

In addition to this national challenge, there are over 9 million people now living in urban areas that are not provided with sewer collecting services, yet the areas in which they live have sewer collecting systems serving portions of the communities. Over 59 million people are now served by combination sewers, which must be modified, rebuilt, or replaced during the next three decades, if we are to prevent uncontrollable water pollution. Most of the existing sewer systems currently in service have sections which are in need of extensive rehabilitation or replacement. The sum of these shortcomings is that one-third of the total population of the United States, or one-half of the sewered population, is currently provided with less than desirable sewer collecting services, based upon decent, safe, and sanitary criteria. Yet, capital investment in sewer collecting systems continues to show no increase.

To meet fully the challenge that no urban dweller should be denied the sewer collection service required for decent, safe, and sanitary housing by 1975, facilities to serve 41 million additional people must be provided, as well as the innumerable commercial and industrial establishments necessary to support this population increase. Due to the nature of the service provided; replacement, rehabilitation, and/or modification to existing systems will of necessity also have to be undertaken.

The complex problem of separating combined sewers estimated to cost between \$20 and \$30 billion, will be begun by many communities, or continued by others, on a relatively small scale, until economic solutions to the problem have evolved. In recognition of this problem, the Congress in 1965 included in the amendments to the Federal Water Pollution Control Act, a \$20 million annual authorization for a 4-year program of investigation and demonstration of methods for controlling pollution from storm sewers and from sewers carrying both storm and sanitary wastes. The solutions evolved from this program will not be available for complete evaluation before 1969-70. Consequently, the findings of the program will not be translated into action programs until the mid 1970's, and the problem is not likely to be brought under control until the late 1980's or early 1990's. If new sanitary sewer collecting systems are the ultimate solution, the rate of expenditures for sewer collecting systems beginning in 1970 will have to be twice the currently estimated rate for the period 1971-75. Therefore, until the results of the new demonstration program have been evaluated, no proper distribution of probable activity between sanitary sewer collecting systems, storm sewer systems, and waste water treatment facilities can be made. Yet, the combined effort of the three categories of the public works beginning around 1970, will require annual capital expenditures of from \$2 to \$3 billion a year for the balance of the century.

As the Nation continues to urbanize, population densities will continue to increase particularly in the existing centers of population concentration. The central cities will continue to rebuild, and as today's suburbs increase in age, they will be replaced by multiunit housing and industrial and commercial complexes. Consequently the number of feet of pipe, or other quantitative measurement of need on a per capita basis will tend to decrease slightly as the population densities increase. This trend will be so small as to be inconsequential, unless there is a phenomenal change in the complex of our urban centers