

**WORK AND ACHIEVEMENTS OF
THE AMERICAN WATER RESOURCES ASSOCIATION**

**INSTITUTIONAL NOMINEE FOR THE
KING HASSAN II GREAT WORLD WATER PRIZE**

October 22, 2008

Introduction - The American Water Resources Association (AWRA) has been recognized for its multidisciplinary diversity since its formation nearly 45 years ago. Its founders recognized the need for an organization that would investigate water resources issues or problems from not just a single discipline perspective, but instead from a balanced approach involved not only hard science but also social science, political science, law and economics. From this need, AWRA was conceived.

AWRA's overall mission, "to advance multidisciplinary water resources education, management, and research" has, throughout AWRA's existence, been consistent with the general theme of the King Hassan II Great World Water Prize - "cooperation and sound management in the development and use of water resources".

AWRA promises a balanced professional approach to solving water resources challenges in a friendly and comfortable atmosphere with its commitment to the three C's: Community, Conversation, and Connections. Community - AWRA is the preeminent multidisciplinary water resources professional association in the United States, and because it has members in 60 countries, also in the world. Conversation - AWRA's annual and specialty conferences address timely and relevant topics on critical issues focused on practical solutions to water resources problems. Connections - AWRA provides both outstanding educational opportunities and opportunities for networking with other water resources professionals through its refereed journal and magazine, its state sections, student chapters, Technical Committees, and its on-line jobs board and resume postings.

AWRA's qualifications for the King Hassan II Great World Water Prize will be discussed in three parts:

1. AWRA's unique approach to water resources issues through its structure, conferences and publications;
2. A specific example of AWRA's balanced approach to water resources policy focusing on four Water Resources Policy Dialogues hosted by AWRA from 2002-2008, and the implications of their results on water policy.

3. AWRA's involvement in water resources activities at the international level.

Part 1: *AWRA's Unique Approach to Water Resources Problems*

AWRA Structure: Diversity is the hallmark of AWRA's unique approach to water resources issues or problems. Because of its multidisciplinary approach to water resources, the organization's members represent the most unique distribution of talent, capability and diversity of any water resources organization in the United States and possibly in the world. AWRA members represent nearly 60 separate and distinct disciplines involved in water resources including hydrologists, engineers, and geologists, ecologists, soil scientists, agronomists, biologists, bacteriologists, foresters, land managers, economists, sociologists, lawyers, educators, and even historians. This diversity of membership reflects the commitment of AWRA that water resources issues or problems can never be adequately addressed by a single discipline.

Diversity of membership goes even further. Unlike many organizations whose members primarily represent primarily one group, AWRA's total membership is divided approximately in thirds between federal, state and local government representatives; academics; and practitioners. This supports the premise that AWRA searches for common sense solutions to water resource problems.

AWRA's diversity is strengthened by membership of students, water resources professionals and retirees. It is further strengthened by its organization - in addition to its national organization, AWRA has State Sections in more than half of the States, and student chapters at many colleges and universities that bring water resources perspectives to AWRA from all levels from local to national.

AWRA values the perspectives of water resources professionals worldwide. Professionals from sixty countries are currently represented in AWRA's membership. A special class of membership for international members provides electronic access to AWRA's publications and Technical Committees while keeping costs for these members to a minimum.

AWRA is characterized by its diversity of governance. AWRA is run by its members through an elected Board of Directors. Interestingly, the numbers of male and female board members usually is nearly equal. From 2000 to 2008, four AWRA presidents have been female.

Conferences: AWRA's Annual Conferences are characterized by diversity of subject matter, of professional disciplines represented, and of organizations represented by the presenters. AWRA's Annual Conferences do not have specific themes. Instead, AWRA solicits abstracts on any water resources related subject. For example, the 2007 Annual Conference had 27 different subject headings for presentations including policy, education, lakes, wetlands, ground water, TMDL's, watershed management, water supply, flood management, water quality, and agriculture. This diversity is unmatched elsewhere

and provides attendees with the broadest possible exposure to practical and proactive solutions to water resources problems.

AWRA sponsors two or three specialty conferences each year. Abstracts submitted for these conferences represent timely and topical specific themes. Recent specialty conferences have been presented on agricultural hydrology, adaptive management, wildland hydrology, GIS, water policy, science into policy, urban hydrology, riparian ecology, tropical hydrology, water resources education, and ecology in the Asia-Pacific region.

Publications: AWRA publishes both a refereed journal and a magazine. Both are published six times per year and are included as member benefits or are available by subscription.

The Journal of the American Water Resources Association (JAWRA) is AWRA's refereed journal. Each issue contains approximately 20 peer reviewed articles on any water resources subject from basic or applied research and/or case studies, to articles on policy, education, and the economics of water. The Journal Editor and Associate Editors are committed to the AWRA concept of practical solutions for water resources problems. The Journal also includes other features such as book reviews and "Discussion" and "Response" articles. The citation index for AWRA journal articles has increased dramatically in the last few years.

AWRA's magazine, "Water Resources IMPACT" is a "publication of ideas." IMPACT articles are meant to inform readers of the latest developments in water resources in a less technical manner than articles published in the Journal. Each issue of IMPACT features from four to seven articles on a specific topic or theme. They are not peer reviewed. The issue prior to each AWRA specialty conference is devoted to the subject of that conference. Otherwise, timely topics are submitted by Associated Editors, approved by the Editor-In-Chief, and are scheduled for publication in subsequent issues. In the last few years, subjects covered by IMPACT issues include Paleohydrology, Performance-Based Management Measures, Infrastructure Crisis, Water Resources Policy, Adaptive Management, GIS, and Hawaii/Pacific Rim Water Questions. The most recent issue is on "Data Management in Water Resources." Regular features of IMPACT include three opinion columnists, one specializing in water economics, another on water law and the third on water resources in general. During 2008, the magazine ran a series of essays by prominent U. S. water resources experts on anticipated water resources problems in the 21st century.

Part 2: Specific Examples – Water Resources Policy Dialogues

During the last 8 years, AWRA has addressed 21st century water policy issues through National Water Resources Policy Dialogues held in 2002, 2005, 2007, and 2008. Water resources policy in the United States is based on an amalgamation of laws and regulations passed or promulgated over more than 100 years to address topics of concern at specific points in time. Accordingly, water policies are ad hoc – interestingly, careful students of

water policy can find numerous inconsistencies and outright contradictions in the body of laws and regulations that comprise these policies. Recognizing the need for cogent and coherent National water policies, ten Federal water agencies and nearly 30 non-governmental organizations provided financial support for the dialogue series.

The purpose of AWRA's water policy dialogues has been to bring together multi disciplinary experts in water resources, including scientists, economists, attorneys, federal, state, and local government representatives, industrial and other non-governmental representatives, and Native American representatives to examine critical water policy issues and to recommend solutions to the President and Congress. The Dialogues were structured in a completely balanced fashion -all viewpoints were given equal weight and there were no right or wrong viewpoints. Water resources professionals in resources development, resources protection, and resources evaluation were grouped together to share ideas and viewpoints. The Dialogues were politically balanced - representatives of both major political parties were given equal time.

More than 250 water resources leaders attended the both the first and second Dialogue and 150 attended the third Dialogue. The fourth Dialogue, by invitation only, was attended by 56 persons. The first three Dialogues included panel discussions by invited experts. Provocateurs drawn from the environmental community, industry, non-government agencies, or state and local organizations gave presentations intended to encourage the independent thinking of the attendees. At the fourth Dialogue, participants discussed the issues in small groups and each group provided their recommendations to a committee of their peers who combined the large number of recommendations into five action items including the immediate need for a national water assessment, a national water vision, the need for better coordination between water agencies and congressional committees, a reevaluation of the federal governments role in water resources and that water resources should be managed in a watershed context.

Based on the results of the Dialogues, letters were sent by AWRA to the President of the United States, to Congressional Leaders, and to the nation's Governors, and meetings were held with officials of both the Executive and Legislative branches of the U. S. Government to explain the results of the Dialogues and the needs for action. The fourth Dialogue participants list of water resources action items are being furnished to the transition team of the President-elect.

The Water Policy Dialogues have resulted in an increased awareness on the part the Administration and the Congress of the water resources problems of the United States. It is expected that the new Administration and Congress will consult the Dialogue results in an updating of the National water resources policies.

AWRA's International Activities

AWRA has become a player in the world stage of water resources in the 21st century. Not only are AWRA's conferences international in scope, but during the last 10 years on

nearly every third year, AWRA has held specialty conferences outside the continental United States in the states of Hawaii and Alaska and twice in Scotland. The variety in themes and locations truly afford water resources professionals worldwide the opportunity to participate and share their knowledge and experience. AWRA also encourages water resources professionals from around the world to submit articles for publication in the Journal of the American Water Resources Association.

Additionally, AWRA has become a significant player in the International Water Resources arena with its ever increasing participation in the World Water Council. AWRA is one of only 3 U. S. organizations and the only non profit to have a seat on the Board of Directors of the World Water Council. AWRA has been an active participant in the 3^d and 4th World Water Congress's and has the lead for one of the six subject areas for the upcoming 5th World Water Congress. Members of AWRA's International Technical Committee have participated in meetings, conferences and seminars worldwide. AWRA understands that water problems do not end at national boundaries, but rather are inter-related worldwide. AWRA believes that cost effective, practical solutions for water resources problems must be available to all countries in the world.

AWRA members individually have been involved worldwide in consultation regarding water resources problems in such diverse locations as the Arabian Peninsula, Pakistan, Indonesia, Argentina and Chile, and China.

Summary - AWRA's philosophy and approach to water resources problems together with its track record of successful Conferences and well-received publications *make it an ideal candidate organization for the King Hassan II Great World Water Prize*. No other organization can lay claim to the unique approach that AWRA provides to water resources issues and problems. Its efforts to bring together water resources professionals from many disciplines to search for practical solutions for water resources problems are unmatched any where in the world. Furthermore, its willingness to look at less popular but overarching issues such as the need for coherent and cogent water policies is consistent with the theme of the King Hassan II Great World Water Prize.