

ing the next 5 years or so, the most significant forward strides in water pollution control will be made in this way. It is equally clear that, in addition to current problems for which there are no acceptable solutions, future population and industrial growth and concentration, changing land uses, and increased demands on our limited water resources create a situation where new technologies must be developed and applied. Problems result from the sheer mass of pollutants and from a whole host of new pollutants which are likely to be highly complex in composition and in their mode of effect.

Mr. DADDARIO. Dr. Weinberger, if I might interrupt, when you say that many of the water pollution problems facing our Nation today can be alleviated by the application of existing technology, do you mean that it can be done efficiently, effectively, and within some reasonable price figure?

Dr. WEINBERGER. Yes, sir. What I have reference to is the situation where there are still a number of locations in the United States where available treatment technology has not been applied.

In other words, there are locations where municipalities have not employed conventional primary and secondary treatment. These are processes well established and quite economical and efficient. This would apply equally well to the problem of some industrial waste where there is no treatment installed.

Mr. DADDARIO. Mr. Conable noted yesterday that there is still a great deal of work to be done in cities which already have treatment programs going. There was some question in his mind about why treatment wasn't a hundred percent effective. Is this because in this area the costs are prohibitive or is it simply an inadvertence on the part of people to do that much more?

Dr. WEINBERGER. No, sir; I think this could be explained in this way: In terms of treatment, particularly with regard to municipal wastes, what has happened in the past is that we have removed only a percentage of the impurities. This was on the basis that because the amount of impurities were small in proportion to the flow in streams, the streams could adequately dilute the residual waste and, therefore, not cause any harmful or deleterious effects within the stream. As our population has increased and industry has grown, we find that those techniques are no longer adequate, or if you will, we have overwhelmed the ability of streams to absorb these wastes. What has been developed, we called "complete" or secondary treatment which, at best, removes some 90 percent of the organic material from waste.

Mr. MOSHER. Are you emphasizing that term "at best"? Are you suggesting that frequently it doesn't do that well?

Dr. WEINBERGER. It very seldom does, sir. We are talking about reaching the limit of the process.

Mr. MOSHER. So instead of 90 percent it more likely 70 percent?

Dr. WEINBERGER. I would say in certain cases, it would be as low as 80 and could get lower than that, sir. There are many places in the United States where we do have the best treatment, which now would be biological secondary treatment which would remove 90 percent or 85 percent, sir, or somewhat less, of the organic materials and that these processes are inadequate at the present time because of the