

1919.
NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY:

SWAMP DRAINAGE.

REPORT FOR THE YEAR ENDED 31st MARCH, 1919, TOGETHER WITH STATEMENT
OF ACCOUNTS.

*Presented to both Houses of the General Assembly pursuant to Section 13 of the Swamp Drainage
Act, 1915.*

SIR,—

Department of Lands and Survey, Wellington, 14th July, 1919.

In pursuance of section 13 of the Swamp Drainage Act, 1915, I forward herewith the report of the Chief Drainage Engineer upon the operations carried out under the above Act for the past year, together with a statement of accounts and balance-sheet.

I have, &c.,

T. N. BRODRICK, Under-Secretary.

The Hon. D. H. Guthrie, Minister of Lands.

REPORT BY CHIEF DRAINAGE ENGINEER.

SIR,—

I have the honour to submit annual reports on the three areas proclaimed under the Swamp Drainage Act, 1915. No new areas have been proclaimed during the past year, but some are under consideration.

KAITAIA DRAINAGE AREA (39,665 ACRES).

The outstanding features of the year have been the comparatively mild winter, the small number of floods, and the exceptionally fine summer. The rainfall for the year recorded by the gauge at Kaitaia was 47.30 in., the greatest fall for one month being 9.06 in., during October. With only slight interruptions it was possible to work throughout the winter by hand-labour, although team-work had to be abandoned for three months. However, speaking generally, a very fine year's work has been done and great advantage taken of the good summer.

The early portion of the year saw much difficulty in securing first-class labour, and men could not be obtained from any quarter. It was hoped, however, that this would be overcome by the placing of a number of Jugo-Slavs on the work. Unfortunately, these men have not turned out as great a success as was expected, and there has been continued friction since their arrival. It is well known that they are expert spademen, but by adopting frequent go-slow tactics the cost of their work has been somewhat higher than a similar class of work done by European gangs. At date of writing, however, a very marked improvement is noticeable. At the beginning of the summer quite a number of British workers (including several returned soldiers) were obtained and good gangs made up.

The work is divided into the various divisions as follows:—

Kaitaia River Diversions.—The year began with three spillways completed and one partly completed. These spillways have been pushed ahead, and I now have to report twenty-one completed. Of these some four have been done by Slav labour, two by British gangs, and the remainder by wheel scoops. Those cut by hand-labour are made through low swampy country unable to be worked by teams, or short cuts and points too small for team-work. On the other hand, as the teamsters became accustomed to their work several cuts considered almost unworkable have been carried through entirely by teams. Slavs have been employed trimming batters after all possible team-work had been done. Some 53,500 cubic yards have been removed from the cuts during the year.

Kaitaia River-bank Work.—The whole river from Awanui to the dredge-site has been widened out to its new section, and lined out in advance of the dredge to an average depth of 4 ft. This work entailed cutting points and straightening the river-channel, and was carried out by Slavs and a British gang by means of wheelbarrows, scoops, &c. About 48,500 cubic yards have been removed in this work. On several occasions it was possible to put scoops on, but bullock teams were soon found to be too unwieldy, and latterly horse teams have worked on points and long "slices."

The new river from the dredge-site to Awanui Landing is 9 miles 30 chains, shortening the old course by 3 miles 60 chains. The good effect of the widening has been greatly felt during the heavy freshes, but the greater number of the cuts have not so far been "christened," thanks to the low rivers of the past three months.