

POPULATION

30. (1) As has been mentioned, it is difficult and perhaps impossible to make any satisfactory estimate of the future population of the district or its distribution. Nevertheless, the attempt to do so must be made as these factors play an essential part in the planning of a sewerage system.

(2) Mr. Porter's "Memorandum on Basic Technical Data" contains tables showing in respect of the different parts of the sewerage districts (excepting the Eastern), the estimated urban area, the present population, and also his estimates, and those of the Town-planning Officer of the population in the year 2000. It is unnecessary to set out the details here, but we should mention the totals of the population estimates. They are as follows :—

					Town-planning Officer.	Mr. Porter.
Central	..	..	..	..	337,000	300,000
Southern	..	..	..	..	116,000	130,000
Western	..	..	..	..	58,000	80,000
Northern	..	..	..	..	110,000	95,000
Totals	..	..	..	..	621,000	605,000

(3) The Town-planning Officer has not submitted any estimate for the Eastern Sewerage District because he assumes that it will remain a rural area, but Mr. Porter considers that part of the district will be developed to urban standards and he estimates that the population by the year 2000 will amount to 20,000 persons.

(4) We consider that it is reasonable to assume that the population of the sewerage districts in the year 2000 will approximate the estimates given above, and that in the circumstances the differences in the estimates are not important. We also consider that the population estimates for the various parts of each sewerage district contained in Mr. Porter's "Memorandum" should be adopted as a general guide notwithstanding certain differences between the estimates.

DETERMINATION OF QUANTITIES OF SEWAGE TO BE DEALT WITH

31. (1) The quantities of sewage to be collected and disposed of by a sewerage system depend upon—

- (a) The estimated connected population.
- (b) The volume of ordinary domestic sewage contributed by each person.
- (c) The volume and quantity of trade wastes to be discharged into the sewers.
- (d) The amount of rain, storm, or ground water that enters the sewers.

(2) It is acknowledged by all sewerage engineers that the rate of discharge of domestic sewage increases as the consumption of water per head increases. The consumption of water is greater in countries where water is plentiful—*e.g.*, United States of America—and the quantities of sewage per head of population are greater, but the strength of the sewage, being more diluted, is weaker.

(3) We have already referred to the population estimates contained in Mr. Porter's "Memorandum" of September, 1948, and have stated that we consider that they should be used as a general guide.

(4) As regards the assessment of the quantity of domestic sewage discharged per head of connected population, we consider that this must be left to the Drainage Board. However, on the information now available, we agree that Mr. Porter's assessment of 50 gallons per person per day, due allowance being made for trade wastes, would appear to be reasonable. As stated above, the quantities of domestic sewage are likely to increase in the future, but as adequate provision is being made for the greater flows which always occur in wet weather there will be no difficulty in collecting and disposing of the increased future quantities.