

1933.
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

DRAINAGE OPERATIONS IN HAURAKI PLAINS.

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

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,
Under-Secretary for Lands.

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

REPORT OF CHIEF DRAINAGE ENGINEER.

SIR,— I have the honour to submit the twenty-fifth annual report on the Hauraki Plains works, giving details of the progress made during the year ending 31st March, 1933.

Farming activities on the Hauraki Plains have been assisted by a succession of good seasons. Production has been steadily increasing, but falling prices have naturally resulted in decreased returns for an increased output. In 1929-30 financial year, production to the value of over £595,000 was recorded. Since then there has been a quantitative increase in all the main products, excepting flax, but production values have fallen to approximately £376,000 for the year under review. The quantity of butter produced in 1929-30 was 2,584 tons and in 1932-33 2,754 tons, an increase of about 6 per cent. Cheese production for the same periods increased from 1,686 tons to 2,797 tons, an increase of 65 per cent. The value of stock sold through those dealers who have kindly supplied returns is £23,000. Only 180 tons of fibre and tow was produced during the past year, most of the mills having been closed for practically three years.

There is, however, no lack of evidence of an unshaken faith in the district's expansion. A land-ballot held in November for seven sections of a total area of 600 acres attracted about two hundred applicants, and there was an equally keen demand when an area of 540 acres of the Koromatua Block was offered for selection in four sections in July.

A further advance in the progress of the district is indicated by the handing-over during the year of the control of the drainage system of a large area at Waitakaruru to the Hauraki Plains West Drainage Board, and it is probable that on completion of the Miranda drainage scheme an additional 4,700 acres will be added to this district in the near future. Change from Government to local body marks the period in the process of development when essential construction has been completed and continuous farm production is assured.

The rainfall at Kerepechi in 1932 was 32.05 in., which is exceptionally low. It has been below the average for the past four years, with a remarkable freedom from flood-producing storms. Though more rain would have been beneficial to the pasture last year, there is no doubt that the dry periods have helped to bring about a healthy condition of the soil.

The opinion is sometimes expressed that deep drainage is now causing excessive drying of the soil, but it must not be overlooked that in the fine-grained alluvial soil deep drainage is the only means of preventing the saturation of the soil and harmful "poaching" of the grass lands in winter by prolonged and heavy rainfall. In peat land the required height of the water-table varies according to the widely differing characteristics of the peat. Well decayed surface peat requires deep drainage during winter, and checks or dams in the lateral drains during summer to maintain favourable moisture conditions. In certain areas it is exceedingly difficult to control the water-level in peat lands, but the matter is of sufficient importance to receive the attention of the settlers on this class of land.

Rainfall records for Kerepehi since 1915 are given below:—

RECORDS OF DAILY PRECIPITATION, KEREPEHI, HAURAKI PLAINS.

Year.	Number of Days, with given Daily Precipitation in Inches.												Total Days.	Total Fall.	Wettest Month.	Driest Month.	
	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.
1916 ..	109	12	9	7	2	3	..	1	..	..	1	..	..	144	52.19	Nov. 6.65	Feb. 1.05
1917 ..	131	11	4	4	3	..	1	1	1	..	..	..	..	156	45.61	Feb. 6.26	Jan. 0.65
1918 ..	145	14	6	4	..	1	..	..	1	..	..	..	..	171	44.06	Oct. 7.47	May 2.24
1919 ..	122	9	1	3	2	..	2	..	..	..	..	..	..	137	27.36	July 4.52	Dec. 0.89
1920 ..	85	7	10	3	1	1	3	2	..	..	..	..	..	112	43.16	Feb. 6.10	July 1.73
1921 ..	93	12	5	3	2	..	..	1	..	..	..	..	..	116	34.41	Oct. 5.89	Feb. 0.72
1922 ..	101	17	9	3	..	1	1	..	1	..	..	..	..	133	42.81	Feb. 6.62	April 1.73
1923 ..	151	6	5	4	..	1	1	..	..	..	..	..	1	169	47.04	April 9.76	Mar. 1.72
1924 ..	132	8	10	5	2	5	1	1	..	2	..	..	..	166	60.37	April 8.55	July 1.87
1925 ..	142	15	4	2	..	..	..	..	..	..	..	..	..	164	37.64	June 6.67	April 0.84
1926 ..	149	15	6	4	5	2	2	..	..	..	..	..	..	183	55.53	May 8.86	Feb. 1.79
1927 ..	159	10	6	5	..	4	..	..	..	..	..	..	..	184	45.33	July 6.29	April 2.01
1928 ..	125	7	9	2	3	2	2	1	..	..	..	..	..	151	47.30	May 7.52	Jan. 0.01
1929 ..	124	19	8	3	1	..	..	..	..	..	..	..	..	155	41.05	April 5.09	Feb. 0.74
1930 ..	131	4	2	2	3	..	2	2	..	..	..	..	..	146	37.72	Jan. 6.87	Dec. 0.80
1931 ..	144	10	7	..	4	..	..	..	..	2	..	..	..	167	43.23	July 7.80	Mar. 0.98
1932 ..	126	7	5	4	..	1	..	..	..	..	..	..	..	143	32.05	Feb. 4.95	Nov. 0.93
1933* ..	38	2	1	3	..	..	..	1	..	..	..	..	..	45	12.01	Feb. 6.54	Mar. 1.20

* First three months of year only.

Average annual rainfall over seventeen years is 43.34 in.

Under the provisions of the Land Laws Amendment Act, 1932, a fire district was constituted comprising the peat lands within the Hauraki Plains District, and the value of this legislation is apparent in the entire absence of serious damage from swamp fires since the fire district regulations came into force. In the past destructive swamp fires have annually caused considerable loss to the Crown and individual settlers. With the co-operation of the settlers the fire district principle will be an effective protection policy.

There are, on the Hauraki Plains, extensive areas of naturally grown and planted flax, and protection from fire is the first essential for the preservation of these valuable assets. The price position of the staple farm products to-day indicates the need for more diversified production, and with reasonable security against loss by fire the development of the latent possibilities of the flax lands in the district is a work that would provide reproductive employment for a large number of idle men.

As the outcome of economic conditions and the unemployment situation radical changes have been made in the Department's construction methods during the last few years. The immediate problem has been to determine how, within the reduced appropriations, the progressive development of the district could be continued and employment provided for the largest possible number of workers. Stage construction programmes have been rearranged so that the cost of works undertaken would be absorbed in labour, and, where possible, manual labour has been used in place of machinery. With the co-operation of the Unemployment Board and local bodies, eight relief work camps have been established in different parts of the district, and arrangements have also been made for the conveyance of about forty workers daily from Thames and Kerepehi to relief work jobs.

The number of men employed at the commencement of the financial year was 130, and at the end of the year the number had increased to over 230. All of the men are engaged on works of real importance and public benefit that sooner or later must be done to develop the resources of the reclaimed land. They comprise drainage, flood protection, road construction, also clearing and grassing of Crown lands in preparation for settlement. A large proportion of the cost of the work is provided by the Unemployment Board. Approximately 90 per cent. of the expenditure to-day on land reclamation and development goes to the wage-earner. There is exceptional scope for economically sound development work on these lines on the Hauraki Plains, and the continuation and extension of the Department's activities can be urged with sound reasons backed by past achievements.

DREDGES.

During the past year plant investment has shown considerably reduced earnings. Six dredges were operating until the end of July, when for reasons of economy four plants were laid up, and only two dredges have been working during the last eight months of the year. The improvements to the Piako River were stopped during the year, but it is to be hoped that funds will be made available shortly to enable the length between Kerepehi and Kaihere Landing to be completed.

The number of serviceable dredges and excavators on the plant lists has been reduced from eleven to eight. No. 28 light Bay City excavator has been transferred to the Rangitaiki Works. No. 20 Rood excavator has been practically dismantled, and the engine and some parts used for reconstruction of No. 19 dredge. No. 6 Priestman dredge, which was purchased from the Auckland Harbour Board over twenty years ago, has been dismantled, and the hull, which had become completely unseaworthy, broken up.

The output of the dredges for the year was 200,954 cubic yards, and the average cost, including interest and depreciation charges for plants in commission, was 8d. per cubic yard.

The following table given the total quantities excavated by the dredges during the past thirteen years:—

Year.	Cubic Yards.	Cost per Cubic Yard.
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.
1932-33	200,954	8.00d.

No. 1 Priestman dredge was from April to July engaged on the Piako River improvement works above Patetonga, between 17 m. 12 ch. and 17 m. 22 ch. When the work was closed down for reasons of economy 16,499 cubic yards of material had been excavated at an average cost of 6d. per cubic yard.

No. 11 Kingston dredge completed dredging the Puhanga Canal in July, and has since been idle. The total output for the time worked was 21,648 cubic yards, and the unit cost 6.23d.

No. 15 Bucyrus excavator has also been out of commission since July. It was employed on channel-enlargement in connection with the Piako River improvement works above Kaihere Landing, between 14 m. 47 ch. and 15 m. 18,394 cubic yards was excavated, at average cost of 7.55d. per cubic yard.

No. 16 Bucyrus excavator has been continuously employed throughout the year. From April to July the machine was engaged widening the Piako River and strengthening the stop-banks with the spoil between 12 m. 12 ch. and 12 m. 38 ch. After stoppage of the river-improvement works the machine has been used to complete the stop-banks and embankment road on the Awaiti Canal. The difficulty due to bank-caving experienced during the early stage of construction of this canal has been overcome, and the stop-banks are now stable and complete, with the exception of one gap which is to be filled when the Kerepechi Block pumping-station is installed. The total excavation for the year was 54,117 cubic yards, and the unit cost 8.13d.

No. 19 dredge, working on the right bank of the Piako River between 13 m. 10 ch. and 13 m. 23 ch., excavated 13,291 cubic yards. The material was excavated from the river-bed and conveyed 200 ft. to the stop-bank by the dredge at cost of 11.26d. per cubic yard. This unit cost is unusually high for this plant, because it includes cost of extensive repairs and the standing charges for four months when the actual working-time was only fifty-three days.

No. 23 steam dipper dredge, after being laid up for some time, was recommissioned in April, 1932, to recondition the Upper Elstow Canal for a distance of 3 m. 55 ch. above the temporary dam in the Intercepting Canal. This work occupied about five months, and on its completion the dredge crew was transferred to No. 24 steam dipper dredge. 36,622 cubic yards were excavated for the improvement of the Upper Elstow Canal and unit cost was 7.7d. per cubic yard.

No. 24 steam dipper dredge has been working intermittently in the Pouarua and Railway Canals due west from Ngatea. The water-level had been raised in the canal by a temporary dam built last year at the intersection of the Orchard West Road and Canal to prevent the canal-banks from caving under the weight of the spoil-banks. The canals were deepened by successive shallow cuts with an interval between each during which the water-level above the dam was gradually lowered. At the end of January the dam was removed and the dredge is proceeding downstream deepening the canal, which was originally made only deep enough to float the dredge to reduce the risk of bank-caving. In 108 working-days the dredge output was 40,283 cubic yards, and the cost was 8.86d. per cubic yard.

The following are the details of the works carried out in each district:—

WAITAKARURU-TOREHAPE DISTRICT.

The Miranda drainage scheme, commenced in November, 1931, is now nearing completion. This work, which is being financed by the Hauraki Plains County Council and the Unemployment Board, provides drainage for a block of 4,700 acres of excellent dairy land at Waitakaruru. The work has been carried out on the co-operative contract principle at rates of pay computed so as to enable 10s. per day to be earned by the average workman. The actual average daily earnings of the co-operative contract workers since the commencement of the scheme is 9s. 9.6d. per man. Accommodation for sixty men is provided in camps, and the number of men employed has varied between twenty-five and sixty-five. The total excavation completed to date is 101,364 cubic yards, and 850 chains of drains and 245 chains of stop-bank have been completed. Several bridge culverts and flood-gates connected with the scheme are also completed.

A camp for twenty-four men was established at Waitakaruru in November for the purpose of clearing and draining Crown land on the western side of the Maukoro Canal. Thick manuka scrub has been felled on an area of 306 acres, which, after burning, will be sown in grass in the autumn.

Another camp of sixteen men, established at Mangatarata in March, have commenced clearing the Mangatarata Stream. Twenty-nine chains had been completed at the end of March.

In August a camp of seventeen men was transferred from Kaihere to Torehape, where the men have been employed ballasting peat roads with clay. From the pit at Torehape the clay ballast is hauled on light railway an average distance of $3\frac{1}{2}$ miles to Centre Road. After repairing 3 miles of line and renewing sleepers, some 53 chains of new tramway has been laid along the Centre Road on 3,700 fascines, and 5,022 cubic yards of ballast spread along 38 chains of road. The total length of the road to be formed is $2\frac{1}{2}$ miles, and, when completed, it will provide access for nineteen sections, having a total area of about 1,900 acres.

For the purpose of providing a stock route between Ngatea and Waitakaruru a hardwood bridge of 25 ft. span has been erected over the Pouarua Canal on the Orchard West Road, which has been formed for a distance of 115 chains eastwards from the Maukoro Canal. Detours have been made on the road along the eastern side of the Maukoro Canal at dam spillways, and this road graded, and on completion of 30 chains of formation on the Orchard East Road a through route for stock will be available. When the Orchard East Road is formed for its entire length it will provide access for a number of new farms and be a valuable addition to the means of access to the district.

Drains of a total length of 1,419 chains were cleaned, and 3,903 cubic yards of material was excavated in widening and deepening 275 chains of drain.

Grass-seed was sown on 180 acres of land where the scrub had been cleared and burnt, and this area was subsequently opened for selection.

KEREPEEHI, AWAITI DISTRICT.

During the first four months of the year three dredges were engaged on the Piako River improvement works between Kerepeehi and the Waikaka diversion, one in the Puhanga Canal, and two dredges were employed intermittently on the Awaiti and Elstow Canals.

A party of sixteen relief men, camped at Kaihere, was engaged cutting and clearing Crown land from April to July, when the men were transferred to Torehape Road works. In November another party of about twenty-one men from Auckland went into the Kaihere camp, and have since been employed clearing blackberry and scrub, principally in flax areas.

A party of sixteen men camped at Netherton have been engaged since February on the construction of Bancroft's Drain. This drain will be four miles long, and will be an additional outlet into the Awaiti Canal for the land to the south of the Tirohia - Otway Road.

The formation of a new road 5 miles long from Kerepeehi to Netherton, commenced last year, was completed this summer when 2 m. 60 ch. of this road was formed. The road on the left bank of the Awaiti Canal for a distance of 5 miles upstream from the Reservoir Canal was also formed with grader. This road is on a banquette along the inside of the main stop-bank, and had previously been partly formed with drag-line excavator.

During the winter a party of ten to twelve men was engaged reconditioning the boundary drains on the Kerepeehi Block Extension, and the construction of a large two-barrel sluice-gate on this block was commenced.

Operating from the headquarters at Kerepeehi a large number of minor undertakings have been carried out over a wide area, including fencing, cutting sleepers and posts from bush on the banks of the Waitoa River, sowing with grass-seed 232 acres on the Koromatua Block, which had been ploughed and cultivated during the autumn of the previous year, and 70 acres of surface sowing, erecting 343 chains of fencing on the same block, also 464 chains of fencing at Kaihere.

The usual drain and road maintenance carried out during the year comprised cleaning 2,595 chains of main drains and grading 6 miles of road of the Kerepeehi Block.

Twenty to twenty-five men have been employed on the Orongo Settlement since the 10th October on drain cleaning, improvement, and construction.

PATETONGA DISTRICT.

The metalling of the Patetonga Top Road is the principal new undertaking in this district. The road to be metalled is 350 chains in length, and the work is being carried out by the Department for the Hauraki Plains County Council as an unemployment relief work. About thirty men have been engaged on the work, which was commenced at the end of October. A new quarry has been opened up, half a mile of service road constructed, and 1,450 cubic yards of metal delivered on to 130 chains of reconstructed roadway.

Another relief work camp for twenty has been established in this district since January, and the men have been employed on road and drainage work and cleaning and deepening the Waikaka Canal. This is a somewhat difficult undertaking with hand labour, but very satisfactory progress is being made. The canal has been cleared of growth for a distance of 102 chains and approximately 3,300 cubic yards of silt and sand removed from the canal bottom.

Some dredging and clearing willows in the Piako River near the Patetonga Landing was carried out during the first four months of the year.

Drains of a total length of 3,437 chains were cleaned, and 3,260 cubic yards excavated in widening and deepening 82 chains of main drains.

STRUCTURAL WORK.

A road bridge, 40 ft. span, rolled-steel joists and hardwood abutments and decking, was erected on the Kairito Canal, and another of 44 ft. span, all hardwood, on the same canal. A 25 ft. span all hardwood bridge with pile abutments was constructed at the Orchard West Road crossing of the Pouarua Canal, and five small sill bridges of 18 ft. span were built on road drains.

A large two-barrel 5 ft. by 4 ft. concrete culvert with sluice-gates for controlling flow to the proposed drainage pumping-station on the Kerepechi Block was completed, and another similar structure is under construction. Two 4 ft. by 4 ft. single-barrel concrete-box culverts with flood-gates were installed in connection with the Miranda drainage scheme, also one 4-ft.- and one 3-ft.-diameter concrete-pipe culvert with flood-gates, and one 4-ft.-diameter concrete-pipe road culvert. Two 3-ft.-diameter low-level concrete-pipe culverts were installed on the Orongo Block, and several existing culverts lowered.

SURVEYS.

Engineering and land surveys carried out during the year comprised 2,000 chains of levels, 290 river cross-sections, rural land survey of 832 acres subdivided into eleven sections, compass survey of 625 acres, and topographical survey of 3,600 acres.

Current-meter measurements were continued at control points on the Waitoa and Piako Rivers, and daily gauge-readings showing the winter flow of these streams were recorded.

SUMMARY.

The total length of subsidiary drains constructed to date in connection with the Hauraki Plains drainage works is 749 m. 67 ch. The principal works carried out during the year under review are summarized as follows:—

	Length, Miles ch.	Excavation, Cub. yd.
Drains cleaned by manual labour	164 63	..
Drains widened and deepened by manual labour	22 63	27,831
Drains, new construction by manual labour	7 72	74,746
Stopbanks constructed by manual labour	3 5	17,455
Total excavation by manual labour		120,032
Streams and canals cleaned by manual labour	1 51	..
River and canal improvement, machine construction	11 51	200,954
Roads metalled and improved	1 50	1,450
Roads formed	9 45	..
Clay carted for ballasting peat roads .. .. .	..	5,862
		Number.
Fascines used for road-construction .. .. .	..	4,572
3-ft.-gauge tramway laid	0 53	..
Fencing	8 67	..
		Acres.
Area cleared of scrub .. .. .	..	312
Area sown in grass .. .. .	..	482
		Number.
Road bridge, 40 ft. span .. .. .	..	1
Road bridge, 28 ft. span .. .. .	..	1
Farm access bridge, 44 ft. span .. .. .	..	1
Access bridges, small .. .. .	..	5
Concrete-box culverts, 4 ft. by 4 ft., with flood-gates .. .. .	..	2
Concrete-pipe culvert, 4 ft. diameter, with flood-gate .. .. .	..	1
Concrete-pipe culvert, 3 ft. diameter, with flood-gate .. .. .	..	1
Concrete-pipe culvert, 4 ft. diameter .. .. .	..	1
Concrete-pipe culverts, 3 ft. diameter .. .. .	..	3

FLAX LEASES.

Some 6 areas, totalling 2,853 acres, are leased for flax-growing purposes at an annual rental of £400. During the year £74 was collected.

GRAZING-AREAS.

The area leased under temporary tenancies for grazing purposes totals 8,377 acres in seventy holdings at an annual rental of £553 17s. 8d. Rental collected amounted to £486 11s. 5d.

WORKS EXPENDITURE.

The total expenditure recorded totalled £17,121 7s. 2d. Drainage rates struck amounted to £2,114 12s. 8d., and £1,894 7s. 8d. was collected.

I have, &c.,

R. G. MACMORRAN, Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

HAURAKI PLAINS SETTLEMENT ACCOUNT.

RATE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1933.

<i>Dr.</i>	£	s.	d.	<i>Cr.</i>	£	s.	d.
To Remissions of rates	169	0	10	By Balance brought forward	1,076	8	6
Maintenance of completed works	1,509	9	10	Rates levied	2,114	13	8
Balance carried forward	1,615	9	10	Penalty, 10 per cent.	102	18	4
	<u>£3,294 0 6</u>				<u>£3,294 0 6</u>		

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

<i>Receipts.</i>				<i>Payments.</i>								
				Public Works	Consolidated							
				Fund.	Fund.							
				£	s.	d.	£	s.	d.	£	s.	d.
To Balance transferred from Hauraki Plains Account	44	10	4	By Drainage - works — Stop - banks, clearing channels and other expenditure incidental to conducting drainage operations (including formation and metal-ling of roads), materials supplied, &c.	10,477	19	1	..	..	..	..	..
Rates .. ..	..	..	..	Machinery and plant	13	13	0	..	..	..	..	..
Sales of land	1,501	1	6	Material and stores	1,677	2	8	..	..	..	..	..
Rents and grazing-fees .. ..	..	..	..	Fuel	1,965	17	11	..	..	..	..	..
Interest on sales of land .. ..	..	..	..	Maintenance of completed works .. ..	..	..	..	1,302	11	3	..	..
Artesian-well boring (repayment of advances, £11 11s. 8d.; interest on advances, £9 0s. 11d.) .. ..	..	..	..	Management and engineering expenses	1,619	18	4	..	..	..	..	..
Tram freights and ferry fares .. ..	..	..	..	Refund rent .. ..	..	..	..	3	6	8	..	..
Instalments on buildings .. ..	..	..	..	Discharged Soldiers Settlement Account: Recoupment in respect of merged transactions	4	1	8	20	19	0	..	..
Credits in reduction of expenditure	5,419	6	2	Kaihere Ferry expenses .. ..	..	..	..	196	8	0	..	..
Transfer expenditure to Treasury Adjustment Account .. ..	..	..	..	Costs of raising loans	156	7	0	..	..	..	..	..
Transfer expenditure to Public Works Fund	15,873	15	4	Transfer receipts to Treasury Adjustment Account .. ..	..	..	..	10,466	3	6	..	..
	<u>£22,838 13 4</u>				<u>£22,838 13 4</u>			<u>£11,989 8 5</u>		<u>£11,989 8 5</u>		

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

<i>Dr.</i>	£	s.	d.	<i>Cr.</i>	£	s.	d.
To Interest on Public Works Fund capital	36,892	0	3	By Accrued rent	9,346	8	3
Expenses, Kaihere Ferry	211	18	0	Interest on sales of land	643	9	1
Administration expenses	372	11	2	Grazing-fees	164	8	2
Remissions of rent	243	9	0	Ferry fares	206	9	0
Remissions of interest	25	7	5	Kaihere Ferry (half loss, recoverable from County Council)	18	1	7
Rebates	558	6	5	Royalties	2	10	0
Cost of raising loans	156	7	0	Interest allowed on sinking-fund contribution	380	10	10
Irrecoverable rents, &c.	526	1	1	Miscellaneous services	12	7	9
	<u>£38,986 0 4</u>			Net loss, carried down	28,211	15	8
	<u>£38,986 0 4</u>				<u>£38,986 0 4</u>		
To Net loss, brought down	28,211	15	8	By Balance carried forward	174,550	16	9
Balance from previous year	146,339	1	1		<u>£174,550 16 9</u>		
	<u>£174,550 16 9</u>				<u>£174,550 16 9</u>		

HAURAKI PLAINS SETTLEMENT ACCOUNT—*continued.*

BALANCE-SHEET AS AT 31ST MARCH, 1933.

<i>Liabilities.</i>				<i>Assets.</i>					
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
Capital Account—					Improved land handed over to Land Board for settlement—				
Public Works Fund ..	823,820	1 8			Leased	193,327	9 11		
Value of Crown land set apart under Act	45,000	0 0			Unleased	5,667	0 8		
			868,820	1 8	Unpaid purchase price for land sold on deferred payments ..	16,110	17 2		
Discharged Soldiers Settlement Account: Merged interests under section 20, Discharged Soldiers Settlement Amendment Act, 1923			429	17 2				215,105 7 9	
Sundry creditors—					Unimproved value of land not disposed of ..			42,025 4 1 1	
Miscellaneous	1,001	13 7			Improvements on adjoining Crown lands ..			7,710 0 0	
Departmental	28	18 11			Permanent reserves			8,851 0 0	
			1,030	12 6	Works in progress: Expenditure on land in course of reclamation, including formation and metalling of roads			533,111 3 8	
Rent charged in advance			2,493	0 0	Artesian wells—				
Rate Account			1,615	9 10	Crown tenants, Hauraki plains ..	421	10 9		
Payments in advance—					Permanent reserves and Crown lands	216	10 9		
Rent	41	19 3						638 1 6	
Deferred payments instalment (principal)	72	19 0			Buildings			5,050 6 11	
Interest on well boring	0	0 1			Wharves			3,761 0 0	
Deferred payments instalment (interest)	9	11 7			Machinery and plant			39,460 7 0	
Rates	10	15 3			Live-stock			43 8 6	
			135	5 2	Loose tools			730 0 9	
Suspense Account			65	7 7	Stores and fuel			4,063 8 5	
Writings-off in Suspense			490	3 0	Stamps on hand			1 1 0	
Treasury Adjustment Account			186,131	2 10	Sundry debtors—				
					Rent	3,734	13 10		
					Rates	3,414	8 0		
					Instalment (principal) on deferred-payment sales ..	161	16 10		
					Interest, deferred-payment sales ..	152	1 0		
					Law-costs	97	16 4		
					Interest on well-boring	111	16 9		
					Tram freights and ferry fares ..	80	18 0		
					Grazing	89	17 6		
					Miscellaneous	5,368	8 1		
					Departmental	1,094	0 9		
								14,305 17 1	
					Postponed rent			1,168 7 9	
					Postponed interest			99 1 6	
					Losses in suspense			490 3 0	
					Interest accrued but not due			152 0 0	
					Investment in Public Debt Redemption Fund ..			9,894 2 1	
					Cash in transit at post-office			0 1 2	
					Revenue Account: Balance forward..			174,550 16 9	
			<u>£1,061,210</u>	<u>19 9</u>				<u>£1,061,210</u>	<u>19 9</u>

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.

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