

velocity and flow and the amount of waste coming in. A technology is available—it is a question of its applicability in a particular situation.

Mr. MOSHER. Aren't you really saying that each stream in an individual case?

Dr. WEINBERGER. Yes, sir.

Mr. MOSHER. This goes all over the country. Each stream or river has to be considered as a separate case. You can't establish standards or techniques which would be applicable everywhere.

Dr. WEINBERGER. Yes, sir, and this has been the policy of the administration to recognize that this is so.

Mr. MOSHER. To go back to my original question, assuming that the State applied these techniques judiciously and wisely on the basis of stream-by-stream studies, would these techniques be effective and would the State be wise in pursuing these measures?

Dr. WEINBERGER. Yes, sir. As a matter of fact, one of the areas that I mentioned for which R. & D. is needed, is in my 12th point on page 5—in-stream treatment.

Now, again I think there is a question here of alternates which must be compared. Whether the in-stream treatment is more suitable or effective than treatment at source.

In other words, in-stream treatment assumes that we are unable to control the waste at the source or it is not economically feasible to do so. Therefore, what we do is take the entire stream and treat it in that way.

This is why I say this would depend on an individual analysis as to what one is doing.

Again, I might take one example of this. For such a pollutant or pollution from a diverse source like acid mine drainage, it might very well be that it would be more economical if, one could not control the waste at the source, to treat the entire stream.

Of course, it is always preferable, if the economics permit, to control at the source which would prevent the degradation of our streams.

Mr. MOSHER. On page 3 of your statement you suggest that land users will have to modify their practices to insure that there are no deleterious changes in the quality of runoff water. I'm told by some people that one of the problems we have in Lake Erie—and that's the situation of particular interest to me—is the amount of nutrients that run into the lake from heavily fertilized farmland. Apparently, the erosion of farmlands into the scores of streams and rivers that go into Lake Erie cause the nutrients to be deposited there. You say that land users will have to modify their practices. Is there much work being done along those lines? Obviously land erosion has been a problem that has been of interest and dealt with for years, but is there new thought being given to it?

Dr. WEINBERGER. Yes, sir; there is.

We have worked with the Department of Agriculture in terms of insuring that one does not apply fertilizers in excess. In terms of such things as pesticides for example, considerable progress as you know has been made in terms of application, to assure that the minimum required dose is applied and the dose is applied effectively. Pesticides are not used in excess which would then end up in our streams.

Mr. MOSHER. In other words, in this complicated and difficult problem of Lake Erie, one of the controls conceivably would be the