

Valley and the bays on the eastern shore of the harbour. Both sub-areas are fairly widely spread. That comprising Wellington City and its immediate environs is for the most part hilly and is not convenient for the purposes of distribution. The Hutt sub-area is for the most part flat and, apart from the limited population on the hills fringing the valley and the bays, presents conditions favourable to expeditious distribution.

DEMAND

Population

According to estimates published in the 1942 issue of the Year-Book the total population of the metropolitan area on 1st April, 1941, was 160,500, of which 36,020 persons were living in the Lower Hutt City and the Boroughs of Petone and Eastbourne. In addition to this population the liquid-milk industry in this centre has to supply the needs of shipping, of men of the Armed Forces, and of children in schools outside the area which draw milk from the area. The quantities required for shipping are considerable, but neither these quantities nor those for the Armed Forces can be exactly computed. The number of children in outside schools for whom provision is expected is 2,907 and half a pint of milk is required for each child on each school day.

The following figures for the whole metropolitan area taken from the Year-Book indicate the growth of the population:—

1911	82,800	1926	121,527
1916	95,235	1936	149,382
1921	107,488	1941	160,500

These figures show a fairly uniform increase of approximately 2,500 per annum over the thirty-year period. Some variation may be due to the irregular development during some periods of districts just outside the urban area and to the inclusion at other times of such districts in the area. In estimating future requirements the continuance of this growth, with a corresponding increase in attendance at outside schools and an increase in shipping requirements, must be taken into consideration. The requirements of the Forces will ultimately drop rapidly, but against this must be set the demand of a large body of our own Forces returning to civilian life. And, perhaps more important than these movements, may be the stimulus to increased consumption per head of the population imparted by the teachings of nutritionists and the appeals of health authorities.

Present Consumption

The Milk Department of the Wellington City Council has supplied a return of milk sold by the Department year by year during the five years ending 31st March, 1943. This return is as follows:

Year ended 31st March,	Milk, in Gallons.	Cream, in Pints.
1939	2,628,953	419,257
1940	2,917,437	474,664
1941	3,063,021	481,992
1942	3,107,306	530,872
1943	3,883,638	665,145

The nearby farmers have not kept accurate records of their sales, but they supplied an estimate of the daily gallonage sold during the month of August, 1942, at 2,986½ gallons. This is an estimate only. Probably a general statement that the sales average between 2,500 and 3,000 gallons per day or between 900,000 and 1,000,000 gallons per year is the only one that can be made with any justification. The Milk Department, however, supplied 74,190 gallons of milk and 91,981 pints of cream to nearby farmers during the twelve months ending 31st March, 1943, and as this is included in the total sales of the Department only the balance of the nearby farmers' sales is to be added to the Department's figures in arriving at the total sales. Computing the daily sales by the Department and adding those by the nearby farmers we have as the total average daily sales during the twelve months under review of something over 13,000 gallons of milk and about 2,000 pints of cream. The Hutt Valley and bays' consumption is distributed by vendors, producer-vendors, and the Wellington Dairy Farmers' Association. The daily output, in gallons, by members of the Hutt Valley and Bays' Milk Vendors Association has been returned to the Commission as 3,371¾ gallons, or 1,230,688 gallons per annum. The greater part of this is supplied by the Wellington Dairy Farmers' Co-operative Association, Ltd., who, in addition, supply 800 gallons per day, or 292,000 gallons per year, to shops for resale and further quantities to camps and shipping. During the year ended 31st March, 1943, the association supplied to the last-named two groups a total of 223,173 gallons. Adding the quantities sold by the association to shops, shipping, and camps to the quantities sold by the vendor members of the association, we have the total of the sales during the year ended 31st March 1943 of 1,745,861, or 4,783 gallons per day. The grand total for the metropolitan area—that is, of the Wellington and Hutt Valley sub-areas combined—when cream is computed as gallons of milk works out at over 7,500,000 gallons per annum, or over 20,548 gallons per day.

Prospective Expansion of Demand

Though complete figures showing the expansion of demand during recent years are not available the returns from the Milk Department of the Wellington City Council for five years and those from the Wellington Dairy Farmers' Association for three years give an indication of the expansion of consumption. The Department's figures are quoted above. The totals from the Wellington Dairy Farmers' Association for the three years ending 31st March, 1943, are as follows:—

Year ending 31st March, 1941	1,073,567
Year ending 31st March, 1942	1,171,019
Year ending 31st March, 1943	1,365,814

As these figures, as well as those of the City Council, include the very irregular supplies to camps the inference to be drawn from the figures must be guarded. But, so far as the Dairy Farmers' Association's figures are concerned, if the supply to shipping and camps were entirely eliminated, the increases between 1941 and 1942 would be 48,260 gallons and that between 1942 and 1943 would be 159,424. But even in this respect the special demands of milk-bars and institutions qualifies the result.

A better guide is probably to be found in the increase in population, both in towns and in schools, with its reaction on other matters such as shipping and visitors. In this connection three factors have