

Progress generally has been governed by the availability of men and materials, the number of workmen employed directly by the Department having decreased at the end of the period by more than one-half of the number employed at the beginning of the year.

Altogether 235 miles of road were formed and 400 miles were metalled by the Department and by local authorities in receipt of grants and subsidies from the Government. In addition, 8,395 lineal feet of bridging was completed, and culverts totalling 32,312 ft. in length were installed.

The net expenditure from the "Roads" vote of the Public Works Fund for the year ended 31st March, 1941, was £599,013, the corresponding figure for the preceding year being £1,124,590.

IRRIGATION AND WATER-SUPPLY.

Steady progress has been maintained on this phase of development work. The completed schemes continue to function well and the area irrigated shows a slight increase on the previous total.

In Otago, thirteen completed schemes are in operation and 52,106 acres were irrigated, out of a total commanded area of 64,000 acres. The annual revenue amounted to £26,730, being £834 in excess of last year's revenue.

In Canterbury, two completed schemes are in operation where 3,350 acres were irrigated, out of a total commanded area of 17,403 acres. The annual revenue amounted to £844, being £157 in excess of last year's revenue. The increase in the use of the Canterbury schemes is below expectation, but this is probably due to reluctance of farmers to prepare their land for irrigation during the war period.

The year's construction activity was confined to the continuation of the large Canterbury schemes which will derive their water-supply from the Rangitata River diversion race.

Work on the Rangitata irrigation and hydro-electric power water-race was continued during the year, and the excavation work is in an advanced state of completion over a length of 40 miles. The total excavation now amounts to 3,220,000 cubic yards, of which 939,000 cubic yards were excavated during the year. The total number of concrete bridges, syphons, and regulating structures now completed on the race is eighty-five, of which fifty-nine were completed during the year. The large intake structure is nearing completion, and the large pressure syphon at Surrey Hills is well in hand. This latter structure is nearly $1\frac{3}{4}$ miles long, and is made up of precast reinforced-concrete pipes 12 ft. in diameter and 12 ft. long, each pipe weighing 28 tons. These pipes are manufactured in a specially-designed pipe-factory near the site of the works.

The construction of the Ashburton-Lyndhurst Scheme, 34,000 acres, and Mayfield-Hinds Scheme, 54,000 acres, has been continued as circumstances permitted; the former scheme is now 94 per cent. completed and the latter scheme 40 per cent. completed. The construction of these schemes is subservient to the completion of the Rangitata diversion race, and labour and materials have been diverted temporarily to this major work.

The operation of a demonstration area on the Ashburton-Lyndhurst Scheme was continued, and last year the average number of sheep carried per acre was 9.96, while 14.1 sheep per acre were carried during the irrigation season.

The Downlands Water-supply Scheme is now in an advanced state of completion, and 700 farms, comprising a total of 109,000 acres, are now being supplied with water for domestic and stock purposes. Pleasant Point Township is also served with a water-supply and fire service. The length of mains and submains laid is 37 miles, or 70 per cent. of the total, and the length of galvanized reticulation piping laid is 572 miles, or 82 per cent. of the total. Five of the six reservoirs are