

UNIVERSITIES COUNCIL ON WATER RESOURCES

Charles W. (Chuck) Howe

The Warren A. Hall Medal is a memorial established by friends and family to recognize unusual accomplishments and distinction of an individual in the water resources field. It was officially instituted in July 1993 by the Board of Directors, Universities Council on Water Resources. The Medal will be awarded annually to an educator, devoted to the advancement of knowledge in water resources through teaching, research and/or public service, and with a strong commitment to the education and welfare of his or her students.

Dr. Warren A. Hall, known worldwide for his active involvement in water resources research and education, was one of the founders in 1962 of the Universities Council on Water Resources. He was born on a dryland farm near Crawford, Nebraska, in 1919; earned a bachelor's degree in engineering from the California Institute of Technology in 1942; and followed that with a tour as an industrial relations officer for the U.S. Navy during World War II. Shortly afterwards he began a distinguished career with the University of California.

In 1960 he was selected as Director of the Water Resources Center, which involved all campuses of the University of California. He convened two conferences that resulted in the creation of the Universities Council on Water Resources. During its formative years, Dr. Hall served as a member of the board of directors, executive secretary, and as chairman.

Though Dr. Hall's talents were in great demand and utilized by high levels of the federal government including the Nixon Administration as Technical Assistant for Water Resources, Office of Science and Technology, Executive Office of the President, he remained a humble, personable, and resourceful professor, consultant and engineer who emanated endless energy.

He was loved and admired by his students and respected by his peers. His door was always open to students and colleagues, and his enthusiasm to discuss water resources problems never diminished. Dr. Hall served as a key mentor for many young scientists and engineers and as host to many foreign students.

Since 1993, UCOWR has awarded a Medal in honor of Warren A. Hall to an individual who has made a significant impact on the water resources field. Past winners include: William Butcher (1993), Warren Viessman, Jr. (1994), Gilbert White (1995), Richard S. Engelbrecht (1996), Yacov Haimas (1997), Neil S. Grigg (1998), William W-G. Yeh (1999), Vernon L. Snoeyink and Daniel Peter Loucks (2000), and Miguel A. Mariño (2002).

UCOWR is proud to announce the recipient for the 2003 Warren A. Hall Award: **Dr. Charles (Chuck) W. Howe**, University of Colorado.

Chuck Howe is Professor Emeritus of Economics and the former Director of the Environment and Behavior Program, Institute of Behavioral Science at the University of Colorado. Dr. Howe has had a distinguished and unique career in water resources activities at the university, state, federal, and international levels. He served as chairman of the Department of Economics at the University of Colorado from 1972 to 1976. In 1986 he became Director of the Environment and Behavior Program, Institute of Behavioral Science at CU. He was Chair of the Governor's Science and Technology Advisory Council, State of Colorado (1983-1987) Dr. Howe's federal appointments include Director of the Water Resources Program, Resources for the Future, Inc., Washington, D.C. (1965-1970); Chair of

the Committee on Privatization of Water Services in the United States, Water Science and Technology Board, National Research Council (1999-2002); and Lead Author on Water Resources for the Intergovernmental Panel on Climate Change (IPCC) (1998-2001). He served on other WSTB/NRC panels that evaluated climate impacts, irrigation-induced water quality problems, and international development. He was a member of the National Panel for the Evaluation of the State Water Resources Research Institutes by the U.S. Geological Survey in 1994.

Dr. Howe has been a Visiting Professor at the Universities of York (UK), and Montpellier (France), University of Wageningen (Netherlands), and Gadjah Mada University (Indonesia). He has served as a consultant on water issues for the United Nations, the Agency for International Development, World Bank and the Ford Foundation in Senegal, Botswana, Kenya, Ghana, and Mexico.

Currently, Dr. Howe serves as General Editor of the Edward Elgar Publisher Series on Water Resources.

Chuck Howe received a B.A. in Economics and Business Administration from Rice University in 1952, and an M.A. (1955) and Ph.D in Economics (1959) from Stanford University. He began his career at Stanford as an Instructor in Economics and was Assistant and Associate Professor of Economics at Purdue University from 1958-1964.

After Dr. Howe received the award, he made a few comments. Below is a subset of his comments that present perspectives of water management Dr. Howe has gained, thus far, during his distinguished career.

Comments by Charles W. (Chuck) Howe, Washington D.C., July 31, 2003

I'm humbly honored to be awarded this medal that honors the great contributions of Warren Hall to teaching, research, and service to the water resources community. I had the privilege of meeting Warren early in my tenure at Resources for the Future, Inc. when he was Director of the California Water Resources Research Institute, centered at UCLA. He generously devoted several hours informing me about water issues in the western U.S. and discussing river systems optimization procedures on which we were both working. We later met on various occasions in Washington where he held major policy advisory positions. The honor of this award is further defined by the list of 10 distinguished previous recipients. It is indeed an honor to be included in this group of major contributors to water policy, water engineering, water education, and service to the water community.

I would like to mention three topics that merit increased research from water professionals, even though the points have long been on the research agenda. The first can be called the return to the river basin as the basis for socially responsible water management. The river basin is the natural unit for managing our surface water resources, yet we have chopped up our basins into many jurisdictions (states, special districts, project authorities, international authorities) that fail to consider the system-wide consequences of their actions. The result is the generation of "jurisdictional externalities" that reduce the national benefits from use of the river by imposing losses on other user groups.

To set basin-wide planning and management as a goal is ambitious indeed, and will require political wisdom beyond all of our water-related disciplines. While a few river basin commissions have been successful, attempts under the 1965 Water Resources Planning Act were largely stillborn. Yet, the potential payoffs are large enough to permit "win-win" situations for all basin groups. The "Severe Sustained Drought Study" of the Colorado River showed how much could be gained by optimizing over the entire river rather than state-by-state or district-by-district. In this conference, the study of the lower Rio Grande by the Texas A&M Team pictured the maze of local districts that stand in the way of larger scale optimization. Aaron Wolf's paper on conflict resolution/prevention illustrated the same point at an international scale.

A second topic warranting our increased attention is improved management of the huge water infrastructure that we already have. This point was strongly made in this conference by Edward Dickey, former Chief of Planning for the Army Corps of Engineers and is not independent of the proceeding point on river basin scale. The point relates also to ex-post analyses as a way to learn how we might improve our use of this great infrastructure. The emphasis of such analyses is not primarily how individual projects have turned out relative to expectations at the planning stage, but to learn how rapidly changing and uncertain physical and socio-economic environments are impacting the efficacy of our water management techniques.

A third topic relates to the search around the world for the right balance in the roles of the public and private sectors in the provision of water services. Regarding raw water, water markets of one sort or another are playing an increasing role in the flexible allocation of water. We are aware of the power of markets, properly organized and regulated, to generate information and efficiently reallocate water in a changing economic environment. We are also aware of the severe social/community impacts that large, sudden ag-to-urban transfers can have on the areas-of-origin. The issue is how far U.S. States should go in constraining water markets to protect these local community values. While unconstrained markets may ultimately result in more efficient uses of water, the transition period can be very costly to the area-of-origin. The case of Chile's privatization of raw water also shows that unconstrained markets need not lead to efficient water use if the judicial framework is weak and allows monopolization to occur.

In the area of urban water provision, the issue is, under what conditions should operation and/or ownership of water and wastewater systems be turned over to private companies (in very few cases is ownership of utility assets turned over to private companies). These companies have a lot to offer, but the contracting conditions must be carefully designed and monitored. In the U.S., there have been both positive and negative results of private contracts. One of the biggest benefits of the privatization movement has been to spur publicly owned and operated utilities (that are still a vast majority) to improve their operations. This record needs to be better understood.