

## **Integrated Watershed Management - A New Paradigm for Water Management?**

### **FORWARD**

Water management, as it has a number of times in the past, is undergoing considerable change in the 1990s. Past efforts to break down water management activities into highly specialized subject areas (eg flood control, water supply, recreation, irrigation, and waste water treatment) have resulted in the creation of large institutions that today are increasingly being questioned relative to their ability to meet the needs of the 21st century. Universities have organized themselves to meet the staffing, research and outreach needs of many of these institutions.

Calls to “integrate” water management activities into a more holistic approach are increasingly heard. The goal appears to be to find a more effective way to meet the constantly evolving water-related needs of society.

The terms being used to describe this new approach to water management vary. “Integrated Resource Protection”, “Integrated Watershed Management”, and “Ecosystem Management” are but a few of the terms. To some, these words elicit a sigh of, “Here we go again!” While to others, the words reflect a major paradigm shift in water management. To still others, the terms imply a threat to “take” water from existing uses and give it to other uses.

What is really happening? To answer this question, from a point-of-view of clarification and understanding, the Universities Council on Water Resources’ (UCOWR) 1995 annual meeting: (1) examined the nature of changes taking place in our society’s efforts to manage water, and (2) reflected upon the impacts these changes may have upon the water management education, research and outreach efforts of higher education.

The papers presented herein examine the nature of the changes taking place by; (1) tracing the evolution of water management to this point; (2) discussing the legal underpinning to a more integrated approach to water management; (3) examining the changes taking place in other countries; and (4) studying specific situations (ie case studies) where a more integrated approach is being implemented. The overview provided by the papers should assist us all in better understanding the move toward a more integrated approach to water management and, hopefully, will give us a better frame of reference as we initiate dialogues on how higher education can adapt its offerings and activities to better serve the water-related needs of the 21st century.

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