The environmental threats to health are most difficult to establish and frequently, when they are established, turn out to be the ones we had suspected all along.

But I submit that we no not need to wait for scientific proof of disease relationships to sustain conviction about the seriousness of health hazards associated with the disposal of solid wastes. It is sufficient to know that more than 20 human diseases are carried by rats and insects proliferating in tens of thousands of open dumps. It is also sufficient to know that solid waste contamination of the land usually results in health-threatening air and water contamination. Gross pollution of water is produced by open dumps or improperly designed and operated landfills. Open burning or inefficient incineration of solid wastes are major causes of air pollution in many cities.

Since we are now committed in this country to control water and air pollution, it seems appropriate to make very clear the fact that, fundamentally, there is only one pollution—pollution of the earth. Air, water, and land are reservoirs, vast but not limitless, in which wastes may be stored. The reservoirs are interconnected and interrelated. To pollute one may be to pollute all three. And this is precisely what we will continue to do unless we develop and apply technology far more sophisticated in solid wastes pollution abatement than anything we have used up to now.

Technologically, solid waste management lags far behind air and water pollution control. Furthermore, the physical burden of solid wastes is increasing annually more rapidly than the population, and we are generating more of the kinds of materials which are particularly difficult to return safely to the air, water, and land.

But referring for just a moment to the future physical solid waste burden, I think estimates with which I am sure Subcommittee members are familiar, are too low. They show the present rate of daily solid waste collection going from 4.5 pounds per person to around 5.6 pounds by 1980 to push the total yearly accumulation from 165 to 260 million tons during the same period.

But it must be borne in mind that these are collection figures. We do not have, we badly need, and we are in the process of obtaining data which will give us an accurate picture of the amounts of waste being generated in this country, including those privately collected and disposed of, by municipalities, industry, and agriculture.

I feel certain that collection figures do allow sufficiently for additions to be made to solid wastes as more and more pollutants are extracted from air and water. Municipalities and power, petroleum, chemical, and many other industries will add vast quantities of a large variety of waste materials. In sulphur and fly ash from fuel combustion alone the increase will be in the millions of tons yearly.

Without underestimating the size of the task of managing great new amounts of solid wastes which our technological and population growth will generate, it should be appreciated that the solid waste burden will change qualitatively as well as quantitatively. For example, progressive effectiveness in removing harmful pollutants from waste streams leading to the air or to the water must and does involve diverting these pollutants to the solid waste stream. Many of these materials are nearly nondegradable, complex chemical compounds with varying degrees of toxicity for man, domestic animals, or wildlife. A few are known cancer producers. Quite clearly, important future research under the national program must be aimed at meeting this new health challenge.

Mr. Chairman, the solid wastes problem is huge, but it need not—indeed it must not—overwhelm us. In fact, I think we can feel cautiously optimistic about long-term prospects for success with the national program for two reasons. First is the growing public demand for a quality environment. And second is the fact that this demand has been translated into the Solid Waste Disposal Act, a most mature piece of legislation for improvement of the environment.

The Act, to begin with, recognizes the essential interrelationship of the three segments of pollution control. It specifically directs that in developing solutions to solid waste problems, consideration be given to how the solutions may affect not only problems of water and air pollution, but urban and metropolitan development and land use planning.

The Act, furthermore, makes it clear that solid waste pollution control involves a great deal more than disposing of solids, however safely that may be achieved. The law gives much needed emphasis to the urgency of developing