



# WATER ENVIRONMENT ASSOCIATION OF TEXAS

Preserving & Enhancing the Water Environment of Texas

Central Texas Section

May 2008

Central Texas WEAT's May Meeting Presents

**CHRIS L. SCHULTZ, PE, & RICK V. KLAR, P.G.**

Tuesday, May 20, 2008 at 6:00 pm

Joe C. Thompson Center, University of Texas, Austin

## ELIMINATING GEOTECHNICAL UNCERTAINTIES THROUGH THE USE OF GEOPHYSICS IN WATER AND WASTEWATER PIPELINE PROJECTS

Characterization of subsurface soil and rock conditions is an integral part of most geotechnical engineering projects, including those that support the design and construction of water/wastewater pipelines. Traditional approaches to subsurface field investigations have often been inadequate, relying upon the placement of exploratory borings or test trenches to obtain information on the natural setting. There are numerous pitfalls inherent to this discrete sampling approach that can result in an incomplete or erroneous understanding of subsurface conditions. The accuracy and effectiveness of such an approach is greatly dependent upon the assumption that subsurface conditions are uniform, and that regional trends are consistent throughout the local setting. Much to the chagrin of project engineers and geologists tasked with site characterization activities, these assumptions are frequently invalidated during construction, resulting in delays and cost overruns.

Surface geophysical surveys typically involve the application of electrical earth resistivity survey (EERS), electromagnetic (EM), ground-penetrating radar (GPR), and/or ground magnetic survey techniques to meet site characterization objectives. In recent years, surface geophysical surveys have been successfully utilized to evaluate and resolve a wide range of geologic and engineering concerns that arise with regard to linear construction projects. These methods generally involve surveys conducted at the ground surface to identify features of interest in the subsurface, either naturally-occurring or manmade. Geophysical surveys can provide for rapid, accurate, and cost-effective characterization of subsurface environments.

This presentation will highlight the use of geophysical technology to help better manage water/wastewater pipeline projects. Specifically, the presentation will discuss benefits associated with the use of surface geophysical surveys in support of geotechnical engineering evaluations and some supporting case studies.

**Chris L. Schultz P.E.**, serves as Senior Vice President, and Principal-in-Charge of Raba-Kistner's Austin office. Mr. Schultz has more than 18 years experience, in the field of geotechnical engineering. Mr. Schultz has worked on more than 1,000 geotechnical engineering projects throughout this professional career for both public and private sector clients across the State of Texas. **Rick V. Klar, PG**, serves as the corporate discipline leader for Geosciences at Raba-Kistner. Mr. Klar has more than 16 years experience in geologic and hydrogeologic investigations.

### Meeting Information

RSVP by contacting Susan Kelly by Thursday, May 16, 2008

Call (512) 569-9022 or Email: [central@weat.org](mailto:central@weat.org)

Meeting Cost:	Members and Guests	\$20.00
	Students	\$5.00

Meeting Location: Joe C. Thompson Center, University of Texas  
2405 Robert Dedman Drive

Located on the southwest corner of Dean Keeton and Red River.

#### Please Note:

The Joe C. Thompson Conference Center (TCC) is currently under construction. Access through the south lobby entrance, which faces the LBJ Library and Museum is no longer available. Please access the facility from the north lobby doors or the TCC dining room. There are two sidewalks which lead directly from the TCC parking lot 40, located on Red River and Dean Keeton, to our north lobby entrances.

WEAT Meeting Attendees  
Prepay with PayPal

Pre-pay for each meeting by credit card online at:

[www.weat.org/central](http://www.weat.org/central)

Click on "Calendar" (on left side), under  
REGULAR MEETINGS, click on "pay in advance  
by credit card" link. OR - go directly to:

[www.org/central/paypal.htm](http://www.org/central/paypal.htm)



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## Texas Water 2008, Central Texas Section Shines

*Our section was well represented this year at the Texas Water Awards Ceremony, with the following WEF and WEAT award winners:*

- ✓ Raj Bhattarai (Austin Water Utility) – WEF Outstanding Service Award
- ✓ Richard Eason (Lakeway MUD) – WEF Arthur Sidney Bedell Award
- ✓ Orren West (Austin Water Utility) – WEF William D. Hatfield Award
- ✓ Rebecca Cobos (Austin Water Utility) – WEAT Presidential Award
- ✓ Louis Herrin, III (TCEQ) – WEAT Winfield S. Mahlie Award
- ✓ Lynne Moss (CDM) – WEAT Ronald B. Sieger Biosolids Management Award



**Raj Bhattarai City of Austin  
Outstanding Service Award**



**Richard Eason Lakeway MUD  
Arthur Sidney Bedell Award**

Additionally, the Presidential Award was given to the **Water Quality Division** of the **Texas Commission on Environmental Quality (TCEQ)** in recognition of its untiring effort towards promoting environmental stewardship and protecting water quality in Texas. David Briggs and Richard Eason also received Service Awards for their state-level roles in WEAT. The Austin Dillo Xpress was awarded a trophy for its 5th place finish in the Ops Challenge. And a new Ops Challenge award - the Competitive Spirit Award – was created this year in memory of the late David Barber, a long time member of the Dillo Xpress, and was presented to Carl Kruger of the San Antonio Power SAWS by David's widow Judy Barber.



**Orren West , Austin Water  
William D. Hatfield Award**



**Louis Herrin, III, TCEQ  
Winfield S. Mahlie Award**



**L'Oreal Stepney  
WEAT Presidential Award  
Water Quality Division of the TCEQ**



**Lynne Moss, CDM  
Ronald B. Biosolids Management Award**



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## COMING SOON.....SCHOLARSHIP ASSISTANCE



Is college breaking the bank? The Central Texas Section of WEAT is here to help. We have recently created a scholarship assistance program for WEAT-CTS members and/or their children and spouses. The scholarship assistance program will provide a \$500 award for two students who attend either a 4-year college or university with accredited degree programs (preferred) or a junior college. Preference will be given to students who are interested in pursuing a career related to water quality, who have outstanding academic records, and who are actively involved in extracurricular activities. Scholarship applications will be available at the May WEAT meeting as well as on the WEAT-CTS website <http://www.weat.org/central/index.htm> and are due in August.

## WEAT/TAWWA SUMMER SOCIAL STAY TUNED!!!



**Keep a lookout for news on our WEAT/TAWWA Summer Social  
Scheduled for July, 2008**

## CENTRAL TEXAS SECTION YOUNG PROFESSIONALS



The Young Professionals held a Happy Hour on Thursday, April 10th at Hula Hut. A number of YP's turned out to enjoy one of the nicest evenings of the year at this scenic location. Many thanks to Diamond Fiberglass for sponsoring the event. WEAT and AWWA have decided to have another happy hour on May 15th in conjunction with the University of Texas. Announcement and details are forthcoming. And if you would like to be added to the announcement list, please email Ryan Bell at [rbell@kfriese.com](mailto:rbell@kfriese.com)

**Next YP Happy Hour is Scheduled for May 15<sup>th</sup>!!!**

## NOMINATIONS FOR 2008-2009 WEAT OFFICERS

It's that time again. During the May meeting, the Central Texas Section of WEAT will vote on a slate of new officers for 2008-2009. At this time, we are accepting nominations from members interested in an officer position. There will be a number of great committee chair and officer positions available. If you would like to become more active in WEAT and serve the local chapter, please contact Brad Castleberry at:

[bcastleberry@lglawfirm.com](mailto:bcastleberry@lglawfirm.com)

### Central Texas Section Officers are listed below.

- President - Brad Castleberry, 322-5856, [bcastleberry@lglawfirm.com](mailto:bcastleberry@lglawfirm.com)
- President-Elect – Heather Harris, 453-2468, [Heather.Harris@ch2m.com](mailto:Heather.Harris@ch2m.com)
- Vice-President – Kelly Payne, 473-3251, [Kelly.Payne@lcra.org](mailto:Kelly.Payne@lcra.org)
- Secretary – Susan Kelly, 569-9022, [skelly@LNVinc.com](mailto:skelly@LNVinc.com)
- Treasurer - Darren Strozewski, 912-5170, [dstrozewski@ge-walker.com](mailto:dstrozewski@ge-walker.com)
- Section Rep. - Lynne Moss, 346-1100, [mossilh@cdm.com](mailto:mossilh@cdm.com)
- Past President - Karol Menhard, 974-3373, [KMenhard@sbcglobal.net](mailto:KMenhard@sbcglobal.net)

## UPCOMING MEETINGS AND EVENTS – MARK YOUR CALENDAR

May 18-21, 2008  
Collection Systems 2008  
Pittsburgh, PA  
WEF

June 22-18, 2008  
Sustainability 2008  
National Harbor, MD  
WEF

August 11-12, 2008  
5th Annual EPA Region 6  
CMOM Workshop  
Austin, TX  
EPA, TCEQ, WEAT &  
City of Austin

October 18-22, 2008  
WEFTEC 2008  
Chicago. IL  
WEF

## WITH SPECIAL THANKS TO OUR MEETING SPONSORS



American Cast Iron Pipe Company, also known as ACIPCO, is located in Birmingham, Alabama on a 2000-acre site, with over 60 acres of plant under roof. ACIPCO is the largest individual iron pipe casting plant in the world and has approximately 3000 employees nationwide. ACIPCO also has manufacturing facilities located in Columbia, South Carolina (Spiral Weld Steel Pipe), Beaumont, Texas (valves and hydrants) and St. Paul, Minnesota (valves and hydrants). Divisions include American Ductile Iron Pipe, American SpiralWeld Pipe, American Flow Control, American Steel Pipe and American Centrifugal.

Daily Production is more than 2000 tons of all diversified products as follows:

- ✓ 4"-64" diameter centrifugally cast ductile iron pipe.
- ✓ 4"-64" diameter ductile iron fittings.
- ✓ 3"-16" diameter check valves, 2"-48" diameter resilient wedge valves, tapping sleeves, indicator posts, and fire hydrants.
- ✓ 4"-55" diameter centrifugally cast steel tubes, static castings and fabricated assemblies.
- ✓ 10 3/4"-24" diameter electric resistance weld steel pipe.
- ✓ Spiral-welded steel pipe through 12 feet in diameter.

ACIPCO enjoys a reputation for its quality products and business integrity, and is a leader in new developments in the marketplaces it serves. The Company is an equal opportunity employer and has a reputation for good employee relations and participation. The local Territory Manager is Ronny Huffstickler who lives in Austin - 512-445-5631.



Founded in 1968, **Raba-Kistner** is recognized as one of the Southwest's largest consulting firms offering our engineering specialties. **Raba-Kistner** provides professional and technical project management and oversight services which include construction materials engineering, testing, and observation; environmental consulting and engineering;

geotechnical engineering; facilities engineering and roofing/waterproofing consulting; and pavement consulting. Our 40 years of continuous service by the same executive management substantiates that we have been, and will continue to be, available to meet our clients' objectives in the future.

Headquartered in San Antonio, Texas, **Raba-Kistner** has additional offices in Austin, Brownsville, Dallas, El Paso, Houston, and McAllen, Texas and México. Clients benefit from ready access to project professionals. Our multi-disciplined team consists of civil, environmental, geotechnical, materials, and facilities engineers; architects; environmental geologists; scientists; archaeologists; technicians; and support personnel. More than 75% of our team holds licensure or certifications in their areas of expertise. Furthermore, **Raba-Kistner's** Geotechnical and Construction Materials Testing staff and laboratories are among the largest in the State.

## WATER IS LIFE AND INFRASTRUCTURE MAKES IT HAPPEN – HOW YOU CAN HELP!

Water Is Life, and Infrastructure Makes It Happen™ is an education and outreach program dedicated to helping communities envision, build, maintain and improve life-sustaining water and wastewater systems. It aims to inform the general public, ratepayers, opinion leaders and elected officials about:



- ✓ The value of water in sustaining and enhancing life.
- ✓ The role of water infrastructure in delivering clean, safe water to our homes and businesses.
- ✓ The role of wastewater infrastructure in cleaning water and safely returning it to the environment to be used again.
- ✓ Water and wastewater infrastructure as a valuable community asset and the current backlog of water infrastructure investment needs.
- ✓ Join the coordinated effort to raise awareness about water and wastewater infrastructure. Work together with water and wastewater professionals, business leaders, public and environmental health professionals, utilities and other leaders in your state, region or community.

**Want to learn more? Ready to sign-up?**

Contact WEF Senior Manager Lorraine Loken at [lloken@wef.org](mailto:lloken@wef.org) or call 703-684-2487