

Mr. DADDARIO. We appreciate your statement and your cooperation. Mr. Chairman?

Chairman MILLER. Doctor, I wonder if you are familiar with a vexatious problem that confronts the Livermore Valley in California. That is where the Lawrence Laboratory or the big laboratory is located. It is an interior basin due to seismic eruptions, cut off of the natural flow, particularly underground water out of this basin, so that the storage capacity underground is around 500,000 acre-feet.

That is one of the things that makes the area a fine winegrowing area and a lot of other things. In the meantime, the city of Livermore at one time had about 3,500 people and now has about 30,000. The usual problem of sewage disposal came up.

Alameda Creek drains this. As you know, in the west we get all of the rain and the runoff in certain seasons of the year. The rest of year the creek is nearly dry. They proceeded to do the things that we did some years ago. We said we have treated this effluent. It is sterile. So we will dump it into the creek. The wells in the city of San Francisco have the prior right to this underground water. They began to get traces of detergent in some of this effluent. It might be hard enough to clean the big lake, but how are you going to clean up an underground supply of water?

Suffice to say this has been stopped now.

Dr. WEINBERGER. The Chairman raises, of course, a very important question about some of the long-range effects or the effects which may only be noticeable in the future to make sure we take appropriate steps at an early time.

Contamination of ground water, of course, is particularly critical because of the long period of time that it does take to purify it or clean it. I might say that we do have a project in California east of Los Angeles, which is also a restricted basin. But there, by proper treatment of wastes, by using the best technology which we have, they will be taking their waste water and deliberately putting it back into the ground to recharge. We do not anticipate any problems.

Chairman MILLER. I think if you treated the water when you let the effluent itself get in there, seep underground, this is another thing. A very distinguished scientist, one Athelstan Spilhaus, told me long ago the best thing we could do was to start teaching the people of the United States they had to use reconstituted water. This seems very repugnant, but it is being done now in certain parts of the country and we don't know it. It is something we have to do. These are going to create greater problems.

The discharge from the condensers that were used to produce heat at Richland, Wash., were in no way contaminated. It was only heated and put into the Columbia River, but it changed the ecology of that river so far as salmon are concerned. The migrating salmon coming upstream expect to find a certain temperature of water and found it 3° or 4° higher. They just refuse to go through with their natural process. So we can lose things in this way, too.

Mr. FULTON. Mr. Chairman?

Mr. DADDARIO. Are you finished?

Chairman MILLER. Yes.

Mr. FULTON. I wanted to compliment the chairman. I thought they were good, specific questions of the effects of actions that are taken