
BULLETIN

Summer 2005

"American Institute of Hydrology, the Society for Registered/Certified Hydrologists"

Volume 23, Issue 2

AIH Welcomes New Board of Registration Members

The Board of Registration has nominated several new members, and the Executive Committee has approved their appointments. The following is a complete list for the Board of Registration Members:

Rolando Bravo - Board of Registration Chairman

Department of Civil Engineering, Southern Illinois University
Carbondale, IL

G. Douglas Glysson - Board of Registration Secretary

U.S. Geological Survey, Office of Water Quality
Reston, VA

David A. Bird

Colorado Geological Survey
Denver, CO

James F. Cruise

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Huntsville, AL

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Bend, OR

Gary L. Knudson

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Great Falls, MT

Walter F. Megahan

Private Consultant
Sequim, WA

Helen Fox Moody

USDA, NRCS, National Water and Climate Center
Beltsville, MD

Paul H. Roux

Roux Associates, Inc.
Islandia, NY

A. Rudder Turner, Jr.

U.S. Army Corps of Engineers, Northwestern Div., Reservoir Control Center
Portland, OR

David T. Williams

HDR, Inc.
San Diego, CA

Eric S. Wood

EnviroSense, Inc., SM
Londonderry, NH

AIH and all of the membership extend our gratitude to Darryll Pederson and Robert Bubeck for their long distinguished service with the Board of Registration. We wish them well in their retirement.

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Last Chance to Name New Award

In 2006, the American Institute of Hydrology celebrates 25 years of service to the hydrologic profession. To commemorate the occasion, the Executive Committee has established the **Water Quality Award** in addition to its current citations. We are asking the membership to suggest names of people that have contributed significantly to the hydrologic discipline of water quality. This individual should be a clear leader or "Icon" in the field of water quality, having made significant contributions that set the standard for the water quality discipline of the hydrologic science. Please provide information - a brief introduction - as to why you feel this individual should be honored this way.

Send in your suggestion of people that we would name the award after, to the AIH Headquarters - or email us at aihydro@aol.com. The Water Quality Award name will be announced at our 25th anniversary celebration in Baton Rouge, Louisiana meeting in May 2006.

Award Nominations Needed

The nomination period for the C.V. Theis and R.K. Linsley Awards is now open to all members in good standing, until September 1, 2005. The **C.V. Theis Award** was first established in 1986 by the Institute and is named in honor of C.V. Theis for his leadership and contributions to the field of ground-water hydrology. The **R.K. Linsley Award** was established in 1988 and is named in honor of Ray K. Linsley for his leadership and contributions to surface water hydrology. AIH has chosen 33 individuals to receive these awards since their inception. Recipients are chosen because they have shown leadership and have made substantial contributions in their respective sub discipline of hydrology. Send your recommendation with a one page justification to aihydro@aol.com.

Editorial Board

BJ Seaburn, Editor/Publications Manager
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Material published in this newsletter may be reprinted with proper attribution. AIH is a professional organization providing certification of competent professionals, in all fields of the hydrologic sciences. The Institute is dedicated to the advancement of hydrology and hydrogeology as a science and profession, and to the professional education and advancement of its members. Contributions and articles of interest to the general membership of AIH are welcomed and should be submitted to the AIH office. Advertisements should also be submitted to the AIH office.

Advertisement Rates are as follows:

SPACE	RATE	SIZE
1 page	\$595	9½ x 7½"
1/2 page	\$349	9½ x 3½" (1 column)
1/2 page	\$349	4½ x 7½" (1 banner)
1/4 page	\$199	4½ x 3½" (1/2 column)
1/8 page	\$125	2¼ x 3½" (1/4 column)

Advertisers agreeing to publish an ad in three consecutive issues will receive FREE publication in the fourth issue.

Emails for the Executive Committee

M. Marino	mamarino@ucdavis.edu
P. Leahy	pleahy@usgs.gov
A. Laenen	alaenen@earthlink.net
L. Ormsbee	lormsbee@engr.uky.edu
C. Fetter	cwfetter@aol.com
M. Aral	maral@ce.gatech.edu
E. Witt	ecwitt@usgs.gov
R. Hordon	Hordon@rci.rutgers.edu
R. Bravo	rbravo@siu.edu
D. Glysson	gglysson@usgs.gov

Email / Web Page Addresses of AIH

AIH Office	AIHydro@aol.com
AIH Web Page	www.aihydro.org
AIH Web Manager	bjesterstudio@aol.com

PRESIDENT'S MESSAGE

I trust that all of our members are having a good and productive summer. You may have heard that our Past President Pat Leahy has been appointed as the Acting Director of the U.S. Geological Survey. An excellent leader, Pat set the course for continued growth in AIH during his tenure as President. I speak for all of Pat's friends and colleagues in wishing him continued success.

As indicated to you earlier, we are revising and simplifying the **Recertification Process**. From now on, members requiring certification will complete, sign, and return a one-page survey to AIH. Our website (<http://www.aihydro.org>) will soon have the one-page Recertification Survey. The signed, one-page survey will be the member's certification that they have completed the requirements for certification. No other documentation will need to be submitted. However, members will be required to keep the appropriate documentation on file for five years, in the event they are selected for audit. AIH will audit a select number of renewal applications each year to validate the program and monitor compliance.

The nomination period for the **R. K. Linsley** and **C. V. Theis Awards** is open to all members in good standing until September 1, 2005. These awards are named in honor of Ray Linsley and Charles Theis for their leadership and respective contributions to surface-water hydrology and ground-water hydrology. AIH has chosen 33 individuals to receive these awards since their inception in the late 1980s. Nominations for these awards, including a one-page justification should be sent to AIH Headquarters (aihydro@aol.com).

To commemorate our 25 years of service to the hydrologic profession, AIH has established a **Water Quality Award**. We are soliciting nominations for the naming of this award, so as to honor an individual who has contributed significantly to the hydrologic discipline of water quality. Please send your nominations, including a one-page justification and a brief curriculum vitae to AIH Headquarters no later than **September 1, 2005**. The Water Quality Award name will be announced at our 25th Anniversary meeting in Baton Rouge, Louisiana, May 21-24, 2006.

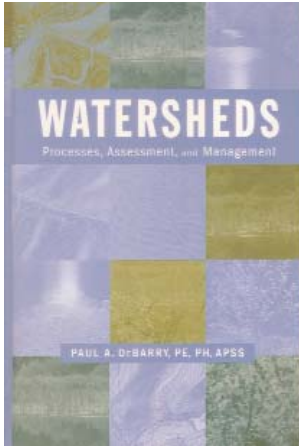
The highlight of our **25th Anniversary meeting in Baton Rouge** will be an international forum, planned by Vijay Singh and Jun Xu, for information exchange and discussions on all aspects of hydrology, hydrometeorology, hydraulics, and water quality issues pertinent to coastal processes and environment. Due to numerous requests, the deadline for paper submission has been extended to **October 30, 2005**. All acceptable papers will be peer-reviewed and published in book form.

We are still planning the program for our 25th Anniversary celebration to be held in conjunction with our technical meeting in Baton Rouge. Doug James is taking the lead of the 25th anniversary events, with the assistance of Alex Zaporozec, Vijay Singh, Ken Brooks, Joe Rosenshein, and Jerry Seaburn.

I encourage the membership to participate in our 25th Anniversary Meeting and Celebration and look forward to seeing you in Baton Rouge next May.

Miguel Marino
AIH President

Book Reviews



Watersheds: Processes, Assessment, and Management

by
Paul A. DeBarry, P.E. P.M., APSS

From John Wiley and Sons, Inc.
www.wiley.com/engineering
(Civil Engineering/Hydrology)
ISBN 0-471-26423-7
Hardcover, List: \$150.00 USD

In his book "Watersheds: Processes, Assessment, and Management", Dr. Paul A. DeBarry has assembled information from numerous sources

and used his considerable experience to create a single volume of wide scope. The topic of watershed management is very broad, with strong influences from physics, chemistry, geology, geomorphology, climatology, plant and soil sciences, biology, and ecology. Watershed management is performed within the context of land-use/land cover, changes due to development, and regulated by numerous policies at various agencies. Any book that attempts to span this broad array of topics will need to include information from vast sources.

In keeping with the sub-title of the book, it is divided into three sections. Section A is titled "Watershed Processes", and includes seven chapters on the topics of: physiography, the hydrologic cycle, geomorphology, surface water bodies, ecology/habitat, and water quality. Section B is titled "Watershed Assessment", and consists of seven chapters. Topics covered in this section include: data collection, GIS, precipitation/streamflow data, watershed hydrology and modeling, stream and river morphological assessment, ecology, and non-point source pollution load assessment. Section C is titled "Watershed Management", and contains seven chapters on the topics of: Agency roles, programs, regulations and policies; systematic watershed assessment, stormwater management at the watershed scale, stormwater management at the site scale, floodplain management and riparian buffers, stream and lake management, and groundwater and integrated water resources management. The book includes two appendices, one on GIS data and selected www sites, and a second on acronyms.

In the preface, Dr. DeBarry states his ultimate motivation for writing this book: "... to go beyond theory, to apply planning, management, and hydrologic engineering principles to practical applications in comprehensive watershed management." His intended audience is "engineers, conservationists, biologists, planners, and organizations".

The breadth of the topic hinders detailed treatment in a single 700 page book. The author acknowledges this by stating in the preface "...because it takes a comprehensive approach to covering the topics required for watershed assessment, the book does not attempt to explain the topics in exhaustive detail, but rather to provide readers with enough information to enable them to understand the process and to point them in the right direction so that they can obtain more detailed information if required."

The introductory chapter begins with a discussion of "sustainability" and management practices. From this starting point, it presents a very broad

view of current practices, with an emphasis on the applications of GIS.

Watershed processes are covered rapidly in the next seven chapters. In Chapters 2 through 4, the treatment of complex physical and chemical phenomena such as groundwater flow, soil-water relations, and nutrients, is too terse to be of significant educational value. It is unfortunate that a great many standard references that convey this information are not cited. This drawback will likely not affect most professional readers because they probably will have many of those books on their bookshelves.

The book avoids the use of differential equations, and often resorts to the use of equations in sentence form in an attempt to communicate mathematical concepts to a wider audience. As a result the treatment of some watershed processes comes across as simplistic. In Chapter 5 "Hydrogeomorphology", the description is more detailed and more effectively conveys how the shape of the land-surface is described with respect to water courses, and the influence of land surface on hydrologic behavior.

Chapter 6 discusses lakes, reservoirs, streams, and wetlands. The author does a respectable job of defining terms. However, the general treatment of limnology is very brief and lacks depth. Chapter 7 on "Ecology/Habitat", contains an introductory-level description of biology within the context of watershed assessment. This chapter also gives an introduction to endangered species. The final chapter in Section A, Chapter 8, discusses the effects of non-point pollution on water quality. This chapter introduces and defines a significant number of important terms and contains useful lists of chemical pollutants and their common sources. This chapter also discusses how some of the watershed-scale physical processes affect water quality.

Section B, "Watershed Assessment", is more detailed. Chapter 9, "Data Collection", and Chapter 10, "Geographic Information Systems", reflect the authors' significant experience with both. The chapter on GIS is quite well put together because it describes the common issues that new GIS users often confront such as map projections and where to find GIS data that exist at numerous State and Federal agencies.. Chapter 11 "Precipitation and Stream Flow Data" provides a coarse overview of available data sources in a general sense. The discussion of stream gaging techniques and weirs will be helpful to readers not educated in such matters. The summary of this chapter wisely points out to the non-professional that "... many years of record are required to perform any type of statistical analysis...". Chapter 12 presents, in rapid succession, a number of standard-practice hydrologic models. Professional engineers and hydrologists will find nothing new in this chapter. However, the reader who is not trained in hydrology will gain some appreciation for the standard-practice approaches used to make hydrologic predictions by reading this chapter.

Chapter 13, "Stream and River Morphological Assessment", presents a thumbnail sketch of fluvial geomorphology, and conveys the concept that streams and rivers work to achieve dynamic, not static, equilibrium. Stream classification is important for communications between disciplines. However, fisheries habitat and sediment transport analyses, for instance, require significant work beyond simple geomorphological classification. These more advanced topics are not presented. The discussion of channel geometry in this chapter would have been greatly aided by the use of an illustration of a natural cross-section rather than the simple trapezoidal cross-section used in the book (Fig. 13.5).

Continued on Page 4

Watersheds - continued from Page 3

Chapter 14 discusses ecology and habitat classification/assessment. This chapter will be of particular interest to non-biologists, including hydrologic professionals, because it presents a reasonable overview of the topic. Chapter 15, on "Non-Point Source Pollution Load Assessment" provides reference for sampling protocols and standards, and wisely points out that the collection of water quality data "can be very expensive..." The TMDL concept is defined, but only simple methodologies to identify TMDLs are discussed. Computer simulation models are introduced by name only, with reference to some standard practice models.

Part C, "Watershed Management", is the strongest section of the book. Chapter 16 "Agency Roles, Programs, Regulations, and Policies", provides a snapshot of the numerous factors that influence management decisions. Readers who are unfamiliar with the litany of regulations and their legislative history will benefit from reading this chapter. Chapter 17 presents a follow-on to the GIS data discussed in Chapter 10, with emphasis on the use of GIS as a tool to generate data for watershed analyses. Here, the author's experience with GIS lends this chapter a polished feel.

The author's experience in watershed management shows in Chapters 18-22, which I consider the strongest chapters in the book. These chapters cover management issues, standard practices, and lessons learned at the regional scale, site (development) scale, in floodplain management, in stream/lake restoration, and in protecting groundwater systems. These chapters include useful descriptions of different management criteria and design goals. Photographs of different structural management options are used together with design drawings to convey the usefulness of best management practices that have been developed over the years.

There are a few general problems with the production of the book. Some of the figures in the text would be much more informative in color. The use of grey-scale graphics makes some of the figures, particularly those which were originally color-scaled maps, very difficult to interpret uniquely. A few of the line figures appear as if they were produced using a simple drawing package.

Many of the practices and methods used by hydrologic professionals produce answers with some uncertainty. Understanding of the magnitude of the uncertainty requires a level of sophistication that this book was unable to cover because of its' breadth. As partial compensation for this, Chapter 13 includes the following note on page 362: "Readers are recommended to read the publications summarized in this chapter, in conjunction with the proper education and training in hydraulics before attempting FGM (fluvial geomorphological) classification or stream restoration." This disclaimer could have been repeated with minor modifications in each chapter of the book.

In summary, I believe that this book will be valuable for entry-level environmental scientists and engineers who work in environmental design, planning and management, and within regulatory agencies. These readers will have the theoretical background to compensate for the understandable lack of detailed theoretical and mathematical treatment of the relevant physical and chemical processes. The strong points of the book, particularly its' emphasis on the current regulatory framework and solid examples of management successes, will greatly assist those who understand the theory but are new to the practice of watershed

management. For this reason, this book will be a valuable text for an upper-level or graduate course on watershed management. A second audience that will benefit from reading this book is lay-professionals, such as non-scientist wetlands commission members, who can use this book as a reference when communicating with or trying to understand the writings of environmental professionals. For these readers, I recommend the purchase of the book "Watersheds: Processes, Assessment, and Management", by Dr. Paul DeBarry.

Review by

Fred L. Ogden, Ph.D., P.E., P.H.

Associate Professor

Department of Civil and Environmental Engineering, U-2037

University of Connecticut, Storrs, CT 06269 USA

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StreamStats: A U.S. Geological Survey Web Application for Stream Information

by

Kernell Ries III, Peter Steeves, Jacqueline Coles, Alan Rea, and David Stewart.

StreamStats is a map-based Web application that makes it easy for users to obtain streamflow statistics, basin characteristics, and other information for user-selected USGS data-collection stations and ungaged sites of interest. This fact sheet provides an excellent description of StreamStats, its components, and its capabilities and limitations. If you would like more information about StreamStats - visit the StreamStats web page at URL:

<http://streamstats.usgs.gov/htlm/index.html>

The Office of Surface Water will be mailing a limited number of printed copies of the fact sheet to each Water Science Center and National Research Program office. The report is also available on-line at URL:

<http://md.water.usgs.gov/publications/fs-2004-3115/>

Image Library Creation

AIH wants to create a photo library of hydrologic-related images for use by AIH and its members. Pictures will be used for educational and promotional activities. A fee will be charged for the use of any photo for commercial purposes. The member contributing the photos will get full credit for the use of the photo.

Please submit any images for consideration to AIH Headquarters.





American Institute of Hydrology 25th Anniversary Meeting

& International Conference

on

“Challenges In Coastal Hydrology and Water Quality”

May 21 - 24, 2006

Baton Rouge, Louisiana, USA

CONFERENCE INTENT

More than half the world's population lives within a distance of 100 km from the coastline, and this number is expected to increase by 25% in the coming two decades. The population growth and urbanization have largely altered the natural pathways of coastal waters that are vital to the coastal environment. As most of the water on land surface enters into the oceans, man's activities in both coastal and inland watersheds have led to increased loading of sediment, toxic substances, nutrients and pathogens with subsequent eutrophication, algal blooms, and hypoxia. Climate change has led to the rise in sea level with loss of coastal wetlands and to increased saltwater intrusion. The recent tsunami in the Indian Ocean has again alarmed man's vulnerability to nature. World's coasts are facing increasingly serious environmental challenges, while it is not clear how to fully measure the complexities of coastal systems.

This conference aims to provide an international forum for the dissemination and exchange of information in coastal hydrology, hydraulics and water quality. The conference will stimulate interdisciplinary research, education, management, and policy making from physical, biogeochemical, and socioeconomic perspectives related to complex environmental systems in coastal regions. Discussions will also take place on hydraulic engineering and structures in coastal areas, which are frequently densely populated or sites of major industrial development. The topic of coastal petroleum and land subsidence will also be addressed.

CONFERENCE VENUE

The conference will be held at:

Holiday Inn Select & Executive Center
4728 Constitution Avenue
Baton Rouge Louisiana

The conference rate will be \$81 plus tax (USD) per night, for single or double occupancy. Rooms must be reserved before **April 19, 2006** by directly calling:

800-678-4065 or 225-925-2244
Online at www.holiday-inn.com (Code C94)

Please indicate that you are participating in the AIH Conference,
Block Code C94.

WHO SHOULD ATTEND

This conference is recommended for scientists and engineers in all fields of the hydrologic sciences, government officials with environmental responsibilities, land-use planners, students of hydrology, hydrologists wishing to become registered, and all other persons dealing with water-related issues. This conference will provide a forum for discussion and exchange of information on a broad spectrum of areas in hydrology, hydrogeology, water-quality, water resources, planning and management, aquatic and marine biology, and climatology.

TECHNICAL PROGRAM

- Plenary Opening Session, Central Theme: The Mighty Mississippi and Coastal Louisiana - Past, Present and Future
- Hydrologic and Coastal Processes
- Hydrological Pathway from Terrestrial to Coastal Ecosystems
- Large River Engineering and Management
- Fluvial Processes and Sedimentation
- Flood Control and Disaster Assessment
- Surface and Ground Water Interaction in Coastal Regions
- Fresh Water Resources and Saltwater Intrusion
- Eutrophication and Hypoxia in Coastal Waters
- Coastal Erosion
- Coastal Wetlands and Floodplains
- Coastal Wetland Restoration
- GIS Applications in Coastal Hydrology Studies
- Extreme Weathers
- Socioeconomic Impacts of Extreme Weathers
- Potential Global Change Effects on Coastal Water Resources
- Coastal Water Quality and TMDLs

! Important Notice about Venue !

All members are asked to book their hotel reservations for our 2006 Conference in Baton Rouge, Louisiana, directly through the hotel, Holiday Inn Select Executive Center, and avoid any internet travel providers. AIH will not be given credit towards its master account commitment should you book your room outside of the hotel. This is part of the way that AIH can contain its expenses for conferences. Make sure you identify yourself as a participant of the American Institute of Hydrology's conference. Thanks for your cooperation.

Continued on Page 6

EXHIBITORS

Exhibit booths will be located in conjunction with poster presentations and break refreshments. This will guarantee direct access to the professionals who are actively employed in the field of hydrology. For information on displaying your product or service at this conference, please contact the AIH office directly at **770-384-1634** or send an email to AIHydro@aol.com.

PROPOSED FIELD TRIPS

- Atchafalaya River Basin (Mississippi Diversion)
- Mississippi River Delta National Wildlife Refuge (deltaic development)
- Constructed LaBranche Wetlands (wetland restoration)
- Houmas House - Plantation & Gardens
- Alligator Bayou - Swamp Tour & Wilderness Adventure

SHORT COURSES

Several technical short courses will be offered in Baton Rouge. Details will be announced soon.

For the first time, AIH will offer classes to prepare candidates to take AIH examinations. Classes for the Fundamentals and Principals and Practices Examinations will be held as part of the 25th Anniversary Annual Meeting. Classes will cost \$100 USD each and will be held on Sunday, prior to the opening of the Annual Meeting.

Also, AIH will administer examinations to pre-approved candidates on Thursday, following the close of the Annual Meeting. No other testing venue will be available for this test. Anyone planning to take an AIH certification examination in May 2006, must plan to take the test in Baton Rouge on May 25, 2006.

CONFERENCE PLANNING COMMITTEE

- Vijay P. Singh, Louisiana State University
- Y. Jun Xu, Louisiana State University
- Pinki Diwan, LSU Foundation
- Jane Hess, BRACVB
- Pat Leahy, USGS
- Miguel Marino, UC, Davis
- Larry Rouse, Louisiana State University
- Daniel Thomas, Louisiana State University
- Clinton Willson, Louisiana State University

Advisory Committee:

- Dr. L. Douglas James
- Dr. Alex Zaporozec
- Dr. Vijay Singh
- Dr. Ken Brooks
- Dr. Joe Rosenshein
- Dr. Gerald Seaburn

Organized with the cooperation of:

LSU
Louisiana State University

REGISTER NOW!

Take advantage of the early registration discount...
Complete and return the conference registration form on the opposite page before March 15, 2006.

Still Time to Submit an Abstract for 2006 AIH Annual Conference



The deadline for abstract submission has been extended. To present a paper, please submit a 250-word abstract of your paper to AIH Headquarters by **October 30, 2005**. Speakers will be notified of their acceptance by **November 30, 2005**. The abstract must include the title of the paper, as well as each author's name, affiliation, address, telephone, fax, and email address. Please indicate your presentation preference (oral or poster) and the name of the presenter. Authors of accepted abstracts will receive instructions for the preparation of full-length camera-ready manuscripts. All accepted papers will be peer-reviewed and published as the Proceedings of the Conference.

Student Competition

The 25th Anniversary Meeting will be an excellent opportunity for student oral and poster presentations. Prizes will be awarded for the Best Student Paper and Best Student Poster. To participate in this event, submit an abstract of 200-250 words to AIH by **October 30, 2005**. Posters and papers accepted for presentation at the conference have an expanded opportunity to be published in the conference proceedings distributed at the meeting.

Registration Form



American Institute of Hydrology 2006 Annual Meeting & International Conference "Challenges in Coastal Hydrology and Water Quality" May 21-24, 2006 Baton Rouge, Louisiana

PLEASE CHECK ONE:

AIH Member Non-Member Conference Participant

FULL REGISTRATION:

Includes admission to all conference sessions, final program, Awards Dinner, Proceedings copy, breaks, planned luncheons and receptions.

AIH Members & Participants	\$350 (by 3/15/06)	\$450 (after 3/15/06)	\$ _____
Non-Members	\$395 (by 3/15/06)	\$495 (after 3/15/06)	\$ _____

ONE DAY REGISTRATION:

Includes admission to all conference sessions, final program and breaks on the day for which the participant is registered.

___ Sunday	___ Monday	___ Tuesday	___ Wednesday
AIH Members & Participants	\$150 (by 3/15/06)	\$175 (after 3/15/06)	\$ _____
Non-Members	\$160 (by 3/15/06)	\$185 (after 3/15/06)	\$ _____

STUDENT REGISTRATION:

Includes admission to all conference sessions, final program, breaks and receptions.

AIH Members & Participants	\$25 (by 3/15/06)	\$30 (after 3/15/06)	\$ _____
Non-Members	\$25 (by 3/15/06)	\$30 (after 3/15/06)	\$ _____

ACCOMPANYING PARTNER:

Includes admissions to breaks and Awards Dinner (Does not include admission to the conference sessions.)

Name: _____

AIH Members & Participants	\$35 (by 3/15/06)	\$40 (after 3/15/06)	\$ _____
Non-Members	\$40 (by 3/15/06)	\$45 (after 3/15/06)	\$ _____

MEALS FOR ONE DAY, STUDENT, PARTNER/SPOUSE AND GUESTS:

Monday Luncheon	\$25 (by 3/15/06)	\$30 (after 3/15/06)	\$ _____
Monday Awards Dinner	\$40 (by 3/15/06)	\$50 (after 3/15/06)	\$ _____
Tuesday Luncheon	\$25 (by 3/15/06)	\$30 (after 3/15/06)	\$ _____
Wednesday Luncheon	\$25 (by 3/15/06)	\$30 (after 3/15/06)	\$ _____

PROCEEDINGS:

Additional Copies	\$60	\$ _____
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TOTAL AMOUNT DUE:

\$ _____

HOTEL DURING MEETING:

CANCELLATION POLICY:

- Before March 15, 2006 - Registration Fee, less \$50.00
- Between March 15, 2006 and April 15, 2006 - 50% of Registration Fee
- After April 15, 2006 - No refund allowed

Cancellation must be received in writing at AIH Headquarters by dates

★ SPECIAL OFFER TO NON-MEMBERS ★

AIH will waive your Membership Application Fee (a \$75 Savings!) For Non-members attending with a Full Registration. Your application must be received at AIH within 60 days from date of the conference. Applications available at Conference Registration desk or Online at www.aihydro.org.

REGISTRATION INFORMATION

Name: _____

Title: _____

Company: _____

Address: _____

City: _____

State _____ Zip: _____

Country: _____

Phone: _____

Fax: _____

Email: _____

Please send information on Short Courses to me? ___ YES ___ NO

PAYMENT METHOD

Full payment must accompany completed registration form.

Check:

Payment made by check (Only U. S. Dollars, drawn on a U. S. Bank) payable to AIH Conference.

Check No: _____

Purchase Order No: (if applicable) _____

Credit Card: (check one)

___ Visa ___ MasterCard
___ Amex ___ Diner's

Card No: _____

Expiration Date: _____

Cardholder Signature: _____

Date: _____

Please return this completed form with full payment to:



AIH Conference Headquarters
300 Village Green Cir., Suite 201
Smyrna, GA 30080, USA
Tel: (770) 384-1634
Fax: (770) 438-6172
Email: AIHydro@aol.com

Organized with the cooperation of:



Job Postings

AIH will post job opportunities for hydrologists nationwide on our website. For more information and ad rates please contact AIH Headquarters at Aihydro@aol.com or call 770-384-1634.

Candidates looking for positions should check our website for new opportunities.

www.aihydro.org

OUTREACH NOTICE - PLUMAS NATIONAL FOREST Quincy, California

The Plumas National Forest, Supervisor's Office, has the following vacancies currently open. These positions are permanent, full-time employment. Positions are being advertised interdisciplinary in professional series:

- Supervisory Biologist (0401) 1 position
- Supervisory Hydrologist (1315)
- Ecosystems Staff Officer, Interdisciplinary

If you have any further questions about these positions or the application process, please call one of the following Mt. Hough Ranger District personnel:

- Jim Pena, Forest Supervisor 530-283-7810 jpena@fs.fed.us
- Rob MacWhorter, Deputy Forest Supervisor 530-283-7810 rmacwhorter@fs.fed.us

TECHNICAL QUESTION WRITERS AIH Examination Committee

The AIH Examination Committee still has a **critical need** for more examination questions. We have had some response from our membership, and we are grateful for the help provided, but we still lack questions for all exams. The Water Quality Principles and Practice examination is currently being developed. Each examination is made up of 100 multiple-choice questions and new exams are made up with questions from our data bank when re-examination is required. We need to have more than 300 questions in each of the data banks. Some questions are interchangeable between SW, GW, and WQ examinations.

For information and instructions on preparing questions, please contact Herbert S. Garn, Chair, Committee for Professional Examinations, at: hsgarn@usgs.gov



Newly Certified Professionals

Name	Certificate No.
Anthony Bonasera West Trenton, NJ	05-HG-1631
Patrick McLarnon St Paul, MN	05-H-1632
Laura Petronis Albuquerque, NM	05-HG-1633
Mathias Collins Rockport, MA	05-H-1634
John Gray Reston, VA	05-H-1635
Raymond Green Baltimore, MD	05-H-1636
Tracy Lund Los Angeles, CA	05-H-1637
Glen Patterson Reston, VA	05-H-1638
Charles Beam Columbia, SC	05-H-1639
T. Todd Menees Woodstock, VT	05-HGW-1640
Rza Mahmudov Azerbaijan	05-H-1641
Alan J Cherepon Austin, TX	05-HG-1642
Thomas Mack Pembroke, NH	05-H-1643
Patrick Tara Tampa, FL	05-H-1644
Wei Zeng Atlanta, GA	05-H-1645
David Evaldi Charleston, WV	05-H-1646
Sandra Eberts Columbus, OH	05-HGW-1648
Jerry Jones Columbia, MD	05-HG-1649
Reza Ghanbari Milwaukee, WI	05-HIT-038
Christian Carleton Rockland, CA	05-HIT-039
Spencer Bohaboy Portland, OR	05-HIT-040
Benjamin Kersens Portland, OR	05-HIT-041
Lorissa Peters North Attleboro, MA	05-HIT-042
M.M. Hussain A.P. India	05-AH-1647

Congratulations and Best Wishes!

Meetings, Conferences and Courses

Association of Dam Safety Officials

September 25-29, 2005
New Orleans, Louisiana

Session Topics and Presenters: Two special workshops - Geosynthetics and Hydrology. More than 65 presentations by experts in such dam safety topics as Dam Failures and Incidents, Emergency Preparedness, Dam Inspections, Removal of Dams, Dam Construction and Rehabilitation, Security at Dams, Seismic Issues, Hydraulics and Hydrology, and much more. 700 attendees expected.

Registration Fee: TBA. Exhibits & Sponsorships: \$675 - \$1,500
Accommodations: Sheraton Hotel New Orleans 888-627-7033

Princeton Groundwater, Inc. The Remediation Course

October 10-14, 2005
Orlando, Florida

Course Description

Princeton Groundwater's Remediation Course is the most comprehensive course on remediation available. Every aspect of remediation is covered from three-dimensional hydrogeochemical characterization, through practical details of all remediation technologies, to computer-simulated remedial alternatives such as Natural Attenuation, Pump & Treat, Funnel & Gate, Interceptor Trenches and complete Hydraulic Containment using barriers and capping. The course also covers many essential topics which are not found in any other courses or books. The course, however, assumes some technical background and experience in contamination problems. Those who have taken Princeton Groundwater's The Groundwater Pollution and Hydrology Course (see course above) should be well prepared as this course is the next step.

The objective of this course is to teach remediation from the key methodologies to collect hydrogeochemical data, through selecting and designing remediation systems based on geological and biological effects and air/water carriers. In addition, participants will use computers to simulate remediation hydrology, groundwater pathways, capture zones, mass transport, natural attenuation, and alternative remediation designs.

Course Topics

- Fundamental and Advanced Concepts of Remediation Hydrogeology
- Fundamental and Advanced Concepts of Fate and Transport
- Field Methods to Determine Remediation Design Hydraulic Parameters
- DNAPL and LNAPL Source Zones and Dissolved Plumes
- Fate and Transport and Enhanced Natural Attenuation for Remediation of MTBE (In Situ and Ex Situ).
- Flux-Based (Mass Discharge rates) Corrective Action and Remediation Vs. Risk-Based Correction Action (RBCA) Based on Monitoring Well Concentrations
- The Remedial Investigation (RI)/Feasibility Study (FS) Process
- Advanced 3D Site Characterization Field Methods

- 2D vs. 3D Capture Zones of Contaminant Plumes
- Strategic Approach to Cost Effective Remedial Design
- Bioremediation: Pathways, Stoichiometry, Kinetics, Engineering Design for InSitu Applications, Limitations and Natural Attenuation
- Remediation and Control Using "Water As A Carrier": The Proper Use of Pump and Treat Systems
- Monitored Natural Attenuation: Limitations And Applications In Remediation
- Remediation Using "Air As A Carrier": Vapor Extraction Systems, Vacuum Enhanced Systems, Air Sparging Remediation Designs
- Ex-Situ Treatment Technologies
- Principles of Advanced Remediation Systems: Fracturing, Reactive Walls, Waterloo's Funnel and Gate, Reactive Zones, Phytoremediation and Enhancements To The Basic Carrier Remediation Designs.
- DNAPL Migration in Heterogeneous Deposits, and Fractured Hard Rock
- Practical Design and Operation of Soil Vapor Extraction and Air Sparging Pilot Studies
- Permeable Treatment Walls and In Situ Chemical Oxidation
- Use of Surfactant Flooding, Water Flooding, Alcohol Flooding, and Thermal Technologies for NAPL Removal
- Remediation Applications of the U.S.G.S.'s MODFLOW using Waterloo Hydrogeologic Inc.'s Visual MODFLOW Pro
- Hands-on Computer Simulation of Exposure Pathways, Capture Zones, and Natural Attenuation Using Visual Modflow, Bioscreen and Prince

Who Should Attend?

- Remediation Experts . Groundwater Hydrologists
- Environmental Scientists
- State/Federal Regulators . Project Managers
- Geologists . Engineers
- Compliance Program Managers . Industrial Site Owners
- Chemists

Course Fee: \$1,395 USD

Course fees cover all course materials and refreshments breaks.

Course Registration:

Early registration is strongly advised for this popular course. Enrollment is limited and applications will be accepted in the order they are received. To enroll today, click here, or call (813) 964-0800 . Please make checks payable to Princeton Groundwater, Inc. The full fee is due two weeks before the first day of class unless prior arrangements for invoicing have been made. This fee will be fully refunded if cancellation is received 2 weeks before the course, thereafter 50% of the fee will be refunded. Substitutions may always be made.

Course Materials and Continuing Education Units

Students will receive over 1,000 pages of lecture notes in an attractive binder. In addition, they will be given a certificate of satisfactory completion and qualify to receive 3.8 Continuing Education Units (CEUs). A record is kept of these units and transcripts may be requested at a later date.

Continued on Page 10

BBHC Symposium to Discuss "Watering the West"

October 13-15, 2005
Buffalo Bill Historical Center, Cody, Wyoming

As Tom Sansonetti puts it, "They say water is the wellspring of life. However, recent experience shows that water is equally the wellspring of lawsuits." And he should know. Sansonetti served as the Solicitor at the U.S. Department of the Interior from 1990-1993 — the nation's largest wholesale water supplier—and as the Assistant Attorney General for Environment & Natural Resources at the U.S. Department of Justice from 2001-2005. Sansonetti brings his wealth of experience on water issues to Cody, Wyoming as he provides the keynote address at the "Culture of Water" symposium **October 13-15 at the Buffalo Bill Historical Center (BBHC).**

Entitled Culture of Water — Watering the West: the Evolution of Ownership, Control, and Conflict in the West, the symposium is being held through the BBHC's Cody Institute for Western American Studies (CIWAS) and in cooperation with the University of Wyoming School of Law and the UW William D. Ruckleshaus Institute of Environment & Natural Resources.

"We're delighted the symposium is bringing 20 renowned water experts from the fields of law, commerce, history, and environmental studies to our community. The discussion is certain to be lively and informative," said organizer, **Dr. Robert B. Pickering**, Deputy Director for Collections and Education at the BBHC. "Their perspectives from history, economics, public policy, and American Indian rights will give participants a number of points of view on water issues. As an added benefit, those in the legal field who attend can receive those all important Continuing Legal Education (CLE) units."

Since hardly a week goes by without a news story related to water issues, the BBHC fall symposium couldn't be more timely. In addition to Sansonetti, other guest speakers are **The Honorable Bill Bradley**, former Senator from New Jersey and **Dr. Charles Wilkinson**, author of *Crossing the Next Meridian: Land, Water, and the Future of the West*.

A welcome reception opens the symposium at 5:30 p.m., Thursday, October 13. Sessions scheduled on Friday and Saturday will tackle topics such as conflicts over jurisdiction, unregulated use, preservation, conservation, emerging water issues, and case studies—such as the Platte River and the Colorado River. Moderators and additional speakers include **Professor Reed Benson** of the University of Wyoming School of Law, **Elizabeth Rieke**, Bureau of Reclamation, Carson City, Nevada; **John Echohawk**, Native American Rights Fund (NARF); **Janet Neuman**, President-Board of Directors of Oregon Water Trust; and **Roger Patterson**, Director, Nebraska Department of Water Resources.

"There's a saying in the Old West: 'Whiskey's fer drinkin', and water's fer fightin'," noted Pickering. "From a local altercation between a ditch rider and a water user, to governments arguing their rights to water flowing from neighboring states, it's clear we're still in the throes of 'fightin' fer the water,' yet today. For anyone fascinated with water issues, this is the place to be in October."

Interested parties may contact Pickering directly at **307.578.4043** or **bobp@bbhc.org** for more information, or check the BBHC Web site at **www.bbhc.org/edu/cultureWater_2005.cfm**.

Seventh International Symposium on Land Subsidence

October 23-28, 2005
Shanghai, P.R. China

For more information contact:
sisols2005@sigs.com.cn OR gonshiliang@sigs.com.cn
website: <http://www.sisols2005.com>

Association of Dam Safety Officials

October 25-28, 2005
Salt Lake City, Utah

Session Topics and Presenters: Advanced Technical Seminar on "Dam Failure Analysis" Instructors: Dr. Danny Fread, National Weather Service (retired); Dr. D. Michael Gee, US Army Corps of Engineers Hydrologic Engineering Center; and Wayne J. Graham, US Bureau of Reclamation. Course Objectives: Students will become familiar with the practical and theoretical aspects of dam breach simulation, and will gain an understanding of most of the key dam breach models being used today, including DAMBRK, HEC-RAS, and FLDWAV. Students will learn what the models do, and will have the opportunity to obtain valuable hands-on experience with their use and capabilities.

Registration Fee: \$300 - \$425

Accommodations: Prime Hotel SLC Convention Center 801-531-7500. \$85 plus tax/night

November 2-4, 2005
Princeton, New Jersey

Session Topics and Presenters: Northeast Regional Technical Seminar on "Hydraulic Analysis for Spillways" Instructors: David L. Moore, P.E., Burgess & Niple, Inc.; Dr. David Ford, P.E., and Dr. Johannes J. Devries, P.E., David Ford Consulting Engineers Purpose: To provide a general understanding of the full range of spillway types available and the hydraulic analyses necessary to design or evaluate the hydraulic capacity and adequacy of a spillway. This course is intended as an introductory course for persons who may have minimal to moderate experience with the design of spillways and are concerned with the safety of existing or proposed dam structures.

Registration Fee: \$250 - \$300

Accommodations: Radisson Hotel Princeton 609-452-2400. \$126 plus tax/night

December 6-8, 2005
Charlotte, North Carolina

Session Topics and Presenters: Southeast Regional Technical Seminar on "Hydraulic Analysis for Spillways" Instructors: David L. Moore, P.E., Burgess & Niple, Inc.; Dr. David Ford, P.E., and Dr. Johannes J. Devries, P.E., David Ford Consulting Engineers Purpose: To provide a general understanding of the full range of spillway types available and the hydraulic analyses necessary to design or evaluate the hydraulic capacity and adequacy of a spillway. This course is intended as an introductory course for persons who may have minimal to moderate experience with the design of spillways and are concerned with the safety of existing or proposed dam structures.

Registration Fee: \$250 - \$300

Accommodations: Hyatt Charlotte 704-554-1234. \$95 plus tax/night

Jan 31 - February 2, 2006
Las Vegas, Nevada

Session Topics and Presenters: West Regional Technical Seminar on "Hydraulic Analysis for Spillways" Instructors: David L. Moore, P.E., Burgess & Niple, Inc.; Dr. David Ford, P.E., and Dr. Johannes J. Devries, P.E., David Ford Consulting Engineers Purpose: To provide a general understanding of the full range of spillway types available and the hydraulic analyses necessary to design or evaluate the hydraulic capacity and adequacy of a spillway. This course is intended as an introductory course for persons who may have minimal to moderate experience with the design of spillways and are concerned with the safety of existing or proposed dam structures.

Registration Fee: \$250 - \$300.

Accommodations: TBA

April 5-7, 2006
Indianapolis, Indiana

Session Topics and Presenters: Midwest Regional Technical Seminar on "Safety Evaluation of Existing Dams" Instructors: Chris J. Veeseart, Douglas D. Boyer, and Jay N. Stateler, US Bureau of Reclamation. This seminar emphasizes the importance of periodic evaluation of the safety of existing dams, and provides specific information and guidance on the visual and instrumented monitoring of the various types of dams and their appurtenant structures. Failure modes analysis is stressed as the basis for an effective and efficient monitoring program. At the conclusion of the course, attendees will have a thorough understanding of the procedures and techniques essential to carrying out meaningful dam safety evaluations and monitoring, and should be able to apply these principles to improve their own effectiveness and the effectiveness of their dam safety programs. A comprehensive seminar notebook will be provided which will serve as a valuable dam safety reference.

Registration Fee: \$250 - \$300

Accommodations: TBA

July & Oct 2006
TBA

Session Topics and Presenters: Advanced Tech Seminar on Dam Failure Analysis

September 10-14
Boston, Massachusetts

Session Topics and Presenters: Dam Safety 2006: ASDSO's Annual Conference Session Topics and Presenters: TBA. Over 700 attendees expected.

Registration Fee: TBA Exhibits & Sponsorships: TBA

Accommodations: Seaport Hotel and Convention Center. \$179 plus tax/night.

International Symposium on Hydrology and Management of Forested Wetlands

April 8-20, 2006
New Bern, North Carolina, USA

For more information contact:

Sharon McKnight at McKnight@ASAE.org

AIH 25th Anniversary Meeting & International Conference "Challenges in Coastal Hydrology & Water Quality"

May 21-24, 2006
Baton Rouge, Louisiana

An international forum for information exchange and discussion on all aspects of hydrology, hydrometeorology, hydraulics and water quality issues pertinent to coastal processes and environment.

Call for Papers: To participate in this special occasion and present a paper or poster, please submit a 250-word Abstract of your paper to AIH Headquarters by October 30, 2005. Speakers will be notified of their acceptance by November 30, 2005.

For additional information contact:

American Institute of Hydrology

300 Village Green Circle, Suite 201

Smyrna, Georgia 30080

PH: 77-384-1634 FX: 770-438-6172

EMAIL: AIHydro@aol.com WEBSITE: www.aihydro.org



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Remember the Alamo

Did you know that AIH receives a commission for all member rental of vehicles through Alamo Rent a Car? A 24-hour reservation is required and can be made by calling **1-800-354-2322** and request your membership ID No. as **690339** with the rate code **BY**.

We Have a New Member Benefit

The American Institute of Hydrology has negotiated a new benefit for our membership. Affective immediately, all AIH members and their immediate families are eligible to apply for membership with **Lockheed Georgia Employees' Federal Credit Union** and receive all of the financial services offered by a Federal Credit Union. On page 11 is an announcement of our affiliation with LGE Federal Credit Union and the list of new benefits for our membership.

To join simply visit their web site at www.lgefcu.org or call **1-800-541-8921** to obtain an application for membership.

Shared Service Centers are located conveniently throughout the nation.

Changes to the Bulletin

Technology advancements and the benefits of the Internet have caused the Executive Committee to consider the elimination of mailing the quarterly Bulletin and offering it exclusively on our website at www.aihydro.org. Effective with this issue, the Bulletin will no longer be mailed to you, but rather you will have access to it on the web site. You will be notified of its availability by email. Please make sure you maintain a current email address with us. We realize that some members may not want to get their Bulletin, news over the Internet and want it mailed, as usual. We will print a small number of Bulletins and mail them to any member that requests it to be mailed.

To request a mailed copy,

Call 770-384-1634 or 1-800-970-4AIH, fax 770-438-6172, email aihydro@aol.com, or write to us at AIH, 300 Village Green Circle, Suite 201, Smyrna, GA 30080.

We know the Bulletin is an important link between leadership and membership, so...

We need to hear from you.
