With air, the primary criterion is that for breathing by human beings. Water for drinking purposes can be obtained from the most polluted source, although distillation may be necessary. But water has so many valuable uses that a spectrum of criteria has developed. A given stream may be consciously dedicated to a combination of compatible uses—but only if cause and effect relationships are known.

The Federal laws for water pollution began with the objective of simply keeping out debris which would obstruct boating and shipping. Today, the uses for which surface waters are preserved range from sport fishing and water contact sports to industrial processing, agricultural irrigation, and pumped storage for electricity generation. Criteria differ for each use. I expect these hearings to show our capability in achieving an optimum use of our water supplies.

Our first witness today is Dr. Leon W. Weinberger, Assistant Commissioner for Research and Development, Federal Water Pollution Control Administration, Department of the Interior. Dr. Weinberger was very helpful to us in our hearings in 1966.

He has been of help to us informally over the course of years, and always generous in donating his time and advice to our committee. We thank you and welcome you here again today.

(Dr. Weinberger's biography follows:)

DR. LEON W. WEINBERGER

EDUCATION

B.S. in civil engineering from the Cooper Union, New York, N.Y.
M.S. in sanitary engineering from Massachusetts Institute of Technology
Sc.D.—Massachusetts Institute of Technology

PROFESSIONAL AFFILIATIONS AND HONOR SOCIETIES

Fellow, American Society of Engineers
Water Pollution Control Federation'
American Geophysical Union
American Water Works Association
Member of Society of the Sigma XI
Who's Who in Engineering
American Men of Science

PROFESSIONAL HISTORY

1966–Date—Assistant Commissioner for Research and Development, Federal Water Pollution Control Administration, Department of the Interior.

1963–1966—Chief, Basic & Applied Sciences Br., Division of Water Supply & Pollution Control, PHS, U.S.

1949–1963—Assoc. Professor of Civil & Sanitary Engineering, Case Institute of Technology—Dir. of Sanitary Eng., Research Laboratory.

1949–1962—Consultant in water supply, waste water disposal, and stream pollution to city, State, and Federal governments, and to more than 20 industries.

1947–1949—Research Assistant and Research Associate, Massachusetts Institute of Technology.

1943–1946—U.S. Navy Civil Eng. Corps. (Seabees).

1943—Eng. Draftsman—Designer—North American Aviation.

Participates in numerous international, national, professional, and technical advisory committees, including the following:

World Health Organization (WHO)
United Nations Educational, Scientific, and Cultural Organization (UNESCO)
Organization for Economic Cooperation and Development (OECD)
National Academy of Sciences (NAS)
Office of Science and Technology—Federal Council for Science and Technology (OST/FCST)