UNIVERSITY-BASED WATER RESEARCH: RELEVANT TO SOCIETY?

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In recent years the complexity of a number of water management issues have begun to confound water managers as well as the citizens who pay for water management. Flood and drought planning and management, creation of a Total Maximum Daily Load (TMDL) list per Section 303(d) of the Clean Water Act, and describing the quality of the nation’s drinking water are examples of water issues demanding more science, data and understanding than seems available. The demand for “sound science” to support better water management decision-making is often heard when conflicts develop around particularly difficult water management issues.

How is “sound science” in support of water management procured? The university community, as well as the broader scientific community, uses the concept of “peer review” to judge the “soundness” of science and research. Why is there a call for sound science today when it has been a part of water research for many years?

More specifically, does peer review science insure that science is of interest only to “peers”? Is peer reviewed science performed by mission oriented agencies (e.g. EPA, USDA, & USGS) of interest only to employees of the agency or their disciplinary missions? Is the scientific curiosity of university faculty of interest to anyone other than the curious faculty member? These are not easy questions to answer, especially for the scientists actively involved in peer reviewed science, but the calls for more “sound science” demand that university scientists try to find answers.

UCOWR organized a day-long series of sessions at its 2001 annual meeting in Snowbird, Utah, to examine past and current management methods employed to plan, review, and conduct water research as well as to evaluate the relevance of water research findings to society’s need for new knowledge to support increasingly complex water management decision-making. This issue of Water Resources Update attempts to capture the essence of the dialogue conducted that day as well as synthesize a general direction for future water research that may overcome some, if not all, the perceived short comings of current approaches to water research.

The program consists of nine papers by well-respected leaders in the applicable fields. The session summary presentation by Doug James, at the end of the Update issue, is thought provoking and provides insight on the many complex issues surrounding the organization and administration of water research today. He also summarizes the contributions of each of the presenters to the overall theme of the meeting and suggests that we are just beginning to examine options to truly integrate water science in a way that is relevant to today’s water management decision-making.