

1949  
NEW ZEALAND

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DEPARTMENT OF LANDS AND SURVEY

# SWAMP DRAINAGE

REPORT FOR THE YEAR ENDED 31st MARCH, 1949

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*Presented to Both Houses of the General Assembly Pursuant to Section 13 of the Swamp Drainage Act, 1915*

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SIR,— Department of Lands and Survey, Wellington, 22nd June, 1949.

In pursuance of section 13 of the Swamp Drainage Act, 1915, I have the honour to forward the report of the Chief Drainage Engineer covering operations on lands proclaimed under the Swamp Drainage Act and amendments.

I have, &c.,

D. M. GREIG,

Director-General of Lands.

The Hon. the Minister of Lands.

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## REPORT OF THE CHIEF DRAINAGE ENGINEER

SIR,—

I have the honour to submit my annual report for the year ended 31st March, 1949, on the areas proclaimed under the Swamp Drainage Act, 1915, and its amendments. Arrangements have been made for the field and engineering work associated with the Department's drainage activities to be undertaken by the Ministry of Works as from 1st April, 1949.

### KAITAIA DRAINAGE AREA (61,430 ACRES), MANGONUI COUNTY

The cleaning of main drains and repairs to flood-gates have been the principal activities carried out in this district during the year ending 31st March, 1949. Drains widened and deepened by manual labour include West's and Wild's Drains and portion of Matthews', Puckey's, and Reed's Drains.

A new  $\frac{3}{4}$ -cubic-yard drag-line excavator, which had been on order for nearly three years, arrived in Kaitaia on 9th February and commenced work on Puckey's Outfall. This machine will be employed on drain-improvement works, which will occupy about four years.

Consolidation of the peat land is causing drainage difficulties, particularly in the Lake Tangonge Basin, where the land-drainage and flood-control problems are inseparably connected. The permanent reclamation of this area will require further flood-control works of some magnitude, and preliminary surveys are now being carried out by the Ministry of Works.

The discharge-capacity of the Whangatane Spillway is being reduced by silting and growth in the bed of the channel. This has been the cause of some local flooding on the farmed land between Douglas Road Bridge and Quarry Road. The clearing of the spillway will be necessary in the near future.

*Expenditure and Rates.*—Maintenance expenditure charged against the Rate Account for the year amounted to £2,208.

Rates struck : Special, £2,732 ; general, £2,229.

Rates collected, including arrears : Special, £2,098 ; general, £2,263.

Rebates ( $33\frac{1}{3}$  per cent.) allowed on special rates on account of prompt payment amounted to £611.

Maori rates struck (gross) were £324. Of this amount, £211 has been paid, and rebates allowable amount to £58.

#### HIKURANGI DRAINAGE AREA (50,000 ACRES), WHANGAREI COUNTY

No work was carried out in this area.

#### WAIHI DRAINAGE AREA (20,000 ACRES), TAURANGA COUNTY

The flood-pumping station at the western end of the Waerenga Road was completed during the year. This station is designed to serve ultimately an area of approximately 800 acres contained in a figure formed by the Kaikokopu Stream, the Waerenga Road, the Wharere Canal, the Tainui Road, and the main highway. As at present constructed this station contains one 5,000-gallon-per-minute, electrically-driven, automatically-controlled flood-pump, and is designed to serve only the lower part of the above area. Provision is made for the installation at a later date of another similar pump when it becomes necessary to pump the drainage from the whole of the area. The principal work carried out during the year has been the installation of the pumps, motors, and electrical equipment, the construction of the necessary intake drains, and the cutting-off of the area not to be pumped at present, including provision for by-passing hill-water discharging on to the area. The pumping-station was completed and brought into operation at the end of June, and the final isolation of the area from the upland water discharging down Tainui Road was completed in February last. It should not be assumed from these remarks that the drainage of this area and the 400-acre block to the north of Waerenga Road is now complete. Further work and the installation of additional pumping facilities will be required. It would probably be advisable to defer these undertakings until the settlers take advantage of the legislation passed last session and petition to have the whole 1,200-acre block classified as a special rating area to enable capital and operating costs to be recovered by way of special rates.

At the request of the settlers of the Upper Pongakawa River Valley, the straightening, widening, and deepening of the Pongakawa River southwards from the railway-line was commenced during the year. Detailed engineering surveys of the river, and topographical and soil surveys of the peat-covered valley-floor, were completed, and in August tenders were called for the improvement of a stretch of one mile and a half extending southwards from the railway-line. A contract was let to a firm of excavating engineers who in November started work with a drag-line excavator. By the end of the year the first cut over the whole of this length had been completed, and the machine was returning down-stream removing accumulations of silt. A second contract has now been signed with the same firm for the improvement of a further stretch of 55 chains, and this work will be commenced in the near future.

The Department's No. 34 R.B. 10 excavator continued with the improvements to the Kaikokopu Stream, widening and deepening and removing accumulations of sand and forming this material into a stop-bank on the right bank between the road and the stream. Sixteen chains had been completed by the end of June and 3,200 cubic yards excavated. The machine, which was in a bad state of repair, was held up several times with breakages, and it was decided to transfer this plant to the Hauraki Plains and replace it with a new R.B. 19,  $\frac{3}{4}$ -cubic-yard excavator, which is a larger and more powerful machine. This new plant was found to be much more useful for excavating work in this district, where the heavy layers of buried timber proved too much for the lighter machine. The new plant started work constructing the inlet to the new pump-station, and after widening and deepening the drains leading into this inlet proceeded with the first stage of the construction of the stop-bank on the south side of the Tainui Road. This bank is designed to keep flood-water out of the pumped area. The machine deepened the remainder of the Tainui Road south side drain up as far as Section 35/51 drain, a distance of 73 chains in all, 35 chains of the northern end of 35/51 drain, 36 chains of Wharere Road west side drain, 5 chains of Waerenga Road south side drain, and 16 chains of Section 23/28 drain. By the time this was completed the work done on the stop-bank on the south side of Tainui Road had consolidated sufficiently for the second stage of this construction, and the stop-bank was completed and the pumping area finally isolated by the end of January. After deepening about 10 chains of the Tainui Road north side drain the plant was transferred to work on the Wharere Canal, where the machine is working down-stream from the railway-line removing the heavy accumulations of silt and sand which have so reduced the depth of this canal to cause flooding of the land on the east side. By the end of March 22 chains had been completed, and the work was proceeding satisfactorily. During nine months in the district the plant has handled a total of 23,730 cubic yards of spoil.

The normal amount of drain-maintenance work was carried out during the year. The total length of drains cleaned by hand-labour for the twelve months ended 31st March last was 35 miles 72 chains, of which 27 miles 26 chains was let on a contract basis and 8 miles 46 chains carried out on wages.

On the Wharere Development Block considerable progress was made during the year. Immediate advantage is being taken of the installation of the new flood-pump to re-establish good pasture on the area of Crown land immediately adjoining the pump. An area of about 170 acres is being cleared, cultivated, and sown in good grass. Adjoining settlers are also clearing and resowing areas previously only partly usable. The control of the development work has been transferred to the Superintendent of Land Development, Rotorua.

On the whole, a very good dairying season has been experienced in this area, and all stock and pastures have come through the year in very good condition.

*Expenditure and Rates.*—Expenditure on maintenance for the year amounted to £1,559.

Rates struck : Special, £765 3s. 5d. ; general, £1,607 13s. 2d.

Rates collected, including arrears : Special, £1,048 ; general, £1,867.

#### POUKAWA DRAINAGE AREA (15,567 ACRES), HAWKES BAY

Maintenance-work was carried out during the year, and I am indebted to the Commissioner of Crown Lands, Napier, for the preparation and inspection of drain-cleaning contracts and payments made to contractors.

*Expenditure and Rates.*—Maintenance expenditure charged against the Rate Account for the year amounted to £510.

Rates struck: Special, £1,002; general, £312.

Rates collected, including arrears: Special, £630; general, £190.

Applications for charging-orders for outstanding Maori rates came before the Maori Land Court at Napier towards the close of last year, and charging-orders were granted in most cases.

The amounts shown in this report as expenditure on maintenance may be subject to slight variation on completion of accounts.

I have, &c.,

E. TAYLOR,

Chief Drainage Engineer.

The Director-General of Lands, Wellington.

### STATEMENT OF ACCOUNTS

A statement of accounts is published in parliamentary paper B-1 [Pt. IV].

*Approximate Cost of Paper.*—Preparation, not given; printing (583 copies), £7.

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By Authority: R. E. OWEN, Government Printer, Wellington.—1949.

Price 3d.]