, was about eighty, and plans have been formulated for increasing this number during the financial year 1932–33, if funds are made available. One of the works undertaken to relieve the shortage of employment is the Miranda drainage scheme. This is being carried out by the Department for the Hauraki Plains County Council under an arrangement with the Unemployment Board, and the scheme will provide main drainage for 4,000 acres of rich littoral swamp near Waitakaruru. The main drainage-channel is 3 miles 37 chains long, varying in width from 32 ft. to 10 ft., and is being constructed entirely by manual labour. This work was commenced on the 24th November. Insufficient funds delayed progress during the first three months, but excellent progress is now being made.

Works carried out by this Branch outside of the Hauraki Plains area include the formation and metalling of 75 chains of road in the Wairakau Estate, near Te Aroha, and the formation of 35 chains of road in the Paritu Block.

### DREDGES.

Eight dredges have been engaged on river-improvements, canal, stop-bank, and drain-construction in connection with the Hauraki Plains reclamation scheme, but not all of these plants have been operating continuously during the year. The total quantity excavated by these machines was 390,611 cubic yards, at an average unit cost of 7.99d. per cubic yard. The following schedule gives the quantities excavated by the dredges during the past twelve years:—

Year.		Cubic Yards.	Cost per
		,,	Cubic $\bar{\mathrm{Y}}$ ard.
1920–21	 	 158,865	7.42d.
1921-22	 	 246,022	7.29d.
1922-23	 	 440,092	8.20d.
1923-24	 	 508,654	7.27d.
1924 - 25	 	 822,286	5.86d.
1925-26	 	 856,653	6.32d.
1926-27	 	 647,182	7.42d.
1927 - 28	 	 652,413	7.32d.
1928-29	 	 619,911	6.54d.
1929-30	 	 595,565	6.25d.
1930-31	 	 536,692	8·32d.
1931-32	 • •	 390,611	7.99d.

No. 1 Priestman dredge has been operating in the Piako River deepening the channel between 18 m. and 20 m. 40 ch. The willows on both sides of the river are being removed to allow the dredge to deposit the spoil on the banks. The marked depression of the low-water level both in and above the improved reach is a sure indication that the work will have the desired effect of reducing local flooding. The quantity of material removed by this dredge during the year's operations in the process of deepening the river-channel was 38,800 cubic yards, at a unit cost of 8.54d. per cubic yard.

No. 2 Priestman dredge worked in the Maukoro-Waitakaruru Canal during the months of April

No. 2 Priestman dredge worked in the Maukoro-Waitakaruru Canal during the months of April and May only. Before the plant was laid up a bench was excavated on the side of the canal on which the dredge was beached when the canal water-level, which is controlled by dams, was lowered. After repairs to the hull had been effected the dredge was refloated and used to remove one of the dams in the canal. During two months operation the dredge excavated 7,700 cubic yards of material at a cost of 8.54d, per cubic yard.

No. 6 Priestman dredge: The pontoon of this dredge has for some time been unsafe for use in deep water owing to general decay of the timber, and the machinery has been removed and stored at Kerepeehi.

No. 11 Kingston dredge was employed in the Awaiti Canal during April and May. In June the plant was completely overhauled and the boiler removed and replaced with the boiler from No. 6 dredge. Early in July this dredge was again put into commission between the 6-mile peg and the Ngatea bridge (8 m. 8 ch.), where shoals and slips were removed. While deepening the channel in the neighbourhood of Ngatea wharves and bridge, pontoons were used to dispose of the excavated material. During part of November and December the dredge crew was temporarily transferred to No. 2 dredge, and during the last quarter of the year the plant has been operating in the Piako River between Kerepeehi and Kaihere, and in the Puhanga Canal. The output for the year was 40,100 cubic yards, and the unit cost 9-63d. per cubic yard.

No. 15 Bucyrus excavator completed the widening of the Waikaka diversion channel in August. During the period September to November the machine was engaged widening and deepening the Piako River between Kaihere Wharf (14 m. 45 ch.) and the lower end of the Waikaka diversion (15 m. 50 ch.), operating from the left bank of the river. Since December the plant has been operating from the right bank on the same reach. The internal-combustion engine was completely overhauled and new cylinder heads fitted in October. On the diversion channel a 35 ft. boom and I-cubic-yard bucket was used, but for the river-improvement work a 50 ft. boom with half-yard bucket was used. The output for the year was 70,800 cubic yards, and the average cost 6.79d. per cubic yard.

No. 16 Bucyrus excavator completed a section of stop-bank on the left side of the Awaiti Canal early in April, and was shipped to Kerepeehi for extensive overhaul, including renewal of the caterpillar traction equipment. During the period August-October the machine completed the stop-bank on the left side of the Piako River, between the Ngatea bridge and the Puhanga Canal (8 m. 19 ch. to 8 m. 57 ch.). Since November the plant has been engaged widening the Piako River upstream from Kerepeehi between 11 m. 41 ch. and 12 m. 10 ch., also strengthening the right stop-bank with the spoil removed from the river. Using extension boom of 50 ft. and half-yard bucket, 40,300 cubic yards of material was handled during the year at average cost of 11·71d. per cubic yard.

No. 19 dredge has been working downstream on the right bank of the Piako River from 14 m. 33 ch. to 13 m. 18 ch., widening and deepening the river-channel. This machine excavated 81,300 cubic yards of material during the year at unit cost of 6.35d., which is a very creditable performance in view of the fact that most of the excavated material is transported 200 ft.

No. 23 steam dipper dredge has been out of commission practically the whole year. As the country through which the Elstow Canal is being constructed is exceptionally soft peat, it was found advisable to lower the water-level in the canal to allow the land to drain and consolidate.

No. 24 steam dipper dredge commenced work in April on the Pouarua Canal above the temporary dam at Ngatea West Road, and during the year constructed 85 chains of new canal and deepened 34 chains of existing canal. Owing to the soft nature of the country, excessive bank-caving could be avoided only by maintaining a high canal water-level and gradually deepening the canals. By

working the dredge alternately in the Railway and Pouarua Canals very satisfactory progress has been made, and it is anticipated that after allowing a period of a few months for consolidation of the country it will be possible to complete the upper 94 chains of the Pouarua Canal, remove dam at Ngatea West Road, and deepen the lower section of the canal, 4 m. 66 ch. in length, which has become impassable for coal-barges. This has caused some difficulty in supplying the dredge with fuel, which had to be carted over soft peat for a distance of over a mile. The dredge excavated 81,600 cubic yards during the year at average cost of 8·10d. per cubic yard.

No. 28 Bay City dragline excavator, after completing a large volume of useful work enlarging drains that would have been difficult and costly jobs to carry out by manual labour, was transferred to the Rangitaiki works on the 29th March. This machine was used to deepen the Mangawhero Road drain for a distance of 328 chains. When the material removed from the drain was suitable it was used for ballasting the road, which has a peat subgrade, and sufficient gravel was removed from the upper end of the drain to surface the road for a distance of 156 chains. The quantity excavated during the year was 29,300 cubic yards at a cost of 6.72d, per cubic yard.

### CENTRAL DISTRICT.

River-improvement work has been the principal construction activity in this district. Four dredges have been operating on a reach of seven and a half miles, completing stop-banks and enlarging the river-channel. The Torehape Tramway has been repaired, sleepers renewed, and loop-lines constructed preparatory to commencing the ballasting of Centre Road; 6,052 sleepers have been cut for additional tram-line and the rolling-stock repaired. Parties of workmen have been employed spraying and grubbing blackberry on flax plantations, sowing grass-seed, and ring-barking willows. Some 1,987 chains of drains were cleaned in this district, including 500 chains in the Orongo Settlement. The Kerepeehi–Kaihere Road was resurfaced for a distance of 216 chains. The river ferry service at Kaihere has been maintained during the year. The depot at Kerepeehi is the centre at which all goods and materials are received and despatched to the various jobs, and all repairs to machinery and plant are carried out in the workshops at Kerepeehi.

# PATETONGA DISTRICT.

The Patetonga Riding roads metalling scheme, comprising the metalling and improvement of 9½ miles of roadway commenced in 1929, was completed in July. During the year under review 1,674 cubic yards of metal was laid on the Patetonga main roads, and 919 cubic yards of metal was quarried and spread on the Patetonga Landing Road. Some 1,440 cubic yards of clay ballast was delivered along the last-mentioned road by tramway. This tramway was afterwards removed and the material transported to Torehape to be used for ballasting peat road in the Pouarua Block. For surfacing 156 chains of the Mangawhero Road 1,335 cubic yards of gravel was used, and the roadway was widened with the material won from the road drain. A party of four men was employed during the summer ring-barking willows on the Piako River, above Patetonga, and cutting and hauling logs required for sleepers and general construction purposes from the bush on the banks of the Waitoa River. Drains to a length of 2,566 chains were cleaned and 19,300 cubic yards of material excavated in widening and deepening 362 chains of existing drains. Systematic attention has been given to the maintenance of the reconstructed and newly metalled roads. Throughout the year a Priestman dredge has been operating in the Piako River deepening the channel above Patetonga Wharf.

### AWAITI DISTRICT.

The work in this district has been principally connected with the development of Koromatua Block, an area of 941 acres of Crown land adjoining the Otway Settlement. The block has been subdivided into six sections. The formation of 135 chains of access road is completed, and also the primary construction of a drainage system that will be progressively improved as the land consolidates. As the converting of raw swamp land of this kind into pasture is an undertaking that can only be carried out by the settler possessing a considerable amount of capital, it has been decided, before offering this land for selection, to fence four sections and sow an area of each with grass-seed after cultivation and treatment with manure. By the end of March 232 acres had been cultivated with swamp ploughs and tractors, disks, harrows, and roller, 50 acres had been sown in grass, 164 acres cleared of scrub, 162 chains of fence erected, and 15,631 cubic yards excavated in the construction of 501 chains of new drains. At the northern end of the Awaiti district 1 mile 70 chains of new roadformation was completed and 60 chains partly completed. Some 298 chains of existing drains were The formation and metalling of 75 chains of road in the Wairakau Block, widened and deepened. near Te Aroha, was carried out during the first quarter of the year, and 940 cubic yards of crushed river-gravel was used for surfacing this road.

# WAITAKARURU DISTRICT.

In addition to the works connected with the Miranda drainage scheme previously mentioned, the principal undertakings in this district have been the construction of the Pouarua Canal, the clearing of 180 acres of scrub in Sections 38, 40, and 42, Block IV, Piako Survey District, preparatory to burning and surface sowing, the excavation of 5,069 cubic yards in the improvement of 162 chains of drains, construction of 206 chains of field drains requiring 3,112 cubic yards of excavation, and the cleaning of 2,625 chains of drains for maintenance purposes.

### STRUCTURAL WORK.

Three small hardwood bridges, each 20 ft. span, on pile abutments were constructed on the Awaiti Canal Road. Three 4-ft.-diameter flood-gates were installed at Netherton, and a large two-barrel concrete culvert with sluice-gates constructed on the Kerepeehi Block. A large goods-shed has been moved from Patetonga to Kerepeehi, where it is being used for the storage of plant and machinery. A number of temporary dams and some temporary bridges have been required in the process of canal-construction.

#### SURVEYS.

Engineering and hydrographic surveys carried out during the year required 656 chains of theodolite traverse, 1,506 chains of levels, 758 chains of magnetic traverse, and 330 cross sections of the channel of the Piako River. A continuous record of river stage at several control points has been kept throughout the winter months.

#### SUMMARY.

The total length of the subsidiary drains constructed in connection with the Hauraki Plains scheme to date is 741 miles 75 chains. The principal works carried out during the year under review are summarized in the following schedule:—

						Length. Miles ch.	Excavation. Cub. yd.
						89 58	• •
Drains widened and deepened by manua						6 14	10,013
Drains, new construction by manual lab	••,	• •	• •		10 49	33,599	
Total quantity of drainage exce	avation by	manual	labour				43,612
New canals constructed by machines						1 5	23,875
River and canal improvement, machine	constructi	on				$13 \ 48$	337,477
Drain and canal improvement, machine	constructi	on	• •		• •	6 32	29,259
Total quantity excavated by n	nachines	• •				••	390,611
Stop-banks constructed or partially cons	tructed in	connecti	on with	river-in	nprove-		
ment and canal-construction				• •	• • •	252	
						Miles ch.	Cub. yd.
Roads metalled						271	2,339
Roads metalled, top course only						$5\ 42$	2,593
Roads resurfaced with metal or gravel						$2\ 56$	643
Total quantity of road-metal la	$\operatorname{aid}$						5,575
						2 40	
New roads formed						3 5	
Clay carted for ballasting peat roads and	d haunchir	ig metal					1,633
Fences erected						2 - 5	
Levels taken for road and drainage work	ζ					48 35	
Traverses for road and drainage work						24 23	
							Acres.
Area cleared of scrub					٠.		344
Area cleared of blackberry	• •						385
Area ploughed, disked, rolled, and harro	owed	• •					232
Area sown in grass	• •		• •	• •	• •	• •	57
Bridges—							Number.
Road bridges, 20 ft. span, pile abut	ments						3
Reinforced concrete culverts, two 4	ft. by 4 ft	. barrels					1
Concrete flood-gates, 4 ft. diameter				,			3
Cross-sections of Piako River and c	anals						791

# FLAX LEASES.

Some 6 areas, totalling 2,474 acres, are leased for flax-growing purposes. Annual rental amounts to £336, and £117 10s. 8d. was collected.

# GRAZING-AREAS.

The area leased for grazing purposes under temporary tenancies is 6,770 acres, let in fifty-seven holdings. Annual rental totals £511 7s., and £349 19s. 4d. was actually collected.

# WORKS EXPENDITURE.

The total expenditure recorded totalled £25,488 15s. 2d., of which day labour accounted for £13,284 18s. 1d. Drainage rates struck totalled £2,314 1s. 1d., and £2,745 2s. 11d. was collected.

### GENERAL.

The staff, as usual, has rendered loyal and efficient assistance.

### I have, &c.,

R. G. MACMORRAN, Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

# HAURAKI PLAINS SETTLEMENT ACCOUNT.

# RATE ACCOUNT AS AT 31ST MARCH, 1932.

Dr.  To Cost of maintenance Rates written off  Penalty, 1930–31, remitted  Balance		17	$\begin{array}{c} 12 \\ 14 \\ 4 \end{array}$	d. 1 6 4 6	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{4}{1}$
		£2,954	19	5	£2,954 19	5
						-
REVEN	UE ACCOU	NT FOR	THE	Y	EAR ENDED 31st March, 1932.	
Dr.					$\mathfrak{L}$ s. c	d.
To Interest on debentures issued un	nder Haural	ai £	s.	d.	By Accrued rent 9,427 4	9
Plains Settlement Act, 1926		. 32,722				3
Interest on expenditure from Publi	e Works Fun	d 202	16			9
Administration expenses		. 385	10	7	Tram freights and ferry fares 252 16	4
Remissions of rent		. 136	- 8	0	One-half loss, Kaihere Ferry, recoverable from	
Rebates rent and interest		. 578	13	0		5
Interest on temporary loan		. 6	15	10	THEOLOGO OH HIT CERTIFICATION	0
Irrecoverable rents, &c		. 172	-10	7	into top on saids of fairs	$^{2}$
, , , , , , , , , , , , , , , , , , , ,					Interest anowed on sinking-rang continuation	1
					Miscellaneous services 644 19	
					Net loss carried down	8
						-
		£34,205	7	11	£34,205 7 1	. 1
		£			£ s. c	= 1
m 37 / 1 1 1 / 1		22.579		d. 8	D D 1	
To Net loss brought down Balance from previous year		$\frac{22,579}{123,759}$		5	By Balance carried forward140,339	•
balance from previous year	••	120,100				
		£146,339	1	1	£146,339 1	1

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

	Receipts.		£	s.	d.	Payments.	£	s.	d.
То	Balance, 1st April, 1930		13,941	6	1	By Drainage works—Stop-banks, clearing channels,			
	Rates		2,778	15	6	and other expenditure incidental to conduct-			
	Inscribed stock issued—Hauraki F	lains Act, 1926	800	0	0	ing drainage operations (including formation			
	Temporary loan from other account	nts	1,000	0	0	and metalling of roads), material supplied, &c.	,		0
	Sales of land		231	0	11 .	Machinery and plant	641		0
	Rents		7,666	19	5	Material and stores	2,030	2	8
	Interest on sales of land		333	11	9	Fuel $\dots$ $\dots$ $\dots$ $\dots$	3,879		4
	Artesian-well boring—	£ s. d.				Maintenance, completed works	1,815		
	Repayment of advances	136 9 1				Management and engineering expenses	2,487		
	Interest on advances	15 13 1				Refund of rates	95	12	4
					2	Discharged Soldiers Settlement Account—Re-			_
	Tram freights and ferry fares		285		6	coupment in respect of merged transactions		5	
	Interest on investments		190		0	Consolidated Fund—Interest on debentures	2,000	0	
	Instalments on buildings		15	6	9	Temporary loan from other accounts repaid	,	0	_
	Credits in reduction of expenditur	е	4,603	16	$^2$	Interest on temporary loan	-	15	
	Rates paid in advance		0	13	6	Balance—Cash in Public Account	44	10	4
	-						202 000		
			£ $32,000$	$^2$	9	£	232,000	2	9
						=			2300

# BALANCE-SHEET AS AT 31st MARCH, 1932.

Liabilities.	Assets.					
Capital Account— £ s. d. £ s. d	Improved land handed over to Land Board for					
Debentures issued under Hauraki	settlement— £ s. d. £ s. d.					
Plains Act, 1926—	Leased 194,227 9 11					
Debentures at— $\mathfrak{L}$	Unleased 5,609 17 8					
$3\frac{1}{2}$ per cent 60,000	199,837 7 7					
$3\frac{3}{4}$ per cent 25,000	Unpaid purchase price of land sold on deferred					
4 per cent 592,300	payment 13,388 10 7					
$\frac{4\frac{1}{2}}{2}$ per cent 122,500	Unimproved value of land not disposed of 42,325 14 11					
$5\frac{1}{2}$ per cent $10,000$	Improvements on adjoining Crown lands . 7,710 0 0					
809,800 0 0	Permanent Reserves 8,851 0 0					
Expenditure from Public Works	Works in progress—Expenditure on land in process					
Fund 5,070 0 0	of reclamation, including formation and metalling					
Value of Crown lands set apart under the Act 45,000 0 0	of roads					
under the Act $45,000   0   0$ $$						
Discharged Soldiers Settlement Account—Merged	Crown tenants, Hauraki Plains 433 2 5 Permanent reserves and Crown					
interests under section 20, Discharged Soldiers	lands 216 10 9					
Settlement Amendment Act, 1923 435 6						
Consolidated Fund—	Buildings 5,328 16 3					
Interest on debentures under £ s. d.	Wharves 3,959 5 0					
Local Bodies' Loans Act, 1908 22,083 6 8	Machinery and plant					
Interest on expenditure out of	Live-stock 65 5 0					
Public Works Fund 4,867 4 0	Loose tools 271 10 9					
Interest on temporary loans 628 9 11	Stores and fuel 4,773 11 3					
Rates unpaid, 1917-21 31 13 2	Stamps on hand 1 1 0					
Interest on debentures under	Sundry debtors— £ s. d.					
Hauraki Plains Act, 1926 123,833 14 3	Rent 3,401 3 4					
	)   Rates 3,273 9 10					
Interest on debentures accrued but not due 6,134 11						
Sundry creditors— £ s. d.	ferred-payment sales 129 15 11					
Miscellaneous 1,840 0 2	Interest on deferred-payment sales 163 19 0					
Departmental	Interest on well-boring 103 16 5					
	5 Law-costs 92 10 10					
5	Ferry fares and tram freights 79 16 9					
YTT D. M. C.						
Writings-off in Suspense	2   Miscellaneous 6,275 12 7   Departmental 749 1 6					
Ď	——————————————————————————————————————					
Interest on deferred payment	Postponed rent 627 11 3					
sales 0 1 7	Losses in Suspense					
Rates 1 4 11	Interest accrued but not due on sales 134 0 0					
51 11 1						
3- 1	Revenue Account—Balance forward 146,339 1 1					
	Cash in transit from Post Office 0 1 3					
	Cash in Public Account 44 10 4					
£1,023,532 5	$\pounds 1,023,532  5  9$					

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. The following comments are appended: (1) In the opinion of the Audit Office interest charged on works in progress should be capitalized. (2) A Bad Debts Reserve should be created. (3) Suggestions in reference to the treatment of expenditure on lands already handed over for settlement were made to and are at present under consideration by the Department.—J. H. Fowler, Deputy-Controller and Auditor-General.

Approximate Cost of Paper.—Preparation, not given; printing (665 copies), £8 10s.

By Authority: W. A. G. SKINNER, Government Printer, Wellington.—1932.

Price 6d.]

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