



12

PUBLIC UTILITIES

Melbourne's public utilities - its roads and streets, its suburban rail and tram systems, its electricity, gas and telephone services, its water supply, sewerage and drainage systems - represent public investment on an enormous scale.

The strategic objectives seek to optimise usage of existing public utilities. The needs of people must always take precedence over the needs of utilities and one of the reasonable needs of people is to hold down the costs of utilities to an acceptable level. Optimum usage will help slow down the rate at which the community needs to find capital for extensions to existing services and, in turn, the financial demands made on individuals.

12.1 Concerns

Three major problems face those concerned with providing utility services for the people of Melbourne.

Low densities: The low densities at which 'New Melbourne' has developed in the last 30 years have led to steadily rising costs in providing transport, roads, water, sewerage and other utility services, because of the extensive mains systems needed. This cost burden flows on to the cost of housing. The strategic objective of providing greater housing density, in at least some parts of future developments on the fringe, will ease this problem and help reduce the extent to which the services infrastructure adds to the cost of housing.

Falling populations: Many parts of the established suburbs now have smaller populations than those for which their services were designed. These facilities have available capacity which can be brought back into use. Encouraging greater density of housing, population and activity in these suburbs will enable this to occur. It will also help reduce the extent to which new services add to the cost of housing.

Need for replacement: Some of the service infrastructure in the older inner parts of the city needs replacement. Higher density activity in these areas will make such replacement more economically feasible. It will also provide the opportunity to increase service capacity and hence lower its unit cost.

All of these concerns are shared by the various authorities who provide public utilities for the people of Melbourne, and the advantages of greater densities will apply to all of them.

The comments that follow, however, are limited to those services provided by the Board: water supply, sewerage and drainage.

12.2 Water Supply

Greater density has potential for holding down the capital costs of water supply in ways that vary from place to place.

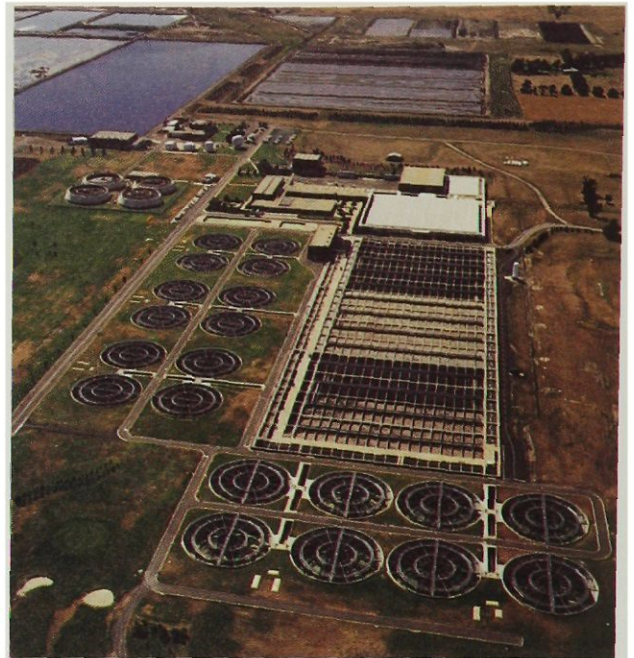
In new development on the fringe, greater density will reduce the cost of the reticulation system relative to the number of households and people served.

Redevelopment and infill development in the established areas will in many cases be able to tap into existing water supply services without the need for increased capacity in the distribution system. An increase in demand of up to about 10 percent can often be absorbed by the existing network. Incremental capacity additions to the reticulation network can usually be made at reasonable cost, notably in the east and south. Defined areas in Fitzroy, Preston and Heidelberg could accommodate large scale redevelopment without new major distribution works. Many other areas could accommodate a certain amount of moderate density redevelopment without causing immediate supply problems.

Scattered redevelopment in many residential areas would not affect supply to that area. Some redevelopment may create a need to upgrade mains of 100 mm or smaller diameters.

Major redistribution works would however be needed in many areas for anything more than scattered or minor redevelopment. These include Coburg, suburbs west of the Maribyrnong River and along Port Phillip Bay.

The cost of supplying water to Melbourne's western suburbs is higher than to the east. This is partly because most of Melbourne's water comes from high areas east of the city, and longer mains are needed to take it to the west. It is also partly because the flat terrain there leads to a need for greater local storage to accommodate peak loads.



The required total capacity of Melbourne's water supply distribution system is very much dictated by short term peak demands for garden watering on a few hot summer days. Greater density of housing in an area will add to its population without necessarily adding to the area of garden and lawn to be watered.

12.3 Sewerage

Greater density also has potential for holding down the capital costs of the sewerage system in ways that vary from place to place.

The same general considerations apply to sewerage as to water supply. Greater density in fringe development will reduce the cost of the system relative to the number of households and people served. In redevelopment and infill development in the established areas, greater density will in many cases be able to use the existing services without the need to augment the local reticulation system.

The South-Eastern Purification Plant, with associated trunk and relieving sewers, has now facilitated sewage disposal from most eastern and southern suburbs. In the northern and western areas, collection and transfer remains a problem, particularly in wet weather, when stormwater infiltration of sewers increases the volumes which must be dealt with.

Some older parts of the system draining to Werribee are in poor condition and need major work. A Sewerage Strategy Report being prepared by the Water Supply, Sewerage and Drainage Branch of the Board will set out options for improvements to the existing system and for further growth.