

In Canterbury the low summer rainfall last season created a greater demand for water than previously. A further 1,066 acres of land on the Ashburton-Lyndhurst scheme have been prepared for irrigation by the border-dyke method, bringing the total completed up to 4,229 acres. Construction work on the Mayfield-Hinds scheme has slowed down because of the shortage of plant and labour.

Work on the Wellington water-supply scheme has been continued. The longest tunnel (9,000 lineal feet) has been driven for two-thirds of its length and good progress has been made with the remaining tunnel work. On the Haywards-Paremata Main Highway, much of the alignment and width have been improved to modern highway standards on the length where the pipe-line will be placed; 4 miles of pipe-bench have been formed between Judgeford and Takapu Road. Tenders have been called for fabricating and laying the pipe-line (34 miles of 30 in. and 36 in. pipe). Only one tender was received, and this has been declined because it was considered too high. Discussions are proceeding between officers of my Department and the Wellington City and Suburban Water Board in an endeavour to solve the difficulty presented. Unfortunately, the root of the problem is the world shortage of steel plate, of which 10,000 tons are needed for the pipe-line. If the delivery rate remains as at present, and there appears little hope of improvement for some time, it is anticipated that work on this project, which, under normal conditions, would have been completed in three years, will now take six or seven years.

LAND IMPROVEMENTS

Further progress has been made with sand-dune reclamation by tree-planting in the North Auckland and Manawatu districts.

Land-clearing by machinery has been continued in the Ohakune, Westport, and Southland districts. Stumping forms the major part of this work, but in Southland 16 $\frac{3}{4}$ miles of access roads have been formed and a similar length of swamp drainage channel have been excavated for farmers under the scheme, in addition to a large acreage cleared.

COAL-PRODUCTION

The Public Works Department, with its heavy mechanical plant, has assisted materially in the production of opencast coal. The Department's plant has continued to work at Glen Massey, Waitawhenua, Stockton, Ohai, and Wangaloa, and is now also being used at Kapuka, in Southland.

LIGHTHOUSES AND HARBOUR-WORKS

The usual maintenance work on lighthouses and Diesel-electric lighthouse plant has been carried out. The necessary equipment for the electrification of North Cape, Chickens Island, Channel Island, Cape Egmont, and Motuara Lighthouses was delivered during the year and the work of electrification is proceeding.

Wharves on Hokianga Harbour were repaired.

A slipway for fishing-vessels at Karitane was completed.

PLANT AND MACHINERY

Repair and maintenance of construction plant constituted a major portion of the past year's work, and the new repair depots at Mangere and Sockburn are now operating. Some idea of the magnitude of the repair work undertaken at the Department's plant depots can be gauged by the fact that it has 9,250 plant items in use. The mechanization of the Public Works Department during the last decade has not only revolutionized the methods of construction, but has also shortened the period of construction on most projects and made work less costly than hitherto.