Dr. WEINBERGER. I would say that the same type of answer that Mr. Moore just gave applies. I think it would be a completely defeatist attitude to suggest that we couldn't have swimming in the Potomac River. From a technological point of view, there is no reason why we can't control the pollution sources, including the matter of the bacterial quality of the storm and combined sewer runoff.

Right now it is a matter of cost. I think it is a decision that the public must make as to the value which they will put to any particular use.

I personally think that the Potomac should be used for all purposes that the public wants including a swimming place for them. We can develop or we do have the technology to control pollution.

Mr. CARPENTER. Will your program result in the placing of a cost figure on these various uses, and if so when could we expect such cost benefit figures to be available for major rivers and estuaries?

Dr. WEINBERGER. You want to comment on that, Al?

Dr. HIRSCH. Well, I think we can expect the cost figures to be available much sooner than realistic benefit figures in many respects, and that is because so many of the benefits are intangible or nonmonetary in nature. We can put certain assumed values of a man-day of recreation for a person in New York City to enjoy the Hudson River. I personally think those are at least semiarbitrary when you are making comparisons of this sort.

Mr. CARPENTER. Could you tell us, for instance, how much it would cost to say treat, that is to collect and treat the runoff, storm runoff in the Rock Creek watershed?

Dr. HIRSCH. Oh, I think we could make estimates of that sort.

In fact, I think some estimates of a very preliminary nature of that sort were made in connection with some of the Potomac planning that has already been done. The trouble with these estimates is that they don't look at the full range of improved technology, the combinations of things that could be done. They just take the standard costs of separating combined storms. I don't think that is the total answer.

(The information requested is as follows:)

The complete separation of combined sewers in the Rock Creek Basin, has been roughly estimated at a cost of $105 million. However, this does not include provision for the effective collection and treatment of urban storm runoff, once it has been separated from sanitary sewage.

The solution to the storm water and combined sewer overflow problem at the present time appears to be collection, treatment, and chlorination of these flows before discharge. Treatment should probably include some form of coagulation and settling in a detention basin if a satisfactory quality is to be achieved. Such impoundment and treatment would also reduce the heavy loads of sediment, trash, and turbidity carried into the river by storm water, but disposal of the accumulated materials would present a problem of considerable magnitude.

The volumes of storm water which must be dealt with in a metropolitan area such as Washington at times of heavy rainfall, are very large. For intense storms, total volumes on the order of 6 billion gallons are involved. The collection, impoundment, and ultimate treatment and chlorination of such volumes presents substantial construction and operating problems. The "Final Report of the Interdepartmental Task Force on Project Potomac, Sub-Task Force on Water Quality" (February 1967) gives a very rough estimate based on extremely sketchy information and computations which indicates a total cost for the necessary works on the order of $2 billion for the entire metropolitan area. That illustrates the importance of seeking cheaper and more effective solutions.