

knowledge of factors affecting our environment, where we need better methods for measuring these factors, and where other technological breakthroughs are needed.

Although we have come a long way in pollution abatement, more effective water resources management can be achieved by giving attention to these troublesome areas.

I suggest that this committee might assist in providing for increased scientific effort directed toward the development of—

1. Generally acceptable parameters to measure and define baseline conditions in order properly to assess costs and benefits of changes in environments;
2. Economical processes for removing nutrients from waste water;
3. Methods for determining algal growth potential;
4. Simple and less costly methods to measure insecticide concentrations in the environment;
5. A better understanding of the movement of insecticides after they have been applied;
6. Effective insecticides which degrade rapidly after use;
7. A detergent standard against which measurements can be calibrated;
8. Methods for measuring and interpreting the significance of viruses occurring in water;
9. Methods of assessing and effects of the discharge of concentrates from sea-water conversion and other desalination plants; and
10. Better methods for the disposal of solid wastes.

Mr. VIVIAN. Mr. Chairman?

Mr. DADDARIO. Mr. Vivian?

Mr. VIVIAN. I am very pleased to have Mr. Warne set forth this list of 10 items, all of which appear to me to be very reasonable and all of which will be of great assistance to this committee.

Mr. WARNE. Thank you.

Now, I have a little more material on questions that the committee asked.

The second part includes specific answers to the administrative and policy problems listed in part E, section VI, of the Report of the Research Management Advisory Panel.

The questions raised by the Panel probe areas of concern to all who must wisely manage our resources. There are no single answers, but experience we have gained in pollution abatement in California provides a basis upon which we can take a considered point of view.

The first question was: *What should be done to define State and local responsibilities in applying technology?*

In California the responsibility for water quality control is assigned to nine regional boards, generally one for each of the major drainage basins of the State. These regional boards are, in turn, responsible administratively to the State water quality control board.

Until very recently the regional boards were responsible only for the control of pollution, per se. The boards did a good job of regulating municipal and industrial waste discharges, to which their responsibilities were limited. During 1965, however, the legislature changed them to water quality control boards and assigned them