

on the upper reaches of the Waikato River, with a corresponding reduction in road haulage, while timber from exotic forests in the vicinity will be railed out from Tokoroa. Surveys are being carried out with the object of improving alignment and gradients.

Trial surveys have been carried out for a possible extension of the railway beyond Tokoroa as far as Reporoa with a view to tapping large afforested areas, and there have been discussions between the Commissioner of Works and the several interested Departments concerning the most suitable rail access to the forests on the Kaingaroa Plains and adjacent areas.

I am pleased to say that, in spite of cement shortage, relining and grouting of Turakina Tunnel was completed by July, 1946, and work is rapidly nearing completion on the Fordell Tunnel.

My engineers have made exhaustive engineering surveys to decide on the final location of the Rimutaka Tunnel and approaches. The technical and financial aspects have received very close study by the Commissioner of Works and the Public Works and Railways Departments. In earlier reports it was envisaged that the tunnel portal at the east end would be near Cross Creek, but with further surveys carried out it has been established that Lucena Creek (3 miles north-east of Cross Creek) is more advantageous for the east portal. Officers of the Lands and Survey Department have been engaged on a precise survey. Orders for the substantial plant required have been placed, and it is hoped that sufficient trained tunnelling personnel will be available to make a start on the underground work as soon as this plant arrives. Difficulties in regard to the dollar position have necessitated placing orders in Great Britain, with consequent delay in delivery.

The Hutt Valley Railway is operating now as far as Taita. Eventually the line will be extended to join up with the existing Wellington—Upper Hutt Railway at Silverstream. Full consideration has been given to the best location for continuing the line through the Taita Gorge, and it has now been decided to cross to the west bank of the Hutt River in the vicinity of Haywards and pass through the Gorge along the present route of the railway line.

On the South Island Main Trunk the Railways Department is running a full passenger and freight service and has taken over ordinary maintenance, although some cleaning up still remains. A major work on this line almost completed during the year is the stop-bank protection on both banks of the Hapuka River up-stream of the railway bridge. A reinforced-concrete overbridge carrying the highway over the railway at Oaro has been completed during the year. In view of the characteristics of the country through which some of the tunnels have been driven it has been deemed prudent to pressure-grout behind the linings of these tunnels to ensure maximum stability. A sea-wall (1,400 ft. long) in the vicinity of Oaro is almost complete; the wall skirts the toe of an unstable bluff that is creeping towards the sea very gradually, and the line can now be deviated easily at this point should it become necessary.

AERODROMES

The year has seen a very definite reversion of aerodrome activities from wartime to civil usage. This has resulted in a period of planning for future development pending a clarification as to civil aviation policy. There has therefore been little new construction on New Zealand aerodromes, and work has been confined chiefly to maintenance. At Milson temporary buildings have been erected and altered to accommodate civil aviation and meteorological staff, and at Hokitika a start has been made on the new Seaview Airfield.

In the Pacific a number of airfields that will be required for the New Zealand regional or international service have been taken over from the American Forces and are being maintained by key New Zealand staff using local and Native labour.