

(a) SIZE OF THE BACKLOG

In the past, estimates of the backlog of unmet municipal waste treatment needs have been based upon an annual survey made by the Conference of State Sanitary Engineers. This year's preliminary report shows a backlog of 5,566 projects at an estimated cost of \$2.1 billion. However, it has become increasingly clear that this estimate is extremely conservative. For example, the New York State clean waters program has shown a total need for that State alone of \$1.7 billion. Among the factors contributing to the low estimates by the Conference of State Sanitary Engineers are the fact that costs of the interceptor sewers are included only when they are part of a new treatment plant construction, and the fact that 18 percent of the 5,566 projects included in the annual survey backlog are considered to require only primary treatment. Upgrading of treatment requirements to conform with water quality standards will further add to the cost of eliminating the backlog. For example, if secondary treatment is considered necessary for the 18 percent of the projects now estimated to require only primary treatment, this would increase the costs by \$506 million. In addition, the need for tertiary treatment will emerge at many locations over the next few years which will further increase costs.

(b) COSTS OF REDUCING POLLUTION FROM INDUSTRIAL WASTES

Treatment needs for industrial wastes are generally assumed to be at least as great as those for municipal wastes. However, except for information collected in conjunction with specific studies, the amount of industrial wastes entering streams is not accurately known. In addition, industrial wastes may be greatly reduced by in-plant changes that require in some cases a significant modification in industrial processing. Older plants may require addition of waste treatment facilities while newer plants with more modern, efficient methods would be able to control pollution without necessarily adding specific devices for waste control. The determination of costs for reducing industrial pollution, therefore, is a very complex one that is not yet readily identifiable in the same way as costs of abating municipal pollution.

(c) OTHER FACTORS

Combined sewers: When storms occur, wastes from runoff are combined with municipal wastes in sewers with the result that treatment plants are overloaded and must bypass wastes into streams. Separating these wastes requires very high costs and involves disruption of street traffic. Estimates of the national cost of separating combined sewers run as high as \$30 billion. However, other means of solving this problem are presently being explored chiefly through a 4-year \$80 million program of grants and contracts.

Agricultural wastes: Wastes from nonpoint sources such as agricultural fertilizers and pesticides are extremely difficult to control. These wastes have significant impact on water quality through the indirect route of causing conditions that enrich waters for algae growth or through causing fish kills when pesticides build up in body tissues.