PLANNING THE MASSACHUSETTS WATER SUPPLY

By Paul W. Prendiville[1]

The press and the scientific communities are concerned with the long-term effects on the public's health of chlorinated organics and of synthetic organics in drinking water. The concern is justified, especially where synthetic organics are present in surface and groundwater supplies. On the other hand, we do not want the public to think that all water coming from their taps is polluted or even potentially harmful. Most water supplied to consumers in our country is not only fit for public consumption; the water is clear, tasteful and *healthy*.

Water is in fact one of the most economic and natural medicines a doctor can prescribe. Eight full glasses of water a day flushes our vital organs of their impurities. For already healthy individuals water keeps the systems flushed, and together with a regular minimum exercise regimen and judicious diet, many of man's chronic and minor ailments can be prevented. In addition, when ailments do occur, flushing with water can rid the internals of disease-causing organisms and impurities.

So, we should not be discouraging the maximum use of water for drinking, bathing and other domestic uses; rather we should ensure that the water reaching the public's taps is adequately disinfected and that it is pleasing to the eyes, nose and mouth. But, another problem exists, that of furnishing *enough* water to the public. The early 1980's brought to the Northeast the realization that public supplies are not adequate during extended periods of even average precipitation. But, we cannot nor should we discourage the use of water for drinking and bathing. We have a mandate to serve the public with the best water possible, and we must plan our water systems to provide a plentiful supply of potable water, even during the driest of years.

We must also provide sufficient waters for fighting fires, for irrigation of crops, forests and parks, and for non-potable uses in the home and in commercial and industrial establishments. But, the time has come to differentiate between the uses put to our waters. It does not make sense to allow large amounts of our pure upland surface waters and our clean groundwaters to be used for irrigation and industry. These waters should be conserved for potable uses.

The upland supplies of northern New England, the Quabbin supply serving the MDC and the Cobbler Mountain supply serving Metropolitan Springfield are all examples of good quality surface waters that can

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continue to provide, with augmentation, disinfection and filtration, sufficient potable water for years into the future. The augmentation of Quabbin waters with diversions from the Connecticut River will provide enough potable and much of the non-potable water required in the State. Along with the augmentation of this supply, it would make sense to begin developing plans for using bodies of water like the Merrimack River for industry, irrigation and other non-potable uses.

The separation of supplies would be easy in some cases: water could be pumped directly from large rivers for fighting fires in downstream areas of the larger cities. The separation would be less obvious where existing mains serve domestic and industrial users from a common source; but even here, when the existing systems need augmentation, we should consider maintaining those systems for potable use and building new systems for non-potable uses.

The important thing is that we undertake immediately a regional plan to serve adequate water to domestic, commercial and industrial users. The plan must incorporate the minimum objectives of serving water in sufficient quantities for drought conditions. This will allow us to sell the best water for potable uses and to use lower quality waters for creating lovelier river banks and even front lawns.