



AIH is here to serve the profession and the members

- AIH is the only organization that certifies professionals in the fields of surface water and groundwater hydrology, and water quality both nationally and internationally.
- AIH provides educational training venues to the professionals in the field of hydrologic sciences.
- AIH speaks to lawmakers on behalf of you and the profession as an advocacy institution.



Inside this issue:

Executive Director Message	2
Founders Award Citation	3
Platte River Recovery Implementation Program	4
Dr. Ashok Shahane	5
New Members	6
39th Congress of the IAH	7
AIH Merchandise	7

President's Message

Emitt C. Witt III, P.H.



I am often asked by members and prospective members about the State of AIH. My response is that the organization continues to focus on the founding principles—to promote hydrology as a science and a profession and to help protect public interest and the profession from non-professional practices. I also mention that AIH is in a state of change, not from the perspective of its founding principles, but from the perspective of how the organization serves its members.

As I approach the halfway point of my office, I could not be more proud of the dedication and enthusiasm of our Executive Committee. We have been busy making numerous changes in our organization. First of all an extensive amount of work has gone into our website. Take a look (<http://www.aihydrology.org/>)! It has a brand new look with much easier navigation. Our front page describes what hydrology is, and why it is important to become a member of AIH. Access to our application process is now easier with links directly to the needed forms that are described not by a form number but by their purpose. Also, explanations about our membership categories are less than two clicks away from the home page with direct links to the application process. Our Constitution and Bylaws are available for all to see and like all our other content is accessible with two clicks. The Awards page has been given a complete overhaul--we added the citations and acceptance letters for many of the past awards. Within the next couple of months you will see even more changes to our site. The ability to complete applications, pay dues with a credit card, open a member account, and purchase AIH merchandize online will be available. As always we invite the membership to provide us with more suggestions for updating our site. We now have an outstanding web developer supporting our efforts—nothing is too challenging for him.

There has been a recent change in our membership categories. During our September 2011 business meeting, we eliminated fees for students. Now all students who have an interest in hydrology can join the organization without the financial burden of membership. Our hope is that more students will join the organization and more will become active at the local level--building student chapters, holding meetings, and supporting the annual conferences.

For those of you who have participated in our annual conferences, you should have noticed that we adopted an unofficial policy to partner with other scientific organizations for planning and executing these meetings. During September 10-13, 2011, our organization successfully co-hosted the annual conference with the American Institute of Professional Geologists in Chicago, IL. The conference, "Geoscience: The Road to a Sustainable Future" was well attended by members from both organizations. More than 70 papers and posters were presented and more than 34 sponsors and exhibitors helped make this conference a huge success. Our own past-president Dr. Miguel Medina delivered an outstanding keynote lecture—"The Global Water Crisis, Energy and Climate Change Uncertainty." Also, during the award banquet Dr. Mustafa Aral was presented with the 2011 AIH Founders Award for his outstanding service to the organization. Both our General Secretary (Ms. Marzi Sharfaei) and our VP for Institutional Development (Dr. Jim Cruise) played a huge role in making this conference a success for both organizations. Our annual conferences are important to this organization. They give us the opportunity to connect with each other, share ideas and concerns, recognize members for their contributions to the profession and/or service to the organization, and provide direction for our union. I encourage you to make attendance at future conferences a priority.

If there is one area where we are failing, it is with our newsletter/bulletin. For years this has been the way our organization has communicated with its members on a quarterly basis. Unfortunately we have lost the regularity of this product because we do not have an active

committee supporting the development of its content. We urgently need an active committee to support this task. I ask that you consider donating your time to the organization to help us build back this capability. Please contact the Executive Director (Dr. Rolando Bravo) with an expression of interest and we will set you up with everything you need to be successful. I also invite all members to submit short articles for publication in our future newsletters. These articles can highlight a project activity, a significant hydrologic finding, recognition of another member, a new publication, or some other news you feel the hydrology community should know about. Rolando Bravo will be soliciting support for newsletter articles in the very near future. Please consider drafting an article for publication in the newsletter.

In closing I would like to summarize who we are as an organization. During the last business meeting our Executive Director presented the demographics of our organization. The results show we are small but growing. Our organization is a cross section of industry, government, and academia and represents 65%, 22%, and 12% of the membership, respectively. These results show that our certification is valued by those practicing hydrology. If you know of colleagues that are not already certified members, please encourage them to become a part of this valued group of professionals.

From the Desk of the Executive Director



Greetings from the Executive Director's office! As most of you are aware our headquarters organization was officially moved from Atlanta, GA to Carbondale, IL in 2008. At that time the Executive Committee officially created the Executive Director position and with it a budget to maintain the office, mailings, internet services, and general planning activities. I volunteered to support that role part-time with a proposal to streamline the management of the organization-- the Executive Committee accepted my proposal and I have made it my mission to implement several procedures to reduce overall management costs, improve financial accountability, and build a larger membership. As the Executive Director, the administration of your headquarters is in addition to my duties as faculty of the Department of Civil Engineering at Southern Illinois University- Carbondale, where I am a professor of surface water hydrology and a graduate advisor. My support to the AIH is on a three month contract that generally follows the summer months when the University is not in session, but I have been able to spread the AIH duties throughout to entire year to maintain consistency in our programs. This arrangement

has made a substantial improvement in our financial bottom-line. For the first time in nearly 7 years, our organization is running with a surplus of funds with fewer members. This gives us the flexibility to build more value for our members—you will see these positive changes as we move forward.

For those of you who recently became members of this organization, you know it is not easy to become a certified hydrologist or technician. Our numbers are small for several reasons, 1) we have thorough reviewers on our Board of Registration that ensure all applicants have the education and experience necessary to be certified; 2) our tests ensure applicants have the rudimentary skills and experience and only about 70% pass; and 3) hydrology is a very specific field with few individuals practicing under that title. We currently have over 500 active members in the organization. Losses to retirements, deaths, and non-renewals have hurt the bottom line of the organization, but these events have not in any way reduced the value of the certification. If anything, it has improved its value since fewer numbers are now officially qualified to perform hydrology. If you have a colleague that should be a member of this organization, by all means encourage it. California is now requiring the PH certification for all individuals performing work related to Storm Water. For more information check: http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo2009_0009_dwq.pdf and in page 32 of this document you will find the certification requirements to be a Qualified SWPPP Developer. I encourage all of you to start spreading the news on this issue for we have an obligation to let our legislators know that AIH exists and it is the only professional association that grants certification following a set of strict rules and review of educational and professional experience.

The more of us that seek official recognition as hydrologists and hydrologic technicians in this organization, the more influence we will have on the direction of applied and research hydrology in the United States and around the world.

For the current year I have collected 71% of the dues. If you have not paid your dues yet, please make that happen. Also, with the coming changes we are making to the AIH website, you will be able to set up an account and pay dues online. We are moving away from paper mailings to reduce costs so expect most of the communications with respect to dues, bulletins, announcements, and other information to come your way via email. It will be important for you to routinely visit the website to update your contact information. We lost many members in the past due to lost contact information. If you are not receiving regular emails from me, then you need to check your current contact information. Until we fully implement our website changes, please contact me with any changes to your contact information.

I would like to encourage our membership to submit articles for future additions of this Bulletin. Articles should be related to our profession, not already published elsewhere, and be short and informative. We encourage you to keep the length to one page and single spaced with no more than two figures. Links to additional information such large reports, papers, or articles are encourage to keep the size of the information piece to a minimum. All prospective articles will be reviewed by our General Secretary and our VP for Communications. Send all prospective articles to my office via email. We also would like to publish the news of our members. News should be related to promotions, moving, new hiring, new grants or contracts, presentations at Professional conferences, and recently received awards.



I hope the information I am providing serves to demonstrate that we are working to improve our Institute. The Executive Committee has been very active; one example of their dedication is the revision of the AIH bylaws for both our Hydrologist and Hydrologic Technician programs. You all participated with your vote. In conclusion, the time is upon us when we need nominations to fill our Executive Committee positions. If you know of someone who wants to be a part of the heart beat of this organization, please send their nomination directly to me. I assure you these nominations will be presented to the Executive Committee at our next meeting.

Always ready to serve your request,

Rolando Bravo

Founders Award Citation

For his dedicated leadership and continued value to the Institute, we award Mustafa M. ARAL the 2011 AIH Founders Award at the AIPG/AIH Conference, Chicago, IL.



Marzi Sharfei (AIH General Secretary) presenting the award to Mustafa at the AIH/AIPG Conference in Chicago

Mustafa received a B.S in Civil Engineering in 1967; an M.S. in Civil and Environmental Engineering in 1969; and a PhD in Environmental Fluid Mechanics in 1971. He is a well published member of the Institute having co-authored more than 16 books and chapters on ground water hydrology and modeling; authored 76 articles in refereed journals; contributed 81 abstracts and articles to conference proceedings; and contributed to more than 43 other reports and publications. Mustafa also has an extensive resume of funded research and has been the principal investigator for 38 projects ranging from 'An Analysis of Convective Diffusion Equation and its Finite Element Solution', to his latest effort to research 'Exposure Dose Reconstruction' for the Centers for Disease Control. He is an active member of numerous National science and engineering organizations including AIH since 1981. Internationally he has been a member of the Association for the Advancement of Mathematical Sciences, the Marine Sciences Research Institute, Computer Sciences Research Institute, International Engineering Analysts, International Association for Computational Mechanics, the NATO Advanced Study Institute, and the European Community FP6-FP7-FP8 proposal review panel. Mustafa is currently a Fulbright Senior Scientist.

Mustafa has received numerous awards during his career that demonstrate his commitment to science and engineering. To name a few, he received the NATO Science Fellowship awards in 1973 and 1976, Outstanding Faculty Award in 1986, the Engineering Technical Excellence Award in 1996, the Honorary Professor of Environmental Sciences in 1998, Excellence in Applied Environmental Health Research in 2006, and most recently the James R. Croes Medal from the American Society of Civil Engineers. His academic contributions have been enormous, having taught classes in fluid mechanics, applied hydraulics, ground water hydrology, computational modeling, hazardous substance monitoring, flow through porous media, environmental geohydrology, and ground water modeling. Mustafa has mentored more than 19 PhD students on topics ranging from aquifer modeling to climate change.

Recognizing Mustafa for the AIH Founders Award comes with the full knowledge that the high level of contribution he has demonstrated throughout his career has been applied to the leadership of this Institute. The Founders Award, established by the AIH in 1990, is to honor the three founders of the organization, Sandor C. Csallany, Roman Kanivetsky, and Alexander Zaporozec, for their initiative and vision in forming the Institute. The award is given periodically at the discretion of the Executive Committee to an AIH member for outstanding and dedicated leadership within the Institute. And, it has been awarded only 14 times since it was established. Mustafa is being recognized for his effort to help with a very difficult transition within the organization—the move from our former headquarters location to our present location, and taking on the task of keeping our newsletter active and professional during this transition. He is also being recognized for his service as an Executive Committee member having served as the Vice President for International Affairs from 2005 until present.

Mustafa has been a loyal member of AIH for 30 years and we have only begun to see the contributions he plans to make within our changing organization.

The Platte River Recovery Implementation Program: Instream Target Flows

By Sira Sartori, H.I.T.

Headwaters Corporation, Executive Director's Office of the Platte River Recovery Implementation Program



Whooping Crane

Least Tern



Piping Plover

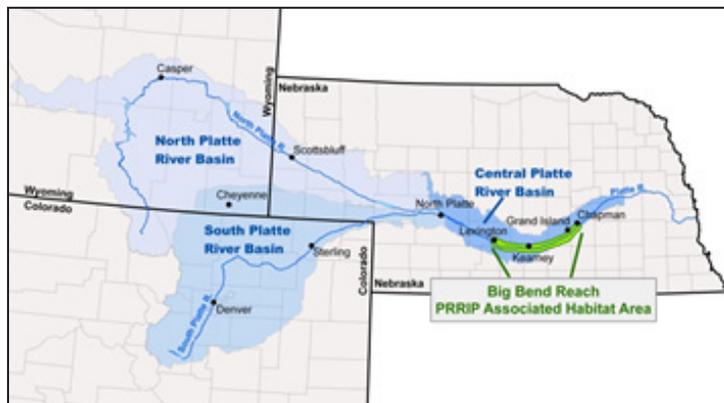
Pallid Sturgeon

Photo Credit: PRRIP.

One of the water objectives of the PRRIP's first increment (2007 through 2019) is to reduce streamflow shortages to recommended target streamflows by 130,000 to 150,000 acre-feet per year. Instream target flow recommendations were developed during the preliminary stages of the PRRIP's inception by the U.S. Fish and Wildlife Service with aid from other scientific advisors. The recommended target flows are used to set daily target water levels in the Platte River to increase streamflow during critical periods based on the various needs of the endangered and threatened species. The targets fluctuate seasonally corresponding to the needs of the species of concern while also supporting the preservation of other native species along the Platte River. Some of the factors evaluated by the U.S. Fish and Wildlife Service when developing the target flow recommendations include biological and ecological criteria such as species life cycles, nesting patterns, migration patterns and habitat maintenance requirements. Daily target flow recommendations range from approximately 600 cubic feet per second (cfs) to 4,900 cfs and are determined based on the time of year and the hydrologic condition in the basin. The target flow instream rates change on approximately a weekly to monthly basis.

The U.S. Fish and Wildlife Service recognized the PRRIP may not be able to accomplish the same instream target flow goals each year based on the local basin conditions and water supply. A methodology was established to characterize the Platte River Basin hydrologic condition into three categories of dry, normal and wet periods. This was done to establish practical and achievable target flow recommendations reflecting "real-time" basin conditions. The designations were developed based on species tolerance of the frequency of flows and key habitat flow requirements. The methodology incorporates several watershed parameters in the South Platte, North Platte and Platte River Basins associated with water supply including gaged streamflow, snowpack, upstream reservoir contents and drought severity indices. These periodic "real-time" condition designations and target flows are updated on a one to three month basis and are available on the PRRIP website on the "Current Hydrologic Condition" webpage.

Prior to the implementation of the PRRIP in 2007, thirteen water resource projects were identified to potentially reduce shortages to the recommended instream target flows by improving flows in the central Platte River. The PRRIP is currently exploring the feasibility of implementing several of the identified options such as groundwater recharge in Nebraska, a reregulating reservoir and incentive-based conservation. The States of Colorado, Nebraska and Wyoming also agreed to three initial projects, one in each state, as part of their contribution to the PRRIP. For additional information on the Platte River Recovery Implementation Program and the water projects, please visit www.platteriverprogram.org.



PRRIP Location Map. Credit: PRRIP

AIH member receives ASCE Life Member recognition: Dr. Ashok Shahane, P.E. PhD P.H.



Dr. Shahane is an outstanding engineer who has been an ASCE member for 36 years, and was honored at the 2010 Life Member Luncheon for his contributions to our profession (*photo with District IV Vice President Jason Haeseler, bottom right*). Dr. Shahane has worked for private corporations, governmental agencies and public-private universities in Florida for the last 37 years. During this tenure, he served in several technical, administrative, managerial, advisory, and teaching positions. He also served on several professional committees and statewide task forces in Florida. He received numerous awards for his meritorious professional work and service. The following is a brief summary of his remarkable life-long contributions as an engineer, hydrologist, author, researcher, and professor.

Education:

PhD in Environmental Engineering, University of Connecticut
 ME in Civil and Public Health Engineering, Univ. of Bombay
 BS in Civil Engineering, University of Bombay

Registrations/Certifications:

Professional Engineer, State of Florida, 1977 to present
 Certified Ground Water Professional, 1985 to present
 Professional Hydrologist, 1986 to present
 Certified Public Manager, FL Center for Public Mgmt, 1996

As a Professional Engineer and a Certified Hydrologist, Dr. Shahane has expertise in planning, design, regulation, and operational aspects of Hydrology, Hydraulics, Water Resources Management, Environmental and Public Health Engineering, Land Development Projects, Pesticide Regulations, and modern Public Management concepts and issues. He developed extensive mathematical models for various river systems and water quality planning models for the Everglades. He also initiated a program for preparing isohyetal rainfall maps for the entire area of the South Florida Water Management District (SFWMD), used by the SFWMD, developers and consultants to develop the design storms for hydrologic and hydraulic computations for watersheds and subdivisions in South Florida.

Since February 2008, Dr. Shahane has held the position of Herbicide Registration Coordinator for the Florida Department of Agriculture and Consumer Services (FDACS). As an environmental specialist, he serves as statewide coordinator and manager for pesticide (herbicide) registrations, experimental use permits and other special types of pesticide registrations. He has exercised independent initiative and judgment in the evaluation of technical issues, information needs, and in communicating and coordinating with affected and interested parties as related to the registration process for pesticide in Florida.

Dr. Shahane published over 150 reports and publications, as well as wrote two books. Most of his publications are available on the web. As a researcher, he contributed to advancements in hydrology and water resource engineering; for example, he developed a computerized simulation procedure for design of rapid sand filters used in water treatment plants, and also developed an interdisciplinary methodology for hydrologic analyses using atmospheric vapor transport data.

Dr. Shahane introduced and taught several undergraduate and graduate level courses as an adjunct professor at the University of Miami, Florida International University, and FAMU-FSU College of Engineering from 1979 to 1997. He also developed very useful refresher courses for the Fundamentals of Engineering (FE) and the Professional Engineering (PE) examinations.

His current memberships include the following organizations: American Society of Civil Engineers (ASCE); Florida Engineering Society (FES); American Water Resources Association (AWRA); Association of Environmental Engineering Professors (AEEP); American Institute of Hydrology (AIH); National Ground Water Association (NGWA); and International Toastmasters Inc.

Dr. Shahane and his wife Meena have been Tallahassee residents for 26 years, and are proud parents of one son, Dr. Amit Shahane Emory University, Assistant Professor of Clinical Psychology).

The Tallahassee Branch of ASCE is extremely grateful to Dr. Shahane for sharing his inspiring contributions to our engineering profession, both through research advancements and his lifetime dedication to young engineers, as well as for the positive impact he has on the environment of our great state!





New Members

Welcome to our newest members. The following are certified Hydrologists, Hydrologic Technicians, and Hydrologist-in-Training that have been added to the organization roster during the last 4 months of 2011.

Name	Certification	City	State
Ardito, Cynthia P.	11-HGW-3007	Albuquerque	NM
Beck, Darren S.	11-HIT-078	Denver	CO
Bovee, Brett	11-H-3008	Fort Collins	CO
Chomycia, Jill	11-H-3016	Chicago	IL
Dessalegne-Agaze Tibebe	11-H-3006	West Palm Beach	FL
Ikard, Scott	11-HIT-083	Golden	CO
Janecek, James A.	11-H-3001	Flagstaff	AZ
Karlovits, Gregory S.	11-HIT-082	Rhode Island	IL
Lincoln, Erin M.	11-HIT-077	Atlanta	GA
Linenfelter, Bret	11-HWQ-3004	Boulder	CO
Marotto, Ronald C.	11-H-3002	Ventura	CA
Miller, Nicholas D.	11-H-3009	Denver	CO
Munger, Natalya M.	11-H-3005	Metairie	LA
Olarte, Julio W.	11-H-3011	Cusco	Peru
Ranade, Rahul	11-HIT-080	Sacramento	CA
Rogalus, Michael III	11-H-3015	Princeton	NJ
Simoes, Ana Paula	11-H-3003	Seattle	WA
Smolen, Katrina	11-H-3017	Grass Valley	CA
Sujit A. Ekka	11-HWQ-3012	Durham	NC
Thompson, David B.	11-H-3018	Minden	NV
Vanderwaal, James A.	11-H-3013	25050 Kuantan, Pahang	Malaysia
Warwick, John J.	11-H-3010	Carbondale	IL
Welsh, Matthew J.	11-H-3014	Denver	CO
Wyss, Jeremy R.	11-HIT-081	Atlanta	GA
Brodzeller, James R.	10-HT-1042	Stevens Point	WI

39th Congress of the International Association of Hydrogeologists

The Canadian National Chapter of the International Association of Hydrogeologists is hosted the 39th Congress of the IAH in Niagara Falls, Ontario, on September 16 - 21, 2012. The venue will be the Sheraton on the Falls, which is readily accessible by those who wish to stay at hotels on the American side of the Niagara River.

The CNC/IAH is pleased to announce that Dr. John Cherry, Dr. Allan Freeze, Dr. Frank Schwartz & Dr. Jozef Tóth will provide keynote talks at the Niagara Falls Congress.

In addition, approximately 50 sessions are planned falling into six general areas:

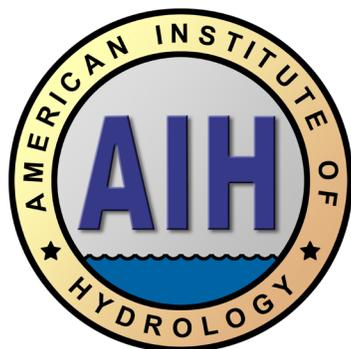
- a) Energy and Climate;
- b) Karst Hydrogeology;
- c) Groundwater-Surface Water Interactions;
- d) Groundwater Management;
- e) Groundwater Quality; and
- f) General Hydrogeology.

AIH members are encouraged to consult the IAH web site for the Congress:

<http://www.iah2012.org/index.php>

American Institute of Hydrology Merchandise

Shirts, mugs, caps, and more! Visit our store: <http://www.zazzle.com/aihstore/>



Front

Back



Front

Back