

## **Section 8**

### **Overview of Agricultural Water Use Measurement Panel Participants**

Below are biographies for the panelists serving on the Agricultural Water Use Measurement Panel.

#### **PANELIST BIOGRAPHIES**

**NAOMI DUERR** is currently Director of the Environmental Monitoring and Assessment Department for the South Florida Water Management District (SFWMD), a \$524-million agency responsible for flood control, environmental restoration, water allocation, and protection of natural systems in a 16-county area covering 10 million people. Ms. Duerr received her BS in Geology and her Masters of Public Administration and Policy (MPA) with a specialty in water policy, both from the University of Nevada - Reno. She is a Certified Professional Geologist.

Ms. Duerr manages a staff of 200+ engineers, scientists, chemists, geologists, programmers, and analysts in 4 divisions. Her areas of responsibility include hydrology and hydraulics, water quality analysis, water quality monitoring, and hydrologic information systems and assessment. The information stream from these areas supports on-going water management and periodic reports, including the comprehensive, annual Everglades Consolidated Report. Under her direction, the Department also provides information for decision making on major initiatives such as rule development for phosphorus concentrations in the Everglades and implementation of the Comprehensive Everglades Restoration Plan.

From 1993 to 2000, Ms. Duerr was the State Water Planner and head of the Division of Water Planning in Nevada, the driest state in the nation. There she led a team of scientists and planners in developing the state drought plan, state water conservation plan, and regional watershed plans, and initiated the state natural resource plan and state floodplain management program. The Nevada State Water Plan, developed under her direction, was selected as the *Most Notable Document of the Year 2000* by the National Conference of State Legislators. As State Water Planner, Ms. Duerr was also responsible for implementing data analysis and water education programs, and a \$50 million program of grants for water conservation and construction of water systems. Prior to joining the state of Nevada, Ms. Duerr was the Deputy Director of the Regulation Department at the St. Johns River Water Management District in Florida, where she led the effort to develop new water conservation and water measurement rules. Professional honors include: *Florida Regulatory Person of the Year* by the Florida Rural Water Association, and recipient of the *Golden Pinecone Award*, Nevada's most significant environmental achievement award.

**THOMAS HARTER** is currently Associate Cooperative Extension Specialist in Subsurface Hydrology and a faculty member of the Department of Land, Air, and Water Resources at UC Davis. He received his Ph.D. in Hydrology from the University of Arizona, where he also was a Fulbright Scholar and Harshbarger Fellow. He earned his M.S. in Physical Geography/Hydrology from the Universities of Freiburg and Stuttgart, Germany.

Dr. Harter is conducting research on deep vadose zone characterization and groundwater resources assessment through groundwater flow and contaminant transport modeling. He is serving as principal investigator for developing a regional groundwater and surface water model of a 1,500-square-mile watershed in the San Joaquin Valley, a risk analysis of production aquifer salinization in the Western San Joaquin Valley, and an assessment of groundwater quality impacts from animal farming operations. As a technical reviewer for the state of Arizona, he has advised on project design and research implementation involving groundwater development projects. Dr. Harter has also taught numerous courses on topics including Groundwater Flow and Transport Modeling, Vadose Zone Modeling, and Applied Groundwater Hydrology.

Dr. Harter is a member of the American Geophysical Union, the European Geophysical Society, the International Association of Hydrologic Sciences, the National Ground Water Association, and the Groundwater Resources Association of California. He has contributed articles to numerous publications and conferences including "Environmental Science and Technology," "Journal of Hydrology," and "Water Resources Research."

**STEVE HATCHETT** is an economist specializing in agriculture, water resources, and mathematical and statistical analysis. He received his Ph.D. in Agricultural Economics from the University of California at Davis in 1984. Dr. Hatchett is owner of Western Resource Economics, a private consulting firm specializing in agriculture and water resources in the western U.S. Prior to opening his private practice in early 1999, Dr. Hatchett served as economist and project manager in the Sacramento office of CH2MHILL for more than 11 years.

Dr. Hatchett has led the economic analysis for numerous projects related to agricultural water use. Clients include the Bureau of Reclamation (Mid-Pacific and Pacific Northwest Regions), CALFED, California Dept. of Water Resources, and many local agencies. Dr. Hatchett is a recognized expert in the economics of irrigated agriculture. Among his activities, he has:

- Developed a comprehensive database of agricultural land use, water use, production, prices, and costs for the Central Valley of California;
- Evaluated the trade-offs between on-farm irrigation costs, water use, and management for major Central Valley crops;
- Evaluated the effects of changes in water supply and pricing on irrigation water use in California;

- Assisted CALFED in quantifying agricultural water conservation targets and developing guidelines to evaluate water conservation proposals.

Dr. Hatchett has prepared numerous project reports, articles in professional journals, and presentations to professional conferences.

**CHRIS KAPHEIM** is General Manager of Alta Irrigation District, a San Joaquin Valley water supplier encompassing 130,000 acres in Tulare, Fresno and Kings Counties. There are approximately 4000 farmers that may utilize surface water within the district. Mr. Kapheim received his B.S. in Soil Science from California Polytechnic State University, S.L.O. Mr. Kapheim is also a graduate of Class XXVI of the California Agricultural Leadership Program.

Mr. Kapheim has been a member of the Tulare County Planning Commission since 1987, and has been recognized for his efforts to conserve agricultural land in association with planned growth and development by being named “California Planning Commissioner of the Year” representing the central region of California. The Kapheim family has been farming in Dinuba, California, since 1907. Mr. Kapheim is the fourth generation to actively partake in the farming enterprise. Currently Kapheim farms grows grapes and plums.

Mr. Kapheim has been active in political issues serving as Chairperson of Governor Davis’ Central Valley Subcommittee on Air and Water, which resulted in two economic summits located in Fresno and Bakersfield. Currently Mr. Kapheim is co-founder and Chairperson of the Kings River Water Political Action Committee. Mr. Kapheim is also Co-Chairperson of the Kings River Legislative Committee. Mr. Kapheim is active on water conservation issues helping formulate and being a member of the Agricultural Water Management Council.

**JACK KELLER** is currently Professor Emeritus of Agricultural and Irrigation Engineering for the Biological and Irrigation Engineering Department at Utah State University, and founder and Chief Executive Officer of Keller-Bliesner Engineering. He received his Ph.D. in Irrigation Engineering from Utah State University, and his M.S. in Irrigation Engineering from Colorado State University.

During his tenure at the University, Dr. Keller has taught and carried out research in sprinkle and trickle irrigation, and served as Department Chairman from 1979 through 1985. While at the University he was the Co-Director (from 1978 through 1989) of the multi-disciplinary Water Management Synthesis Projects, funded by the U.S. Agency for International Development, to provide socio-technical assistance for transferring irrigation technologies worldwide. Before joining Utah State University in 1960, Dr. Keller was the Chief Irrigation Engineer for W.R. Ames Company, a leading manufacturer of irrigation equipment in the United States. Over the years, he has served as a consultant to the Ames Company, as well as several other irrigation system manufacturing companies.

Through his public and private activities, Dr. Keller has provided advisory services on irrigation matters in over 50 different countries in all regions of the world. He is recognized as an international expert in the field of irrigation technology transfer, irrigation and irrigated agricultural policy formulation, and the problems associated with improving irrigated agriculture in both developed and developing countries. He is currently serving as Senior Policy Advisor in Kansas, Egypt, Morocco and California, and as a Senior Integrator with CALFED's Water Use Efficiency Program. He previously served as a panel member on the Independent Review Panel on Agricultural Water Conservation Potential. Dr. Keller is also serving as the Science Liaison Officer and Fellow for the international Water Management Institute, which is one of the CGIAR Centers. He is the author of 88 technical papers, 15 popular articles, 46 consulting reports, 5 handbooks, 2 textbooks, and 4 patents.

**JOHN REPLOGLE** is currently a Research Hydraulic Engineer and Chief Scientist at the U.S. Water Conservation Laboratory in Phoenix. He received his B.S and M.S. in Agricultural Engineering, and his Ph.D. in Civil Engineering, from the University of Illinois.

Dr. Replogle's past work has included leading research related to crop water management and on-farm irrigation system performance, irrigation delivery systems and their impacts on farm operations, and hardware and management techniques to improve delivery system capabilities to deliver water in response to on-farm crop water needs (on-demand). At the Water Conservation Laboratory, he serves as Lead Scientist and Research Hydraulic Engineer for developing control schemes, flow measurements methods related to irrigation management, and technology transfer methods related to irrigation. His work in canal flow measuring methods has led to frequent travels to irrigated areas of the world including Bangladesh, Pakistan, Nepal, and India. Clients for this work have included USAID, USDA, United Nations Development, Education Development Center, Inc., and Winrock International. He has authored or co-authored over 100 technical papers, including several books, book chapters and related articles on irrigation and irrigation system flow measurement, control, and management.

During the past decade Dr. Replogle has earned the Hancor Soil and Water Engineering Award, the Hydraulics Structures Medal, and the Royce J Tipton Award "...for a distinguished record of accomplishments in the field of irrigation and drainage engineering through research and service." He is a member of the American Society of Agricultural Engineers, the American Society of Civil Engineers, the International Commission on Irrigation and Drainage, and the American Association for the Advancement of Science.