

appropriate \$4 million for the creation of two national research laboratories "to establish reliable water quality standards." (See p. 64 "A Staff Report to the Committee on Public Works, U.S. Senate," 88th Cong., 1st sess.) These laboratories currently are in the design stage and presumably will soon be under construction.

Nevertheless, the 1965 amendments specify that unless the States have established standards by June 30, 1967, the Secretary of Health, Education, and Welfare will do so. Presumably this will leave little for the two new "standards-research" laboratories to contribute after they are built, if decisionmaking on standards matches the deadlines set forth in the new legislation.

There is enough visible evidence in waterways of the Nation—or at least in sections of them—to demonstrate the necessity for aggressive action in halting gross and obvious degradation of water resources. Public indignation is aimed primarily at this manifestation of pollution. The data at hand are not at all convincing, however, that the current situation is one of national crisis or that gross degradation is universal. Certainly, no epidemics of waterborne disease have occurred. While there is reason to believe the depreciation of water quality is producing, in some instances, undesirable economic consequences, the assessment of such effects has not yet been sufficiently advanced to make meaningful estimates of benefits versus the cost of appropriate control measures.

STATUS OF SCIENCE AND TECHNOLOGY

The evils of water pollution have been with us a long time. But so have the means to ameliorate most of these evils. There are no technological obstacles, for example, in halting gross and obvious pollution. If raw sewage is being discharged from a community, or if cyanides and phenols are reaching a waterway from an industrial operation, the resulting pollution cannot be attributed to a lack of scientific acumen or technical tools for dealing with it. The abuse of waterways represents a lack of social responsibility.

In brief, and by way of preface to these comments on the status of science and technology, it can be asserted that we already know much more than we are actually applying to improve the condition of our waterways. This is not to suggest, however, that basic research and the development of techniques of water quality management should not command vigorous attention. The question is: Are we addressing our talents most creatively and advantageously?

With respect to scientific matters, not of least interest is a better understanding of the behavior of waterways under varying impacts of pollution loading and the development of "models" for prediction of change. Present empirical formulas and the translation of results from experiments in laboratory bottles fall short of providing the kinds of information that are needed for more economical design of control measures.

Equally challenging is the conduct of a comprehensive inquiry into the physiological aspects of water quality. The major objective of such an investigation would be to determine if unsuspected public health hazards may exist as a result of trace constituents from industrial and other waste discharges that may find their way into water-