

### FROM THE SOCIETY MANAGER

Jeanie Merideth

CONGRATULATIONS to the new 2007 AHS Corporate Board:

President: Alan Dulaney (Phoenix) Vice-President: Ted Lehman (Phoenix) Secretary: Marla Odom (Tucson) Treasurer: A Michael Geddis (Tucson)

Directors:
Nick Melcher (Tucson)
Paul Plato (Phoenix)
Le Anna Walker (Phoenix)
Aregai Tecle (Flagstaff)
Dana Downs (Flagstaff)

elect the new officers and plan for the upcoming year.

The following out-going board members were thanked for past service and leader-ship:

Peter Kroopnick Michael Block Bill Petroutson

> Jeaníe Merídeth, Society Manager

The Corporate Board met in February to



### **2007 MEMBERSHP DUES**

Dues, payable to AHS (\$40.00, \$15.00 for students) should be sent to:

Arizona Hydrological Society Jeanie Merideth, Association Manager

PMB 139; 3305 N. Swan Road #109

> Tucson, AZ 85712 Phone: (520) 299-6787

Dues may also be paid using our "Online Payment" system. Go to Www.azhydrosoc.org And click on "Join or Renew Online"

CONTENTS		
Message from the Society Manager		
2007 AHS Annual Symposium		
ISMAR6 & Announcements		
Phoenix Chapter News		
Tucson Chapter News		
Flagstaff Chapter News		
Announcements & Opportunities		
Membership Application		

# Update on 2007 Annual AHS Symposium

### Sponsors/Exhibitors - Mike Block, Symposium **Fundraising Co-Chair, Metro Water District**

Companies and agencies have begun securing their sponsorship or exhibit spaces for this year's annual symposium in Tucson at La Paloma Resort and Spa! The Symposium Planning Committee has reached 45 percent of this year's fundraising goal of \$51,000

A special thanks to Global Water Resources our first Sponsor Level. This generous sponsorship is deeply appreciated by the Arizona Hydrological Society and Southwest Hydrology. Pima County Government will be the sponsor of keynote speaker Peter Gleick from the Pacific Institute. Bureau of Reclamation has offered a generous amount of in-kind services.

The Symposium Committee greatly appreciates Clear Creek our Corporate Sponsors include Associates renewing its sponsorship at a higher level and as our first Supporting Level spon-

Returning Corporate sponsors include Zonge Engineering and Research Organization, WDC Exploration & Wells, URS Corporation, hydroGEOPHYSICS, Archeological Consulting Services. Sandia National Laboratories and INTERA are new Corporate sponsors. Many thanks to our renewing and new Corporate sponsors.

LFR and Central Arizona Project have graciously become our Thursday Lunch Sponsor featuring Colorado Supreme Court Justice Greg Hobbs. Central Arizona Project has again committed to sponsoring the Friday Awards Program and Lunch.

Confirmed exhibitors besides Transwest Geochem, Instrumentation Northwest, ACZ Laboratories, and TAM International.

If your firm or agency would like to also be a sponsor (Sponsor, Supporting, Corporate, Exclusive Event - Wednesday Night Icebreaker, Thursday or Friday Break, Thursday Evening Mixer, or Field Trip) or an Exhibitor, please go to the Symposium AHS website at www.watersymposium.com or contact me at (520) 575-8100 or mblock@metrowater.com.

On the behalf of the Symposium Planning Committee, I would like to again thank all of our donors for your incredible generosity and support for a successful 2007 Symposium.

### 2007 Annual Symposium **Update**

The 2007 Symposium Committee is hard at work preparing for another memorable symposium. In fact, this year's venture with Southwest Hydrology is already proving successful. We recently closed the call for abstracts. and the response has been more then overwhelming record-breaking, in fact. We received 150 individual abstracts plus 13 additional sessions proposed (85 from AZ, 20 from CA, 7 from CO, 24

from NM, 2 from NV, 3 from TX, 4 from UT). And those abstracts and sessions are in addition to the thematic session track being organized by Southwest Hydrology. What an exciting time to be planning updates as planning proa symposium! Nevertheless. our technical sessions subcommittee has a quite a challenge before them to organize the sessions and find the best balance between a manageable number of concurrent sessions and fitting as many as we can into the program.

In addition to technical sessions, your planning committee has quite a few field trips and workshops in the mill. Please visit www.watersymposium.com for gresses. We've reserved a limited block of rooms with excellent rates (\$109 single/ double, and \$83 for government employees) at the Westin La Paloma resort. You can reserve your room now; just click on the "accommodations" link at the top of the web page. Registration will be available in April.

# ISMAR6 & Announcements

6<sup>th</sup> International Symposium on Managed Aquifer Recharge (ISMAR6)

The Arizona Hydrological Society is proud to be a major sponsor of the 6<sup>th</sup> International Symposium on Managed Aquifer Recharge (ISMAR6) to be held at the Pointe South Mountain Resort in Phoenix from October 28 to November 2, 2007. This conference is the world's preeminent conference devoted entirely to managed aquifer recharge and will include 58 speakers from all over the world, numerous poster papers, as well as a daylong field trip to key recharge projects in the Phoenix Metropolitan area of Arizona. Managed aquifer recharge is an increasingly criti-

cal component of water supply throughout the world because it offers the opportunity to inexpensively store and treat water supplies. It is especially critical in desert areas such as in the Southwest United States, Africa, the Middle East, and areas of Asia and Australia. This conference will showcase the many advances and research in aquifer recharge that have been pioneered in Arizona. Dr. Ed Bouwer of Johns Hopkins University will give the keynote address on Monday, October 29, 2007.

Be sure to visit the website: http://www.ismar2007.org

We are pleased to announce that Mr. Paul Plato R.G. and Mr. Tom Suriano, R.G. have joined <u>Clear Creek Associates</u>. Each brings professional experience and expertise that expands and enhances the firm's technical capabilities.

Paul Plato has more than 18 years of experience in hydrogeology and is highly-respected for groundwater modeling and GIS database management. He will be managing a range of projects from groundwater supply assessments using computer models and GIS techniques to groundwater remediation design and implementation.

Tom Suriano brings more than 20 years of experience in managing large scale groundwater remediation projects and has a superb understanding of State and Federal requirements and processes for remediating groundwater contamination. Tom will continue his long association with the Motorola 52nd St. site remediation, but will also be managing other environmental investigations and remediation projects as well as managing groundwater supply projects.



Happy St. Patrick's Day

Donations to AHS Foundation are considered charitable 501(c)(3) for tax purposes.

Donations of any amount may be sent to the AHSF Treasurer or the AHSF President.

AHSF; A. Michael Geddis, Treasurer; 3845 N Business Center Dr #115; Tucson, AZ 85705

# PHOENIX CHAPTER NEWS

### March 2007 Newsletter Submittal

Phoenix Chapter Dinner Meeting Reminder February meeting summary Bouwer Intern Hosts Sought CARSEF – Judges needed Second Annual AHS-AEG Student Night Speakers Sought for 2007 2007 Tentative Schedule

### **March Phoenix Chapter Dinner Meeting**

Our next meeting will occur on March 13<sup>th</sup> at Pizzeria Uno's in Tempe. Our speaker will be Joe Zehnder of ASU. Joe will repeat the talk he gave in Tucson in February for the Phoenix Chapter. His talk is: *The Onset and Development of Monsoon Thunderstorms in Southern Arizona* 

### Abstact:

The regular development of thunderstorms over the mountains in southern Arizona makes them an ideal location to study the onset and transition from shallow to deep convection. The convection develops over the peaks a few hours after sunrise and development occurs slowly and in stages despite the presence of sufficient available energy. One explanation is that the initial shallow convection evaporates through entraining dry environmental air, but in process moistens the environment and conditions it to support further, deep convection. This notion was explored during summer 2006 with support from the National Science Foundation. The Cumulus Photogrammetric In-Situ and Doppler Observations (CuPIDO) program utilized a network of surface weather stations, 2 mobile sounding systems, stereo pairs of digital cameras and an instrumented aircraft to examine the onset and evolution of monsoon thunderstorms. This talk will describe the CuPIDO 2006 field program and present some preliminary results.

Bio: Joseph A. Zehnder, Ph.D. has 16 years of experience in performing state-of-the-art meteorological and numerical model studies of phenomena related to the semi-arid southwest and tropical East Pacific. Dr. Zehnder's areas of expertise include large and mesoscale tropical meteorology, observations and modeling of moist convection, and urban meteorological modeling. Dr. Zehnder is the Director of the Southwest Consortium for Environmental Research and Policy, which is a consortium of ten universities in the United States and Mexico that is funded by the EPA to engage in applied environmental research related to the US/Mexico border. He has earned Batchelor and Master of Science degrees in Physics from the University of Illinois and a doctorate degree in Meteorology from the University of Chicago. Dr. Zehnder has also completed post-doctoral training in dynamic meteorology at the

NASA Goddard Space Flight Center's Laboratory for Atmospheres.

Where: Uno's Restaurant, Tempe

When: March 13th, 5:45 Dinner and Socializing, 7:15 meeting

Cost: \$15 for members and \$5 for students

RSVP with Beth Proffitt by Mar. 12<sup>th</sup> at eproffitt@transgeo.com or (602) 437-0330.

### **February Meeting Summary**

At our February Meeting, Jeff Trembly, RG of Mogollon Environmental Services LLC, presented a current case study using a multi-pump, multi-phase extraction (MPE) technique to remediate a leaking underground storage tank in Young, Arizona. His project site was located in the town of Young within close distances to 3 domestic wells. Thus, the site was not a good candidate for natural attenuation and some action was necessary to clean up the free product located at the site. Jeff looked at the option of the typical single-pump Dual Phase Extraction (DPE), but knew that the site conditions would push the limits of this technique's effectiveness. These limits included working under the canopy of an old building, depth-towater around 35 feet, and finding 1,2 DCA at the site, which must be separated from the groundwater (does not degrade).

That's when he started looking at the option of a Multi-pump Dual Phase Extraction, or multi-phase extraction (MPE) for short. The advantages included proven performance under a wide range of conditions, readily available equipment, minimal disturbance to site operations, short treatment times, increased extraction rates, and can be used under buildings and other locations that cannot be excavated. Despite disadvantages (effectiveness less certain with soils of low permeability, complex monitoring and control during operation required, possible costly atmospheric and groundwater treatments), the advantages of MPE effectiveness helped Jeff decide on this technique.

Once the decision was made to go with MPE, Jeff kept his design focused on 3 main things: keep it simple, get it at Grainger (hardware store), and do no harm. He also utilized the mantra quoted from Herman Bower: "Start small, go slow, and learn as you go." Thus he showed us how he built most of his SVE system with mostly supplies from Home Depot including an air compressor (rather than a larger, customized SVE air compressor). Some things that he was forced to get outside of the hardware store were his simple low flow down hole pumps, his product drums, and the oil/water separator. Jeff's main key to design included relatively low flow groundwater pumping and relatively high vacuum SVE system, which re-

(Continued on page 5)

## Phoenix Chapter cont.

(Continued from page 4) quired proper pump and compressor sizing.

Once built, Jeff has been running his system Aug-Oct of 2005 and May-Oct 2006. He avoids running the system during freezing temperatures, placing oxygen release compounds in the wells during that time. So far, 20-25 gallons of product have been recovered from the site, with about 75,000+ gallons 2007 Tentative Schedule treated (average of 400 gallons per day). Early results also show a decrease of an order of magnitude in Benzene concentration at the site.

Everyone at the meeting enjoyed Jeff's high spirited, informative presentation. His talk was punctuated with sweeping gestures made with his unique laser pointer (a child's toy sword), which also was used to threaten anyone who dared to make any disparaging remarks.

### **Bouwer Intern Scholar Hosts Sought**

The Phoenix Chapter is seeking corporate or agency hosts for the 2007 Herman Bouwer Intern winner. The applications are currently being reviewed, but we need to identify firms or agencies interested in hosting the winner. Past years' recipients have evolved into excellent future employees! Here's your chance to test drive a prospective new employee and have AHS foot the bill! How can you resist? Hosts receive the service of the intern for 2 to 3 weeks. If you are interested in this great opportunity, please contact Steve Acquafredda at sacquafredda@dswa.net or (602) 217-1038.

### CARSEF – Judges Needed

March 19-21 will be the Central Arizona Regional Science & Engineering Fair at the Mesa Convention Center. The Phoenix Chapter has provided awards to outstanding projects in water related sciences. With the help of the Central Arizona Project we have given out \$800 over the past two years. We are looking for assistance to review and select award winners in for three grade levels. The judging will require about a half day's time on the March 20th. If you are interested, please contact Paul Plato at pplato@clearcreekassociates.com or 480-659-7131.

### **AHS-AEG Student Night**

On April 18th, AHS will jointly host the 2nd Annual Student Night at the University of Arizona Memorial Union. The event will bring together students and professionals to share interests, network, and discuss employment opportunities. The event will feature a social networking hour followed by dinner and then the main event, presentations by students of their work. The best presenter(s) will receive cash in recognition of their efforts!

### **Speakers Needed**

We've filled out the schedule for 2006, but we are always looking for dinner speakers for future meetings. If you are interested in speaking at a dinner meeting sometime next year, or know someone who could give a good talk, please contact Mike Hulst at mhulst@eecphx.com or 602-248-7702.

- March 19-21 Central Arizona Regional Science & Engineering Fair, Mesa
- April 18th AHS-AEG Student Night in Tucson Dinner speakers: April and beyond – maybe you?!

### **Phoenix Chapter Officers** President:

TED LEHMAN

JE FULLER HYDROLOGY & GEOMORPHOLOGY E-Mail: ted@jefuller.com

### Vice-President: MIKE HULST

EEC INC E-Mail: mhulst@eecphx.com

### Treasurer:

BETH PROFFITT TRANSWEST GEOCHEM INC E-Mail: eproffitt@transgeo.com

Secretary: MATTHEW BEVERSDORF **ADWR** 

E-Mail: mabeversdorf@azwater.gov

### **Board Members:**

JACOB MILLER **URS CORP** 

E-Mail: Jacob-Miller@URSCorp.com

CHRISTIE M O'DAY ARCHEOLOGICAL CONSULTING SERVICES LTD E-Mail: coday@acstempe.com

### **Corporate Board Members:**

ALAN R DULANEY E-Mail: ARDulaney@adwr.state.az.us

PAUL PLATO **CLEAR CREEK ASSOCIATES** E-Mail: pplato@clearcreekassociates.com

LEE ANNA WALKER ARCADIS GERAGHTY & MILLER INC. E-Mail: lwalker@arcades-us.com

# **TUCSON CHAPTER NEWS**





# Henry Darcy Distinguished Lecture Series in Ground Water Science

What the Heck Is a Phreatophyte? A Field Investigation of Ecohydrologic Processes in Stream-Aquifer Systems

James J. Butler Jr

Geohydrology Section of the Kansas Geological Survey at the University of Kansas

An overview of a multidisciplinary investigation of water use by phreatophytes—plants that utilize ground water—in semiarid riparian zones. Ground water consumption by nonnative phreatophytes is an issue of considerable concern in the western United States, as well as elsewhere. The lecture describes the various components of the water budget in stream-aquifer systems, with an emphasis on the contribution of riparian zone phreatophytes. The presentation highlights the ecohydrologic information embedded in water level data from shallow wells, and demonstrates its value for studies of riparian zones stressed by invasive phreatophytes and other factors

March 7, 2007 4:00pm Chavez Building, rm 110

Refreshments will be provided by the Arizona Hydrological Society prior to the lecture



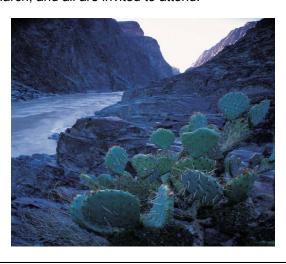
## **Tucson Chapter cont.**

Two great lecture series are coming to Tucson in March, and the Tucson Chapter wants to invite everyone interested in hydrology to attend these two excellent presentations.

The first presentation is part of the Henry Darcy Distinguished Lecture series. This year's Darcy lecturer is James J. Butler, Jr, of the Kansas Geological Survey, and he will be talking about phreatophytes: "What the Heck is a Phreatophyte? A Field Investigation of Ecohydrologic Processes in Stream-Aquifer Systems." Don't miss this fascinating discussion of the effects of phreatophytes on the water budgets of stream-aquifer systems, particularly in the semi-arid West. The lecture is scheduled for 4:00 PM in the Chavez Building, Room 110, on the University of Arizona campus.

The second presentation is the Kisiel Lecture, also presented at the University of Arizona on March 28. The time and place are not yet posted, and emails will be sent to all Tucson Chapter members once the venue is known. The speaker is Dr. Edward A. Sudicky of the University of Waterloo, whose talk is entitled "Insights from Coupled Surface/Subsurface Simulations: From the Scale of a Rainfall-Runoff Experiment to the Continental Scale over an Ice Age." This talk will move from the scale of controlled experiments to continental changes in aqueous geochemistry across Canada due to the last great climate change.

The Tucson Chapter will provide snacks and beverages for both events. These two lectures will take the place of a formal chapter meeting for March, and all are invited to attend.



### **Tucson Chapter Officers**

### President:

MARLA E ODOM ERROL L MONTGOMERY & ASSOC INC E-Mail: modom@elmontgomery.com

### Vice President: ROBERT MCGILL HYDROGEOPHYSICS

E-Mail: rob@hydrogeophysics.com

### Treasurer:

MIKE MAHAN AZ GEOLOGICAL SURVEY E-Mail: mike-mahan22@yahoo.com

### Secretary:

DAN GUIDO ERROL L MONTGOMERY & ASSOC INC. E-Mail: <a href="mailto:dquido@elmontgomery.com">dquido@elmontgomery.com</a>

### Student Representative: AIDA ARIK

University of AZ AARIK@HWR.ARIZONA.EDU

### Corporate Board:

A MIchael GEDDIS WATER MANAGEMENT CONSULTANTS INC E-Mail: mgeddis@watermc.com

NICK B MELCHER US GEOLOGICAL SURVEY E-Mail: nmelcher@usgs.gov

# FLAGSTAFF CHAPTER NEWS

The Flagstaff Chapter started 2007 with a Chapter Dinner Meeting on February 6 at Charly's. Equal attendance by students and professionals rounded out the discussions on field trips and events, Chapter updates, and Corporate Board agenda items. The next meeting is tentatively scheduled for Thursday March 1, 2007. Meeting time and place TBA. Some items on the agenda will include elections of Chapter officials, an update from the Corporate Meeting, and updates on local field trips and events. We hope to see all northern Arizona water professionals and students at the next meeting!

The Flagstaff Chapter is excited to sponsor receptions for two distinguished lecturers coming to northern Arizona over the next several weeks. The first of these lectures is on Wednesday February 21 at 4pm. The 2007 Association of Engineering Geologists Jahns Lecturer, John Moylan, will discuss the Geologic influences on mid-continent dams. The second lecture is at 4pm on Tuesday March 6. The 2007 NGWA Darcy Lecturer, Jim Butler of the Kansas Geological Survey, will discuss: "What the Heck Is a Phreatophyte? A Field Investigation of Ecohydrologic Processes in Stream-Aguifer Systems". Both talks will be held at the NAU Geology Building - Room 103. For more information please visit http://www4.nau.edu/ geology/seminar.html. Both receptions will be held at 6pm at the Mezzanine at Charly's (Weatherford Hotel) following the talk. Appetizers will be provided.

Abstract for John Moylan talk:

Geology and geologic processes strongly influence the siting, design, and operation of dams. Geologic site characterization for dam projects is among the most interesting challenges for the engineering geologist. This presentation will focus on some representative examples of the influence of geology on the design and performance of a number of Corps of Engineers' Kansas City District dams. All of the dams are either earth fill or rock fill and are founded on what appears at first glance to be rather monotonous flat-lying sedimentary rocks. However, successful dam construction on the apparently mundane geology can present significant challenges and requires careful attention to detail.

Abstract for Jim Butler talk:

"What the Heck Is a Phreatophyte? A Field Investigation of Ecohydrologic Processes in Stream-Aguifer Systems" is an overview of a multidisciplinary investigation of water use by phreatophytesplants that utilize ground water—in semiarid riparian zones. Ground water consumption by nonnative phreatophytes is an issue of considerable concern in the western United States, as well as elsewhere. The lecture describes the various components of the water budget in stream-aquifer systems, with an emphasis on the contribution of riparian zone phreatophytes. The presentation highlights the ecohydrologic information embedded in water level data from shallow wells, and demonstrates its value for studies of riparian zones stressed by invasive phreatophytes and other factors.

**Flagstaff Chapter Officers** 

President Aregai Tecle Northern Arizona University aregai.tecle@nau.edu

> Secretary Erin Young NAU-Student

emy5@dana.ucc.nau.edu

Treasurer Dana Downs-Heimes ddownshe@ch2m.com

# **ANNOUNCEMENTS & OPPORTUNITIES**

### To Interested Parties:

The Arizona Water Protection Fund (AWPF) Commission will be initiating its FY 2008 grant cycle on March 12, 2007. The Commission provides

funding for projects that directly maintain, enhance and restore river and riparian resources; implement innovative river and riparian research; and implement water conservation measures or programs outside of the 5 Active Management Areas. The Commission anticipates that approximately \$4 million will be available for grant awards. The Commission will be accepting applications under all funding categories (capital, research and water conservation).

The FY 2008 Grant Application Manual will be available at all grant application workshops, or can be downloaded from the AWPF web site at: www.awpf.state.az.us beginning March 12, 2007. To have a copy mailed to you, please contact Mary Lou DeLeon or Michelle Moreno at (602) 771-8528.

Grant Application workshops will be held in Phoenix, Tucson, Flagstaff, Show Low, Sierra Vista, Lake Havasu, Prescott and Safford. The workshop schedule is attached. Please RSVP to rjheld@azwater.gov to indicate which workshop you would like to attend. Workshops will be canceled if at least 5 people have not confirmed their attendance within 2 business days prior to the scheduled workshop date. In the event a workshop is

canceled, notices will be sent via e-mail to those who have registered.

Pre-application consultations may be scheduled with AWPF staff from March 12 - June 8, 2007. Please Contact Mary Lou DeLeon or Michelle Moreno at (602) 771-8528 to schedule a consultation.

Grant applications will be due no later than June

13, 2007 by 3:00 p.m. The Commission will make grant award selections on October 15, 2007.

Thank you for your support and interest in the Arizona Water Protection Fund.

If you would like to be removed from this distribution list, please send your request directly to me at: rjheld@azwater.gov.

Best regards,

Rodney J. Held

Executive Director - Arizona Water Protection Fund Commission:

Deputy Assistant Director - Statewide Planning Division Arizona Department of Water Resources

3550 N. Central Avenue Phoenix, Arizona 85012

(602) 771-8525

e-mail: rjheld@azwater.gov ADWR Web Site: www.azwater.gov AWPF Web Site: www.awpf.state.az.us

### Climate and Riparian Areas Workshop:



### Connecting the Dots -

Climate Change/Variability and Ecosystem Impacts in Southwestern Riparian Areas

> April 11-13, 2007 Hotel Casa Grande

777 N. Pinal Avenue Casa Grande, AZ 85222

Join leading scientists and educators to learn more about emerging climate and riparian area ecology research. The workshop offers an opportunity to interact with scientists to discuss and help create practical tools for land managers and decision-makers to link climate and natural resources.

Watersheds — Alluvial Aquiters — Floods/Droughts — Modeling — Ecological Response

Registration fee includes workshop participation and materials, field trip, breaks, lunches, and Wednesday banquet (banquet not included in student fees).

Special rate of \$60 per night (single or double), at Hotel Casa Grande (good through March 11, 2007). Call (520)426-3500 to make your reservation.



Registration before March 23: ARC Members \$150 Nonmembers \$170 Students \$65

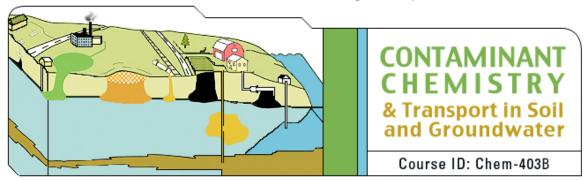
Students \$65 Registration after March 23: ARC Members \$170 Nonmembers \$190

Look for registration information online at the URL below:

To register, go to: http://azriparian.asu.edu/2007/registration.htm
Or to: http://cals.arizona.edu/climate/index.htm for more information

# **More Opportunities**

### **The Northwest Environmental Training Center presents:**



Contaminant Chemistry and Transport in Soil and Groundwater - An Overview of Petroleum, Chlorinated Hydrocarbon, and Metal Behavior in the Environment

Course I.D. CHEM-403B

March 14 - 15, 2007, 8:30 A.M. to 5 P.M. (2 Days)

Best Western Central Phoenix Inn

1100 North Central Avenue

Phoenix, AZ 85004

Instructor: Erick McWayne, Northwest Environmental Training Center

For more information: http://app.e2ma.net/app/view:CampaignPublic/id:7719.512024750/rid:b019f57c9a6d992c44da0d76513e6d9a

**Description:** This course provides participants with an overview of key concepts essential to understanding environmental contamination and provides a fundamental understanding of the release and transport of chemicals in soil and groundwater. This material is intended for environmental professionals who are not chemists, but who require a fundamental understanding of contaminant behavior and monitoring parameters for their work. This course is recommended for all environmental professionals working with contaminated soil and water with minimal formal training in this subject. The course material will greatly enhance on-the-job training. It is also recommended for project managers seeking a review of the subject.

**About the Instructor:** Mr. McWayne has extensive experience with soil, groundwater, and geophysical investigations for the characterization of contaminant transport and fate. As an environmental consultant, Mr. McWayne served as a project manager for remedial investigation and feasibility studies at numerous Department of Defense and other client sites, conducted environmental compliance audits, and performed pollution prevention audits and siting studies for electrical power plants. He currently serves as Executive Director of the Northwest Environmental Training Center and teaches workshops in transport and fate, environmental chemistry, and hydrogeology across the country.

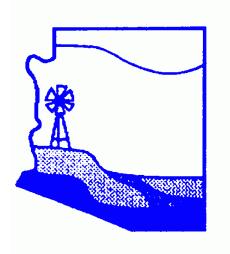
# **More Opportunities**

# FY 2008 Arizona Water Protection Fund Grant Application Workshops

Location	Date	Time	Address			
Safford, AZ	Wednesday, March 14, 2007	5:00p.m 7:00p.m.	Graham County General Services Bldg., Assembly Room 921 Thatcher Blvd. Safford, AZ 85546 (928) 428-3250- Cindy Norris			
Sierra Vista, AZ	Thursday, March 15, 2007	3:00р.т 5:00р.т.	Sierra Suites 391 E. Fry Boulevard Sierra Vista, AZ 85635 Apache Conference Room (520) 459-4221			
Tucson, AZ	Friday, March 16, 2007	3:00p.m 5:00p.m.	Arizona Dept. of Water Resources 400 W. Congress, Suite 518 Tucson, AZ 85701 Conference Room (520) 770-3800			
Flagstaff, AZ	Monday, March 19, 2007	3:00p.m 5:00p.m.	Flagstaff Public Library 300 W. Aspen Avenue Flagstaff, AZ 86001 Jan Romero Stevens Conf. Room (928) 779-7670			
Lake Havasu, AZ	Tuesday, March 20, 2007	3:00p.m 5:00p.m.	Hampton Inn 245 London Bridge Road Lake Havasu City, AZ 86403 London Conference Room (928) 855-4071			
Prescott, AZ	Thursday, March 22, 2007	3:00p.m 5:00p.m.	Arizona Dept. of Water Resources 2200 E. Hillsdale Rd. Prescott, AZ 856301 Conference Room (928) 778-7202			
Show Low, AZ	Tuesday, April 3, 2007	3:00p.m - 5:00p.m	Sleep Inn 1751 W. Deuce of Clubs Show Low, AZ 85901 Conference Room (928) 532-7323			
Phoenix, AZ	Wednesday, April 4, 2007	3:00p.m - 5:00p.m	Arizona Dept. of Water Resources 3550 N. Central Avenue Upper & Middle Verde Conf. Rooms (602) 771-8528			

<sup>\*\*\*</sup>Please RSVP to <a href="mailto:ripeld@azwater.gov">ripeld@azwater.gov</a> to indicate which workshop you would like to attend. Workshops will be canceled if at least 5 people have not confirmed their attendance within 2 business days prior to the scheduled workshop date. In the event a workshop is canceled, notices will be sent via e-mail to those who have registered.

# **MEMBERSHIP APPLICATION**



# Arizona Hydrological Society

Jeanie Merideth Association Manager PMB #139; 3305 N. Swan Rd. #109 Tucson, AZ 85712 (520)299-6787 Fax: (520)299-6431 azhydro@comcast.net

www.azhydrosoc.org

\$Herman Bouwer Intern Scholarship fund (Phoenix), \$Leonard C. Halpenny Intern Scholarship fund (Tucson), \$for the SARSEF Scholarship fund, and/or \$for the state-wide AHS General Scholarship fund.  Total amount enclosed: \$	Work Phone:Home Phone:Fax:	Mailing Address:	Company:Email:	Name:Position:	PMB #139; 3305 N. Swan Rd #109, Tucson, AZ 85712  Membership Application (Dues: 1 year \$40, \$15 for students)	ARIZONA HYDROLOGICAL SOCIETY of Legals Merideth Association Manager
	Flagstaff			Tucson	Chapter Affiliation:	