



January, 2009, Newsletter

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Viewpoint: Here to Stay

Panic. It is a major driver behind the economic meltdown that took even the financial professionals by surprise, as unbounded fear caused market contractions that took almost everyone's breath away. Economic historians used to call major 19th Century recessions "Panics," and I would not be surprised if this last year became known as the "Panic of 2008."

But if emotion is a driver in economic crashes, the water world is driven by another need: thirst. Our crops are thirsty, our industries are thirsty, and our population is thirsty. Thirst knows no wild roller-coaster rides. Our civilization depends on reliable sources of fresh water of good quality, particularly in the semi-arid Southwest. That constant demand means water professionals also remain in constant demand. Adverse economic tides may slow down our work load for a while, and we may have to be agile in responding to new challenges, but we are not going away. I want to affirm to you that our future in the water world is bright. Indeed, in the long run we are more likely to run out of water professionals than work for them to do.

Your Arizona Hydrological Society is also here for the long run. We had a very successful year in 2008, with no hint of panic. We have a new Executive Director who is doing a great job. Thanks to a great effort by Matt Beversdorf our revamped Web site has a clean and professional look. We had a successful symposium that introduced the Society to many new people, we have had interesting field trips, and our Chapter meetings remain lively. A reminder to those who are staying nimble in the face of challenges—your Chapter meetings are a great place for networking and keeping up with advances in hydrology. As I am optimistic about the future of the water world, so too am I optimistic about the future of the Arizona Hydrological Society. I think 2009 will be a great year for hydrology and water professionals. I invite you to become more active in your Society, and join with us all as we embark on this year's journey.

Alan Dulaney,

AHS Corporate Board President, 2009

2009 Membership Dues

Your membership may be renewed for 2009 by credit card through the AHS website at <http://www.azhydrosoc.org/> or by mailing a check to the Arizona Hydrological Society, PO Box 32898, Tucson, Arizona, 85751. Dues remain at \$45.00 year for regular membership and \$15.00 for students. Thank you all for a great 2008 and for your continuing support in 2009.

For those who attended the 2008 Flagstaff Symposium, be reminded that membership dues for 2009 were included in the registration fee.

---Nick Melcher, Executive Director

Phoenix Chapter

Phoenix Chapter Annual Kickoff!

Please join us at 5:30 pm, Thursday January 15th at the Sonoran Brewhouse for the Phoenix Chapter 's annual kickoff meeting. Come see what 's coming up in 2009 in the Phoenix Chapter. We hope to inspire folks to step up and in to the numerous exciting and rewarding activities we have planned in '09. In order to entice your attendance, we 'll be springing for dinner (i.e. it 's free to come eat with us!). The Sonoran Brewhouse is located at 322 E. Camelback, so easy access can be gained via the new light rail which will be operational by then. Come try out the light rail, join us for dinner, meet some colleagues, and find a 2009 AHS activity you 'd like to champion! We need you 're help and here 's an excellent chance to test the waters. Hope to see you all there.

RSVP with Beth Proffitt at bproffitt@caslab.com or 602-437-0330.

December Meeting Summary

At the December dinner meeting, new chapter board member, Jolene Tallsalt Robertson, of the water resources department of the Navajo Nation talked about the great strides she and her limited team have been making in gathering and organizing watershed and well data for the Navajo Nation. Jolene described the snowfall, rain, and stream gauges that are in place, the electronic database she and her team have been compiling, and her current projects to incorporate archived information into the database. Although she is working with a limited team and resources, significant progress has been made in a short amount of time.

The Phoenix Chapter would like to thank Jolene for her presentation. We look forward to working with Jolene in 2009 and hearing more about progress at the Navajo Nation in the months ahead.

2009 AHS Annual Symposium Sponsors Sought

The 2009 Symposium, "Managing Hydrologic Extremes", will be held at The Westin Kierland Resort & Spa August 30 through September 2,, 2009 in Scottsdale. The event will be a joint symposium with the 2009 national conference of the American Institute of Hydrology (AIH). Thanks to our volunteers we already have eight pledged sponsors and a couple strong leads in the wings! Our thanks to:

- Freeport McMoRan,
- ACS,
- Clear Creek Associates,
- Columbia Analytical Services,
- EEC,
- E.L. Montgomery & Associates
- Golder & Associates
- & Southwest Hydrology.

We look forward to helping you help us promote your firms and the 2009 Symposium. Take a look at the exhibitor hall setup below. See where you would like to set up your both and market new clients in Scottsdale. Reserve your space now and let everyone know you are supporting another outstanding AHS event.

Please contact Mike Hulst, EEC, at 602-248-7702 or mhulst@eecphx.com or Keith Ross, Hydro Geo Chem, at 480-421-1501 or keithr@hgcinc.com and ask for a sponsorship package.

More information is also available at our website, www.azhydrosoc.org or www.hydrosymposium.org . Check it out! I think you 'll be impressed.

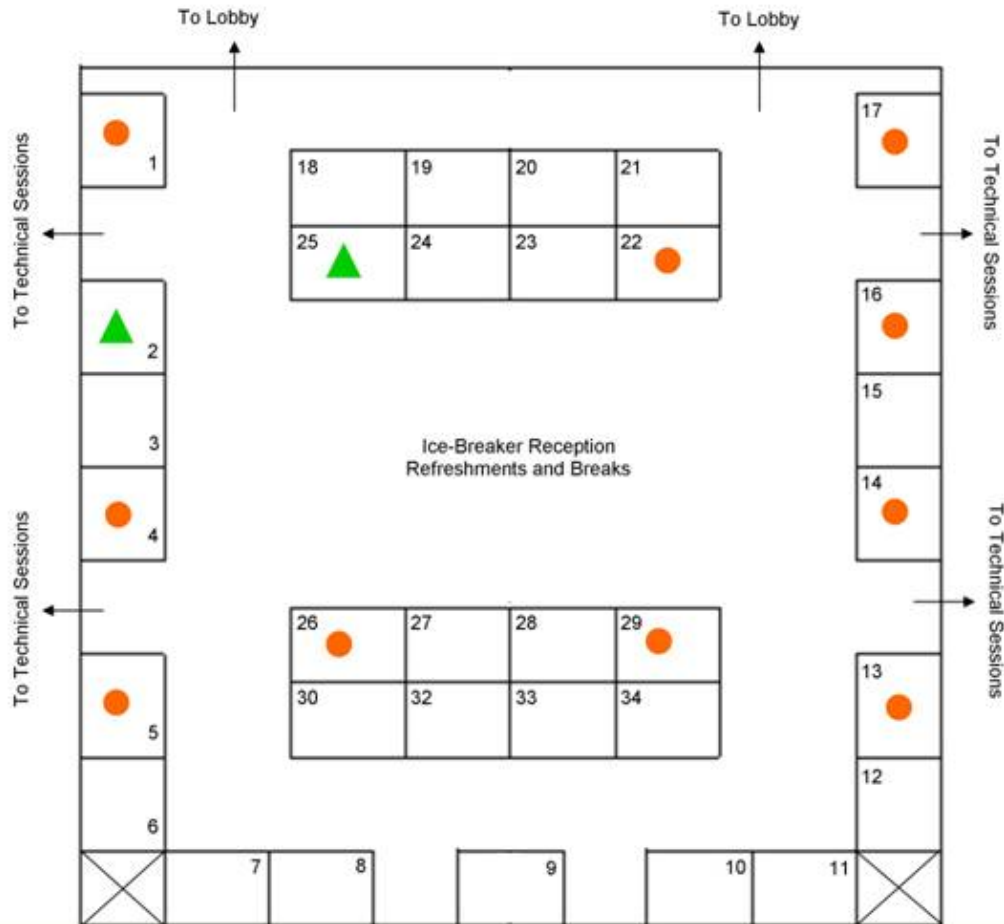
2009 Annual Water Symposium
MANAGING HYDROLOGIC EXTREMES

August 30 - September 2, 2009
 Westin Kierland Resort & Spa
 Scottsdale, Arizona

Jointly hosted by:
 Arizona Hydrological Society
 American Institute of Hydrology

www.hydrosymposium.org

TRADEFLOOR LAYOUT



LEGEND

● = Premium Exhibit Space ▲ = Solid Booth

December 2008 | Map pending Fire Marshall Approval | A6 Consultants, LLC

Exhibitors:

- | | | | |
|----------------------------|---------------|-------------------------|---------------|
| 1. Available | 11. Available | 21. Available | 31. Available |
| 2. Montgomery & Associates | 12. Available | 22. Available | 32. Available |
| 3. Available | 13. Available | 23. Available | 33. Available |
| 4. Available | 14. Available | 24. Available | 34. Available |
| 5. Available | 15. Available | 25. Southwest Hydrology | |
| 6. Available | 16. Available | 26. Available | |
| 7. Available | 17. Available | 27. Available | |
| 8. Available | 18. Available | 28. Available | |
| 9. Available | 19. Available | 29. Available | |
| 10. Available | 20. Available | 30. Available | |

Planning for 2009 Symposium continues, Jan. 21st at Hydro Geo Chem

Planning for the 2009 AHS Symposium continues and we will be meeting regularly to hammer out details of program, speakers, sponsorship, marketing, proceedings, workshops, field trips, etc. The next planning meeting is scheduled for Wednesday, Jan. 21st at 5 PM at the offices of HydroGeo Chem (6370 E. Thomas Rd, Ste 200

Scottsdale, AZ). If you are interested in helping with the planning process or just listening in, please contact Keith Ross at keithr@hgcinc.com or 480-421-1501, Lee-Anna Walker at LeeAnna.Walker@arcadis-us.com, Christie O 'Day at coday@acstempe.com or 480-894-5477 or Ted Lehman at ted@jefuller.com or 480-222-5709. We 'd love to have you and we can really use your help.

Herman Bouwer Internship Program

This year marks the 10th year the Phoenix Chapter will solicit applications for the Herman Bouwer Internship Program! The Herman Bouwer Intern Scholarship gives students enrolled in a hydrology-related discipline at any Arizona college or university the opportunity to gain practical experience in the multidisciplinary field of hydrology and water resources. This scholarship acknowledges the extensive contributions of Dr. Bouwer to the science of hydrology and to the AHS.

Recipients are chosen after a rigorous selection process and serve their internship with employers in the Phoenix area. The Intern is required to complete 320 hours of service with three organizations of his or her choice in government, private industry, and environmental, and water-resources consulting. The employer organizations provide a meaningful training experience that will better prepare the intern for employment in their chosen career goals. A \$4,800 monetary scholarship is included as part of the award.

The application deadline is March 16, 2009. Check out the [AHS website](#) for if you would like more information about the Herman Bouwer Intern Scholarship Program and to download an application form.

Event Calendar

- Thursday, January 15th - Annual Kickoff Meeting - Sonoran Brewhouse, 3rd Street & Camelback, 5:30 pm.
- January 26th - Call for Abstracts, [2009 Annual Symposium](#)
- Tuesday, January 27th - Nick Melcher, Lunch Hour Presentation "Communicating Science to Policy-makers", in collaboration with the University of Arizona, Cooperative Extension Service, at their facility, 4341 East Broadway, Phoenix, Arizona, 85010. Please RSVP Ted Lehman, JE Fuller/ Hydrology & Geomorphology, Inc, 8400 S. Kyrene Road, Suite 201, Tempe, AZ 85284, 480-222-5709, ted@jefuller.com
- February 10th - Keith Ross, Hydro Geo Chem, Using Passive Soil Gas Surveys for Preliminary Source Identification (The Bull 's-eye Approach)
- March 10th - Dr. Abe Springer, NAU, & Steve Flora, ADWR, Aridland Springs of Western North America: Diverse yet Abused
- March 16th - Application deadline for Herman Bouwer Internship Program
- March 21-24 - Arizona Science & Engineering Fair (AzSEF), Phoenix Convention Center
- April dinner meeting - Maybe you?
- April 27 - 30 - Parameter Estimation (PEST) Workshop, ADWR
- Aug. 30- Sept. 2, 2009 - Managing Hydrologic Extremes, Joint Symposium of AHS & AIH, Westin Kierland Resort & Spa, Scottsdale, AZ

Tucson Chapter

There Was No December Tucson Chapter General Membership Meeting

Tucson Chapter Officer's Meeting

The Tucson Chapter Officer met at Yoshimatsu Restaurant in Tucson on Dec 9. The 2008 officers were reconfirmed for 2009 with the new addition of Mr. Gosch, U of A, as Chapter Treasurer. General plans for monthly meetings for 2009 were discussed and preliminary plans were made for a chapter-subsidize dinner presentation this March. Dr. Robert Webb, USGS, has agreed to make a presentation on his new book, "The Ribbon of Green - Change in Riparian Vegetation in the Southwestern United States."

Tucson Chapter, January Meeting Announcement

Date: Tuesday, January 13th 2008, 6:00 pm

Location: Offices of Errol L. Montgomery and Associates, Inc
1550 E Prince Rd ,Tucson, AZ 85719

Title: Use of Models to Map Potential Capture of Surface Water by Ground-Water Withdrawals

Speaker: Stan Leake, USGS, Tucson AZ

Abstract: In 1940, C.V. Theis pointed out that all ground water pumped is balanced by removal of water somewhere, initially from storage in the aquifer and later from capture in the form of increase in recharge and decrease in discharge. Capture that results in a loss of water in streams, rivers, and wetlands now is a concern throughout the United States. Hydrologists commonly use analytical and numerical approaches to study temporal variations in sources of water to wells for select points of interest. Much can be learned about coupled surface-/ground-water systems, however, by looking at the spatial distribution of theoretical capture for a select time of interest. Development of maps of capture requires 1) a reasonably well-constructed transient model of an aquifer with head-dependent boundaries representing surface-water features or evapotranspiration; and 2) an automated procedure to run the model repeatedly and extract results, each time with a well in a different location. This talk addresses procedures and considerations for mapping capture, as well as results from case studies in Arizona, Nevada, Oregon, and Michigan.

This is a highly requested presentation that Stan Leake has made for many National forums. ♦ We are fortunate that Stan, as a long-time member of the Tucson Chapter of AHS, is able to make this presentation in January. Food and drinks will be served at 6:00 pm, and the talk will begin at 6:30 pm. We hope to see you all there!

2010 Arizona Hydrological Society Symposium

The Tucson Chapter will host the 2010 AHS annual Fall symposium. Tucson Chapter members that are available to assist in planning and organizing this symposium should contact Jeff Gawad at 520 419 4547 or Nick Melcher at 520 419 4547 or by email to this newsletter.

Flagstaff Chapter

Flagstaff Chapter News

The Flagstaff Chapter held elections in December and has a new set of officers.

- o President - Brad Hill, Water Resource Manager, City of Flagstaff
- o Vice President - Paul Whitefield, Resource Specialist, National Park Service
- o Treasurer - Dana Downs-Heimz, Hydrologist, CH2M Hill
- o Secretary - Margot Truini, Hydrologist, U.S. Geological Survey

Our monthly meetings will be held every second Wednesday of the month at 6 pm at the Weatherford Mezzanine. January 14th is our first Chapter meeting for calendar year 2009.

In Memoriam.

Nat Nutungla, Hopi Water Resources Director



Hopi Water Resource Director Nat A. Nutungla passed away on Veterans Day 2008. Many of us in the hydrologic community worked with Nat and will miss him greatly. I remember my first meeting with Nat back in 1996 when I was helping out on the Black Mesa Monitoring Program. Nat was wonderful and gracious, making me feel like an important part of the community right away. From then on I always looked forward to greeting Nat and receive his gentle smile.

Below is a brief memoir written by Sharon Masek Lopez, Acting Director for the Hopi Water Resources.

"Nat was a dedicated professional in the Hopi Tribal government. He began his career with the Hopi Tribe in 1977 working as the Natural Resources Planner until we went to graduate school. He returned in 1984 and worked as a Mining and Reclamation Enforcement Officer until 1987. He then served as the Office of Hopi Lands Administrator. In 1990 Nat became Director of the Water Resources Program and remained in that position for the past 18 years.

Nat lead the way for significant improvements in water supply for the Hopi Villages through collaboration with many federal agencies including the U.S. Environmental Protection Agency, Bureau of Indian Affairs, Bureau of Reclamation, Indian Health Services and U.S. Geological Survey. He maintained long-term, productive working relationships with consulting firms who helped achieve the Tribe 's objectives including Daniel B. Stephens & Associates and Pinnacle Mapping Technologies as well as collaboration with Northern Arizona University. Nat was instrumental in development and implementation of the Hopi Water Code to protect the quality of water. He was please to achieve tribal primacy in water quality protection this year through approval of the Hopi Water Quality Standards by the U.S. Environmental Protection Agency.

During his tenure, Nat profoundly affected the development of environmental health and water resources management policy for Native American nations throughout the United States as a member of the U.S. EPA 's Regional and National Tribal Operations Committees (RTOC and NTOC). During 2008 he also played a key role in Congressional meetings with the House Committee on Oversight and Government Reform, seeking remediation for uranium-milling-related groundwater contamination on the Hopi and Navajo Reservations.

Nat is survived by his sister Sandra Garcia (Holbrook), brothers Del Garcia (Moenkopi) and Walter Garcia (Polacca), wife Kathleen, daughters Nicole Jojola (Second Mesa), Amber Nutongla (Phoenix), Callie Nutongla (Phoenix), son Zachary Nutongla (Brooklyn, NY), granddaughter Haille (9), and grandsons Izaak (12) and Jovany (2), as well as his extended family and relatives in the Rabbit Tobacco Clan. He was preceded in death by his parents and sister Marilyn Sanchez."

Margot Truini, Hydrologist, U.S. Geological Survey, AHS, Flagstaff Chapter.

For more information about the Arizona Hydrological Society, or to view current job listings and announcements, please visit our web site at:

<http://www.azhydrosoc.org/>

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