

APPENDIX B.

ANNUAL REPORT ON PUBLIC WORKS BY THE ENGINEER-IN-CHIEF.

The ENGINEER-IN-CHIEF to the Hon. the MINISTER OF PUBLIC WORKS.

SIR,—

I have the honour to submit the following report upon the various public works completed and in progress throughout the Dominion during the year ended 31st March, 1942.

RAILWAYS.

Dargaville Branch Railway.—Except for buildings at Dargaville, this work is complete, and a goods and passenger service is now being operated by the Railways Department.

Paeroa-Pokeno Railway.—Construction was suspended in 1940, and work during the year has been confined to maintenance.

Turakina-Okioia Railway Deviation.—The only works to complete this deviation are ballasting, platelaying, erection of station buildings, and completion of the superstructure of the bridges over the Turakina and Wangaehu Rivers.

Napier-Gisborne Railway.—The greater part of the construction was completed, and included the completion of the last two tunnels, and four bridges over the Waiau Stream. One of these bridges is 530 ft. in length, with a central arch of 180 ft. span, the longest reinforced-concrete arch span in a railway bridge in New Zealand. There is a gap of only 2,480 lineal yards in the platelaying, and it is anticipated that this will be linked up to take traffic this year.

South Island Main Trunk Railway.—Work on most of the construction is suspended, activity being confined to maintenance and to heavy protection works for the bridges over the Clarence and Hapuku Rivers.

Over a distance of 13 miles between the pegs approximately 3 m. north of Kaikoura and 7 m. north of Hundalee respectively, the uncompleted sections of formation total $5\frac{1}{4}$ miles, a considerable amount of which is well advanced.

Progress during the year has included the completion of bridges over the Waimangarara Stream, Middle Creek, and Oaro Streams, and the Okarahia Viaduct. Repairs have been carried out to the Amuri Tunnel, but work on other tunnels and on four other bridges has been suspended.

Westport-Inangahua Railway.—The official ceremony of driving the last spike took place on 2nd December, 1941. Only a small amount of formation, ballasting, buildings, and bridge work is required for completion.

IRRIGATION.

Central Otago.—The rainfall before the irrigation season was very light, but good rains were experienced from November, which enabled the irrigation to proceed without the rationing which was anticipated at the commencement of the season.

The usual maintenance was carried out, the major items being the relocation of 1,040 ft. of 33 in. pipe-line on the Arrow Scheme, and the renewal of 712 ft. of steel pipes with reinforced-concrete pipes on the Teviot Scheme.

Irrigation water was supplied to 509 irrigators, and the total area irrigated was 52,620 acres, out of a total commanded area of 64,000 acres.

Financial results of the year's working are as follows: Revenue, £27,600; working-expenses, £22,550; profit on working, £5,050; total rates collected, £26,430.

On the Omakau Scheme, where the water is sold on demand, the total sales were 9,980 acre feet, or an increase of 1,200 acre feet on the previous year's total. This increase is particularly encouraging.

Canterbury.—On the two operating schemes, Redcliff and Levels, there was a fall in revenue compared with the previous year. These schemes are operated on the demand basis, and the fall in revenue is due to the shortage in farm labour and the uncertain outlook due to war conditions, preventing farmers from embarking on the expenditure necessary to change their farming methods at present.

Irrigation water was supplied to 65 irrigators, who irrigated 3,400 acres of the 27,400 acres for which water was available. The financial results were as follows: Revenue, £605; expenditure, £2,222.

Downs Water-supply Scheme: This scheme is completed with the exception of 10,453 acres of pipe reticulation in the Pareora district, for which there are no pipes available.

The total number of 834 farms, comprising 135,244 acres, are now receiving water in addition to Pleasant Point Township. The scheme includes the construction of six reinforced-concrete reservoirs, 58 miles of mains and sub-mains, and 612½ miles of galvanized reticulation piping.

SCHEMES UNDER CONSTRUCTION.

Ashburton-Lyndhurst Scheme.—Races completed, 132 miles, reinforced-concrete structures, 1,823, or 94 per cent. of total required to regulate the supply of water.

Mayfield-Hinds Scheme.—Some progress was made during the early part of the year, including 79,300 cubic yards of race excavation and the construction of 48 concrete structures.

The progress on both of these schemes is at present almost suspended, due to the diversion of labour and plant to urgent military works.

Rangitata Diversion Race.—This 42-mile diversion canal is nearing completion, and the available labour and plant is being kept on with a view to completing the work, to enable the water to be supplied to Highbank Power Scheme next winter.

The principal progress is the completion of the large 12-ft.-diameter reinforced-concrete conduit at Surrey Hills, the intake work, the large reinforced-concrete syphons under the South Hinds, Taylor's, South Bowyer, and North Bowyer Streams, and the Ashburton River.

Canterbury Irrigation Investigation.—This work has been considerably curtailed, but the important continuous records have been maintained.