

1948
NEW ZEALAND

RANGITAIKI LAND DRAINAGE

REPORT FOR THE YEAR ENDED 31st MARCH, 1948

*Presented to both Houses of the General Assembly in pursuance of Section 10 of the
Rangitaiki Land Drainage Act, 1910*

Department of Lands and Survey, Wellington, 21st June, 1948.

SIR,—

I have the honour to submit herewith the report of the Chief Drainage Engineer on drainage operations on the Rangitaiki Plains for the year ended 31st March, 1948, pursuant to the provisions of the Rangitaiki Land Drainage Act, 1910.

I have, &c.,

D. M. GREIG,

Under-Secretary for Lands.

The Hon. the Minister of Lands.

REPORT OF THE CHIEF DRAINAGE ENGINEER

SIR,—

In accordance with the provisions of the Rangitaiki Land Drainage Act, 1910, I have the honour to submit a report of the work carried out during the year ended 31st March, 1948.

From the point of view of the farming community the year just closed should have proved a very satisfactory one. The rainfall has been fairly evenly distributed throughout the year. There were rather dry conditions after Christmas, but sufficient rain fell to keep pastures in good condition. There was heavy rain during July and some flooding from the Whakatane River. The Rangitaiki River, though high, did not overflow. The rainfall for the year ended 31st March, as gauged at Thornton, was 52.21 in., which fell on 106 days. This is slightly above the average, which over the last thirty years is 49.78 in. The wettest month was July with 7.49 in., and the driest February with 1.08 in.

Practically all the work carried out during the year has been confined to the usual maintenance and improvements of main outlet drains. As most of these drains cross peat areas and pass through sand ridges the annual cleaning for removal of weed-growth has to be periodically supplemented by deepening and the removal of silt deposits. This work is usually carried out with a drag-line excavator. At the end of the year there were six excavators employed in the district. One new plant, an R.B. 19 drag-

line, arrived during the year and has proved an excellent machine for this work. The R.B. 17 excavator which had been hired from the Public Works Department was returned at the end of February as it was no longer required. The dismantling, repair, and re-erection of the old Monighan excavator was continued during the year, and is now almost completed. Owing to shortage of staff and difficulty experienced in making all parts requiring renewal, the work of renovating this machine took longer than anticipated.

Each year it becomes more difficult to let contracts for annual drain-cleaning by hand labour, and more and more use has to be made of the tyne drag used with a light drag-line excavator as developed by the overseer at Thornton. This year about twelve miles of the larger drains were cleaned by this method. Several varieties of aquatic weeds are spreading very rapidly in this district. *Poa aquatica* is gaining a strong hold in the north-western area of the plains, and in the Orini Canal the spread of a species of water lily is proving very serious, the plants having almost blocked the canal and the flood-gate on occasions. Removing these weeds with a drag-line is very expensive, and efforts are being made to ascertain if they can be controlled by using some variety of the new hormone weed-killers.

The problem of accommodation for workmen has been slightly eased during the year by the erection of two houses in Thornton. Two old houses which were surplus to the requirements of development blocks in the district were acquired, dismantled, and re-erected at Thornton. With the addition of some new material where required, quite good houses were constructed, one being erected on the Rangitaiki River Reserve and the other on a quarter-acre section at Thornton which was purchased from a local settler. These additional buildings have not, of course, completely solved the problem of workers' accommodation. Many of the existing dwellings are very old and require enlarging and renovating. In some cases, due to the age of the buildings, renovation is not practicable and they will have to be replaced. It is hoped to proceed with this work next year. If any additional buildings are to be erected, further land will have to be acquired.

During the year the Hon. the Minister of Lands gave his approval to a Committee of three ratepayers being set up to co-operate with the Department in all matters affecting the ratepayers' interests. Regular monthly meetings of the committee and departmental officers have been held at Thornton. The innovation has proved very useful and has been of great assistance both to the Department and to the ratepayers, as it enables drainage problems to be discussed and decided to the best advantage of both parties.

A certain amount of work had to be carried out again this year on repairing breaches in the left bank of the Tarawera River north of the railway-line. The river has always overflowed to some extent along this stretch, and work is confined to such as is required to prevent a major break in the bank. On the Rangitaiki River several bends were widened during the year, and the stopbanks on both sides north of Thornton are being repaired and raised where they have been undermined by erosion. Other work on this river has consisted of the cutting of willows and clearing of fallen trees. For several years the river has been discharging straight out to sea, but the mouth, by moving eastwards, is again giving trouble. If the right conditions prevail next year efforts will be made to open a new channel through the sandspit which is forming from the western side across the present mouth.

In addition to the routine work of measuring dredge quantities, laying out drain work, and attention to automatic stage-recorders, the survey party has erected one new automatic river-stage recorder on the Orini floodgate. The topographical and soil survey of the district has continued, and the field-work of an investigation survey

of the upper Rangitaiki River to determine the possibility of establishing a flood control dam on the river in the gorge above Te Teko has been completed. The topographical survey of the eastern part of the plains is now complete, and a report prepared covering proposals for improved drainage for this area.

Drain work completed for the year was as follows:—

Drains widened and deepened by hand on wages	..	15 ch. 340 c. yd.
Drains cleaned by hand on wages	..	720 ch.
Drains cleaned by hand on contract	..	7,932 ch.
Drains cleaned by weed-cutter launch	..	906 ch.
Drains cleaned by excavator with tyne drag	..	960 ch.

Other work carried out during the year included the demolition and re-erection of fencing, the cutting and removing of trees to allow passage for the excavators, the cutting of willows, blackberry, and gorse from river and drain banks, the planting of willows and placing of fascines for protection of eroding river-bank and the construction of eight culverts of various sizes, one small bridge, and one larger access bridge.

The depot and workshop staff has been fully employed attending to repairs and maintenance of excavators, tractors, trucks, launches, &c., and the repair and maintenance of buildings. As several of the trucks are now very old their maintenance is becoming very costly. One new 15 cwt. truck was secured during the year, but further transport will be required next year.

EXPENDITURE AND RATES

Expenditure on maintenance for the year, £16,667.

Rates struck: Special, £10,508; general, £11,508.

Rates collected, including arrears: Special, £11,997; general, £12,106.

The amount shown as expenditure on maintenance may be subject to slight variation on completion of accounts.

MAORI RATING

The total Maori rates paid, including arrears, during the year under review was £2,144. Maori rates levied for the year 1947-48 amounted to £2,285.

I have, &c.,

E. TAYLOR,

Chief Drainage Engineer.

The Under-Secretary for Lands, Wellington.

STATEMENT OF ACCOUNTS

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

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