

5. *Relation between local short-term uses and long-term productivity of the environment*

In the short run, the program has little or no impact on the environment. The long-run potential is significant. Positively, the production of commercial quantities of water from saline waters, at competitive cost, could provide high quality water for blending with natural stream flows for water quality improvement, and, by virtue of increased supply, reduce the need for added stream flow regulation. It could reduce the depletion of ground water supply in critically water short areas. Negatively, there is no question that large-scale desalting plants, as contemplated, may have slight local environmental impact. These, largely, will result from heat, brine and air emissions. The research program is designed to provide answers to these environmental questions, as well as to reach the technological objectives. Future state legislation could impose constraints on proposed test facility programs which can be overcome by investment in items such as cooling towers and long outfall systems. In this manner environmental impact would be minimized.

6. *Irreversible and irretrievable commitments of resources*

None.

Senator ANDERSON. I have received the following statement from Senator Bible, which will be included in the record at this point.

(The statement follows:)

STATEMENT OF HON. ALAN BIBLE, A U.S. SENATOR FROM THE STATE OF NEVADA

Mr. Chairman, first let me commend the chairman of the full committee as well as the chairman of the Water and Power Resources Subcommittee for their interest and foresight in sponsoring legislation not only to continue water desalting research but to channel this work toward a definite and productive goal.

To me, saline water conversion has always held the brightest short range promise among all the various efforts to solve the growing problem of water resource supplies. Many other programs and project proposals have great potential—weather modification, trans-basin projects, anti-evaporation research and the like—but none are so readily within our grasp. We must move forward on all fronts to head off what will otherwise become a water supply crisis of disastrous proportions. We can neglect no reasonable approach to a solution, and I am convinced we *must not* neglect saline water conversion.

As chairman of the Interior Appropriations Subcommittee, it is my duty to review the annual budget requests of the Office of Saline Water, and I hope that I have helped from time to time in giving direction and purpose to this important program. Great strides have been made since this effort was first launched by Congress in 1952. The cost of converting seawater has been chopped down from \$4 per thousand gallons in 1952 to 65 cents today, and the former director of OSW testified before my subcommittee just last month that there are real hopes for reducing that by another 15 percent in the reasonably near future through a combination of processes that will also cut capital costs by some 30 percent.

This was the thrust of testimony before my subcommittee, as I say. Some predictions have costs going even lower, perhaps in the area of 40 cents per thousand, which would make desalted water competitive in cost to average municipal rates.

We are still a long way from our goal of converting seawater for low-cost agricultural use, but this goal is no longer a distant, unreachable objective. As Dr. Chung-Ming Wong stated:

"Let me say, 40 cents per thousand gallons is equivalent to one dime per ton, or 10 cents for 2,000 pounds of water delivered to your kitchen. The only thing cheaper is air. Dirt costs more than a dime a ton. We are aiming at that as our target, and while we have not achieved a dime a ton at this time, we are coming closer."

We cannot overlook the additional fact that saline water conversion is developing important side benefits along the way. Headway has been made in applying desalting methods to the problem of water pollution control, to salvaging the water resources of geothermal steam and to converting brackish inland waters.

At the same time, I have some concern in my own mind about the dangers inherent in fragmenting research. I would not like to see the goals blur and the thrust wander. After all, as it was put to my subcommittee, the United States invested more than \$182 million between 1952 and 1970 in saline water conversion research—about \$10 million a year. That kind of investment and that kind of effort must have a firm direction and a solid goal.