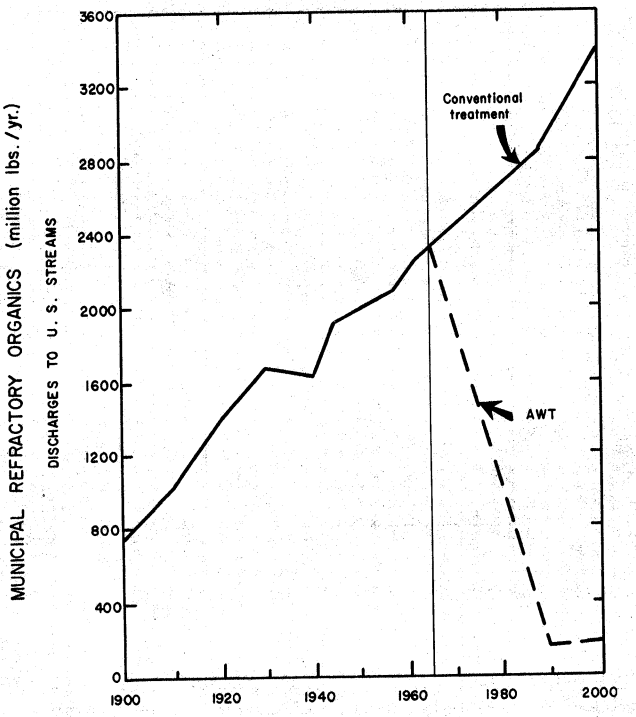

FIGURE 10 (c). Potential impact of AWT on municipal discharges of refractory organics to U.S. streams.

Unfortunately, the total effect that water renovation would have on water supply cannot be so readily estimated on a nationwide basis because of the present appreciable natural reuse of our fresh water resources. Possibly a better way of picturing this situation is to look at an individual water user. If 80 per cent of the water used by New York City were recovered and renovated for reuse, the city's water supply, which now provides some 1,200 mgd, would in effect be enlarged five times. This same general principle applies not only to all municipal but also to all industrial supplies. Irrigational supplies could not be extended to this degree because of the high consumptive losses involved.

Another major effect that water renovation would have on our water resources is less widely recognized. We refer to the "low flow regulation" concept, that is, the storage and later release of upstream water to dilute downstream waste discharges. This is a water supply requirement, although not a withdrawal requirement, and is created directly as a result of water pollution. What startles most people is that the projections[3] for water volumes just to dilute municipal and industrial BOD waste discharges are greater than for any other single use, even assuming that every discharge is treated to 90 per cent efficiency. In 1980, for example, the required flow magnitude would be