## WATER-SUPPLY

Downlands Water-supply Scheme.—Normal maintenance has been carried out, and some remedial work, consisting of underpinning the main with concrete columns, was done near the intake.

At the Levels Farm Settlement an area has been reticulated for the Lands Department.

Wellington Water-supply. While good progress is being made with the driving and lining of tunnels, failure to obtain adequate and regular supplies of steel for the pipe-line is having a serious effect not only on the progress but also on the economics of the scheme.

Tenders were called early in the year for the fabrication of the whole 33 miles of the pipe-line and the laying of 10 miles of its length, but no satisfactory tender was received, due undoubtedly to the uncertain steel situation.

Out of a total requirement of 10,000 tons of steel only 340 tons are held in stock, and the prospects of obtaining adequate supplies in the near future are poor. Arrangements have been made to have this small quantity made up into pipe. Contracts have been let, but work has not yet started. It will make up into I mile of pipe, which it is proposed to lay through Upper Hutt.

The delays so far have resulted in postponing the estimated finishing date for the whole scheme from 1952 to 1956 at the earliest, and as the existing water-supplies cannot cope with the increasing demand until the latter date, temporary supplies will have

to be resorted to in three instances, as follows:--

At Upper Hutt, to meet the domestic needs of the southern portion of the borough and the fire protection requirements of military and other interests in Trentham Camp, a permanent reservoir is to be constructed at Trentham, and until water from the main scheme reaches Upper Hutt it will be supplied from an existing well in Trentham Camp.

Similarly, a permanent reservoir is to be built at Porirua, supplied temporarily from local sources, to meet the needs of State housing development at Titahi

Bay and Porirua.

To meet the needs of Wellington City, additional pumps are to be installed by the city at Gear Island to deliver water into the Orongorongo main.

Steady progress on tunnelling culminated in March in the piercing of the two headworks tunnels, 2,226 ft. and 9,102 ft. long respectively, and arrangements are now in hand to line them with concrete. In addition, three shorter tunnels aggregating 3,545 ft. have been driven and lined with concrete, while 925 ft. of the remaining 1,400 ft. tunnel has been driven.

At the headworks a commencement has been made on construction of the weir. Over 1,000 cubic yards of rock have been excavated and an overhead ropeway and concreting plant is being installed.

Investigations.—Numerous investigations have been carried out into small community and rural schemes. A water-supply for 30,000 acres of farm settlements at Reporou was investigated and reported upon with designs and estimates for the Lands Department. A similar scheme for 25,000 acres at Ruawai was investigated in collaboration with a consulting engineer.

## COAL-PRODUCTION

Work on opencast mines has continued at Waitewhenua, Glen Massey, Ohai, and Wangaloa. New workings have been opened up at Hillcrest and Rotowaro, and stripping has been carried out for the Mines Department at Mossbank. Details are as follows:

At Waitawhenua, stripping and coal-production has continued. During the year 158,050 cubic yards of overburden were removed and 42,915 tons of coal extracted. The quantities to date are 657,215 cubic yards of overburden and 151,054 tons of coal.