

follows: What are the problems in water pollution or water quality control? Having identified the problems, what answers and solutions do we need? When do we need these answers? What answers and solutions are already available? Who has or should have the responsibility for seeking answers? What are the chances and incentives for obtaining better answers? When will the research, development, and demonstration be completed? On the basis of answers to these questions, gentlemen, it is possible to establish priorities which can be assigned to the various elements which I have indicated on figure 1.

The implementation of approved program plans consists of a number of aspects and I have listed these in my report.

The allocation of resources: The research and development program of the FWPCA is conducted through both in-house and extramural support. The in-house effort is conducted at our major laboratories and field sites.

It is obvious that to have a successful research and development program, in addition to the competence available in the Federal Government, the best scientific and engineering talent in the Nation, including that available in the university and private research institutions, industries, and in State and municipal organizations, must be included in the national effort to control water pollution.

Mr. DADDARIO. Dr. Weinberger, when you talk about the best scientific and technical manpower available, how about the manpower presently existing which has the responsibility to maintain the waste treatment plants now in existence? I have a letter from a Mr. Charles Pitkat, of Connecticut, who works at the Vernon waste treatment plant. He and a group of people who work at these plants get together on occasion and try to help each other out from the standpoint of skills and abilities to do a better job. He says, and I quote:

One place that you can improve treatment is in the operator field. We need much more training than is now available. With all the talk going on about making police professionals or technicians, why cannot an operator have this same interest? Because of the background of operators, such as basic education, age, available time and the like, it is extremely hard to have us qualify to become a professional engineer. Yet, there is nothing available that would enable us to go to, say, three or four years of night school and end up as an accepted technician in this field. Professional people are reluctant to talk to or deal with nonprofessional people. If you look around in the design end of treatment plants, I would say you will find not one engineer concern who has someone who operated a plant on his staff. And yet we are the people who have the actual contact and control of their design.

I bring that up because we talk about scientists and technicians, yet when we had the hearings some time ago it showed quite clearly that many of our waste treatment plants were not operating at their full capacity for no other reason but that the people who were working on them just did not have the capability to maintain them at the highest possible level. Therefore the plants were not doing as good a job as they ought to do.

There was a desire on the part of these people to be able to do more. It was suggested, as I recall it, that perhaps we create an itinerant group of technicians who could go from waste treatment plant to waste treatment plant. They would help make assessments and tell these people what could be done to improve the plants, and by so doing reduce the waste and pollution problem which presently exists.