



TEXAS AQUIFER CONFERENCE



American Ground Water Trust Annual Texas Groundwater Conference

“Everything aquifers and groundwater management”

Omni Austin Hotel at Southpark, 4140 Governor's Row, Austin, TX 78744

Wednesday June 6 & Thursday June 7, 2018



Co-Sponsored by:
Texas Water Development Board



30+ diverse and interesting presentations:

LEGAL, POLICY, MANAGEMENT, SCIENTIFIC, ENGINEERING AND TECHNICAL ISSUES

AQUIFER STORAGE RECOVERY PROJECTS – DRIED-UP SPRINGS – GEOPHYSICS – CASES & COURT DECISIONS – WEST TEXAS HORIZONTAL WELL – GLASS BEADS FOR WELLS – HYDRAULIC FRACTURE IMPACT REPORT – CITY AS A WATER SOURCE - SUBSIDENCE RISK – DRONES FOR GROUNDWATER – WELL ISOLATION ZONES – USING BRACKISH GROUNDWATER – TWDB GROUNDWATER PRIORITIES – HIGH PLAINS AVOIDABLE CONTAMINATION – WELLS FOR STORMWATER MANAGEMENT – WELL DATA NETWORKS – AQUIFER RECHARGE PILOT TESTING – PERMIAN BASIN - TEXAS WATER QUALITY TRENDS – GROUNDWATER AND THE 85TH LEGISLATIVE SESSION ++

Continuing Education

The AGWT will issue Certificates of Attendance:

Approved by TX Board of Professional Geoscientists – 13 CE hours

Approved by State Bar of TX – 1.5 CLE hours

Approved by TX Dept. of Licensing and Regulation for Water Well Drillers & Pump Installers – Course #18674, 14 CE hours

Approved by TX Commission on Environmental Quality for Water Operators – 13 CE hours

The objective of American Ground Water Trust conference programs is to showcase topical and/or controversial groundwater issues and to facilitate information sharing among landowners, groundwater end-users, regulators, management agencies, scientists, engineers, lawyers and citizens who have economic or environmental interests in water resources.

Event Sponsors: (Sign up at www.agwt.org/events)



Exhibitors: Join our list and sign up at www.agwt.org/events

- Collier Consulting, Inc.
- Daniel B. Stephens & Associates, Inc.
- Directed Technologies Drilling
- Hydro Resources
- OTT Hydromet Group
- Parkhill, Smith & Cooper, Inc.
- WellIntel, Inc.

AGWT CORPORATE SUPPORT (Patron level and above)



7:30 – 8:30 REGISTRATION Wednesday June 6

8:30 – 8:40 INTRODUCTION

Principal Themes of the Conference

Sponsor & Exhibitor Introductions

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH



8:40 – 9:10 Keynote Presentation:

ANALYSIS OF THE HYDRAULIC FRACTURING AND WATER QUALITY CONTROVERSY IN PAVILLION, WY: APPLYING THE LESSONS LEARNED TO OIL & GAS DEVELOPMENT IN TEXAS

Daniel B. Stephens, PhD, PHg, PG, Principal Hydrologist, Daniel B. Stephens & Associates, Albuquerque, NM

Dr. Stephens is DBS&A's founder and principal hydrologist. He has more than forty years of experience in consulting, research, and academia, and is recognized internationally as an authority on vadose zone and groundwater hydrology. Throughout his career he has been called upon to provide technical support in hydrogeology on projects of national significance. As a litigation expert, he has provided testimony in more than 70 depositions and trials in the field of hydrology, involving characterization of the vadose zone and site hydrogeology, numerical modeling, environmental forensic investigations, and expert testimony for dozens of cases involving contamination of soil and groundwater, many of which involved allocation of remediation costs among potentially responsible parties.

9:10 – 10:25 SESSION 1

UPDATE ON TEXAS WATER DEVELOPMENT BOARD ASR DEMONSTRATION PROJECTS: PROGRESS AND RESULTS (Corpus Christi, Victoria, and New Braunfels/Edwards Aquifer Authority)

Moderator: Matt Webb, Hydrologist, Texas Water Development Board, Austin, TX

Presenters:

- Lynn Short, President, LSPS Solutions, LLC, Victoria, TX
- Paul Bertetti, Research Manager, Edwards Aquifer Authority, San Antonio, TX
- Fred Blumberg, Program Manager, Arcadis, Inc., Austin, TX
- Larijai Francis, PhD, Administrator, Corpus Christi ASR Conservation District, Corpus Christi, TX
- Kristi Shaw, Program Manager, HDR Inc., Austin, TX

10:25 – 10:45 BREAK

10:45 – 12:30 SESSION 2

MONEY IN → WATER OUT - GETTING THE BEST RETURN ON INVESTMENT FOR WATER WELL INSTALLATIONS

Moderator: Fred Rothauge, Business Development Manager, Hydro Resources, Fort Lupton, CO

Presenters:

- SITING, DESIGN AND CONSTRUCTION OF A HORIZONTAL WATER WELL IN WEST TEXAS
James Beach, PG, Vice President and Senior Supervising Hydrogeologist, WSP, Austin, TX
- THE COST/BENEFIT OF USING GLASS BEADS FOR FILTER PACK IN WATER SUPPLY WELLS
Gary Gin, RG, Vice President of AZ Operations, Leonard Rice Engineers Inc., Phoenix, AZ
- SELECTION OF WELL SCREEN AND CASING TO OPTIMIZE WELL YIELDS
Kevin McGillicuddy, PG, Chief Hydrogeologist, Roscoe Moss Company, Los Angeles, CA
- MAINTAINING AN EFFICIENT WATER WELL SYSTEM
Greg Hebert, Business Development Manager, Water Resources, Layne, Rayne, LA

12:30 – 1:30 LUNCH (provided)

1:30 – 3:00 SESSION 3

GEOPHYSICS FOR GROUNDWATER RESOURCES IN TEXAS

Moderator: Kevin McGinnis, President, Cotey Chemical, Lubbock, TX

Presenters:

- SEISMIC GEOMORPHOLOGY FOR DEEP AQUIFERS
John Jansen PG, PGp, PhD, Senior Geophysicist/Hydrogeologist, Collier Consulting, Stephenville, TX
(Co-author recognition: Finn Michelsen, P.G., Collier Consulting)
- GEOPHYSICS FOR MAPPING AQUIFERS AND SUBSIDENCE RISK IN TEXAS
Doug Laymon, PG, Geophysical Services Manager, Collier Consulting, Stephenville, TX
(Co-author recognition: Finn Michelsen, P.G. Collier Consulting)
- DRONES APPLIED TO GROUNDWATER RESOURCE EXPLORATION AND ENVIRONMENTAL MANAGEMENT
Ron Bell, President, International Geophysics, Inc., Denver, CO
(Co-author recognition: Rene Perez, PG, Earth Forensics Inc. and Rich Laton, PG, PhD, Earth Forensics, Inc., North Tustin, CA)

3:00 – 3:15 BREAK

**3:15 – 5:15 SESSION 4:
YES, GROUNDWATER QUANTITY IS IMPORTANT BUT WHAT ABOUT THE QUALITY?**

Moderator: Stephanie Moore, PG, Senior Hydrologist, Daniel B. Stephens & Associates, Austin, TX

Presenters:

WATER QUALITY STATUS IN TEXAS - NATIONAL WATER-QUALITY ASSESSMENT PROGRAM RESULTS IN TX

Patricia Ging, Hydrologist, Texas Water Science Center, United States Geological Survey, Austin, TX

AN UNNECESSARY LOSS OF A DRINKING WATER AQUIFER: (A cautionary contamination tale - Wheeler County, Northwest Texas)

Scott Honeyfield, PE, Principal, Parkhill Smith & Cooper, Amarillo, TX

(Co-author recognition: Daniel Albus, PE, Corporate Associate, Parkhill Smith & Cooper, Lubbock, TX)

UPDATE ON BRACS (BRACKISH RESOURCES AQUIFER CHARACTERIZATION SYSTEM)

John Meyer, PG, Geologist, Texas Water Development Board, Austin, TX

WELL PROFILING TECHNOLOGY: PRECISE BRACKISH AQUIFER DELINEATION FOR DESIGN OF WELL ISOLATION ZONES

Noah Heller, PG, President, BESST, Inc., San Rafael, CA

5:15 – 6:30 RECEPTION (Cash bar)



7:30 – 8:30 REGISTRATION Thursday June 7

8:30 – 8:35 SUMMARY OF DAY ONE – INTRODUCTION TO TOPICS OF DAY TWO

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:35 – 9:00

LEGISLATIVE UPDATE ON THE 85TH LEGISLATIVE SESSION

Sarah Rountree Schlessinger, Executive Director, Texas Alliance of Groundwater Districts, Austin, TX



9:00 - 9:30 Keynote Presentation

GROUNDWATER PRIORITIES FOR THE TEXAS WATER DEVELOPMENT BOARD

John T. Dupnik, PG, Deputy Executive Administrator, Texas Water Development Board, Austin, TX

John Dupnik is a Texas licensed Professional Geoscientist and holds a Bachelor of Science degree in Environmental Science and Geology from Texas State University and a Master's degree from the Jackson School of Geosciences, University of Texas at Austin where his research focused on groundwater management in Texas. Prior to his appointment at the Texas Water Development Board John was the General Manager of the Barton Spring/Edwards Aquifer Conservation District where he was initially employed as Senior Regulatory Compliance Specialist. Before his 13 years with the District, John had nine years of experience in State government with the Texas Commission on Environmental Quality and the Texas Department of Licensing and Regulation.

**9:30 – 10:40 SESSION 5
UPDATE ON SELECTED CASES AND COURT DECISIONS IMPACTING
GROUNDWATER MANAGEMENT IN TEXAS**

Moderator: Edmond McCarthy Jr., Attorney, McCarthy & McCarthy, Austin, TX

Presenters

Russ Johnson, Attorney, McGinnis Lochridge, Austin, TX

Steve Kosub, Attorney, San Antonio Water System, San Antonio, TX

Greg Ellis, Attorney, GM Ellis Law Firm PC, League City, TX

Vanessa Puig-Williams, Executive Director and General Counsel, Trinity Edwards Springs Protection Association, Austin, TX

10:40 – 11:00 BREAK

“And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way.”

11:00 – 12:30 SESSION 5

NON-CONVENTIONAL USES FOR ASR

Moderator: Van Kelley, PG, Senior Vice President, Intera, Austin, TX

Presenters:

AQUIFER STORAGE AND RECOVERY IN AQUIFERS PRONE TO SUBSIDENCE

Van Kelley, PG, Senior Vice President, INTERA Inc., Austin, TX

(Co-author recognition: Michael Turco, General Manager, Harris-Galveston Subsidence District, Friendswood, TX)

CITY OF BRYAN ASR: PILOT TESTING THE RECHARGE OF GROUNDWATER INTO THE SIMSBORO AQUIFER

David Smith, Practice Lead, Senior Engineer, CDM Smith, West Palm Beach, FL

POTENTIAL OPPORTUNITIES FOR THE USE OF CLASS V AQUIFER STORAGE AND RECOVERY WELLS FOR STORMWATER MANAGEMENT IN TEXAS

Bill Mullican, PG, Principal, Water Resources Specialist, CDM Smith, Pflugerville, TX

12:30 – 1:40 LUNCH (provided)

1:40 – 3:40 SESSION 6

**WHERE DID THE WATER GO? CITIES AS SOURCES.
AGGRESSIVE GROUNDWATER. MEASUREMENT BEYOND THE WELLFIELD.**

Moderator: Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

Presenters:

TO FLOW OR NOT TO FLOW: THE STORY OF COMANCHE SPRINGS (AND WHAT IT MEANS TODAY)

Robert Mace, PhD, PG, Chief Water Policy Officer, Meadows Center, Texas State University, San Marcos, TX

PLANNING FOR 22ND CENTURY WATER: THE CITY AS A WATER SOURCE

Sharlene Leurig, Project Director, Meadows Center, Texas State University, San Marcos, TX

CAUSES, PROBLEMS AND "CURES" RELATED TO GROUNDWATER CORROSIVITY IN THE PERMIAN BASIN

Ken Rainwater, PhD, PE, Professor, Engineering Department, Texas Tech University, Lubbock, TX

(Co-author recognition: Ryan Kennerly, PE, Water Resources Team Leader)

NEXT GENERATION GROUNDWATER LEVEL INFORMATION SYSTEMS FOR TEXAS: EXTENDING WELL DATA NETWORKS BEYOND THE WELLFIELD TO INFORM OPERATION AND MANAGEMENT DECISIONS

Chuck Dunning, PG, PhD, Vice president Business Development, WellIntel, Milwaukee, WI

3:40 – 3:50 SO WHAT ARE THE MAIN TAKE-AWAYS FROM THIS CONFERENCE? WHAT IS ON THE HORIZON FOR TEXAS GROUNDWATER MANAGEMENT CHALLENGES AND GROUNDWATER RESEARCH?

Professor Jack Sharp, PhD, Carlton Professor of Geology, Department of Geological Sciences, Jackson School of Geosciences, University of Texas at Austin, Austin, TX

3:50 – 3:55 Drawing for door prizes: (Must be present to win)

- Bottle of best Texas wine
- Bottle of single malt Scotch whiskey
- Free registration for the 2019 Austin Groundwater Conference (or any AGWT conference)

3:55 – 4:00 Conference wrap-up, continuing education sign-out and conference adjourn

"A nation that fails to plan intelligently for the development and protection of its precious waters will be condemned to wither because of its shortsightedness" Lyndon B, Johnson



↓Scroll down for registration information↓

REGISTRATION/EXHIBIT/SPONSORSHIP PAYMENT FORM
Texas Annual Groundwater Conference, Austin, TX June 6 & June 7, 2018

	June 6 <u>and</u> 7	June 6 <u>or</u> June 7
YOU MUST CHECK ONE: →	<input type="checkbox"/>	<input type="checkbox"/> or <input type="checkbox"/>
General Registration*	<input type="checkbox"/> \$430	<input type="checkbox"/> \$235
Employees of AGWT Corporate Members*	<input type="checkbox"/> \$405	<input type="checkbox"/> \$210
Full-Time Student* (ID required at Registration)	<input type="checkbox"/> \$100	<input type="checkbox"/> \$50
Presentation ppts download (Registrant Price)	<input type="checkbox"/> \$30	
Speaker – Day of Presentation (Complimentary)	June 6 <input type="checkbox"/> \$0	June 7 <input type="checkbox"/> \$0
Speaker – Attend Additional Day	June 6 <input type="checkbox"/> \$100	June 7 <input type="checkbox"/> \$100
Exhibit Table (personal registration also required)	<input type="checkbox"/> \$300	

*Registration Includes: breaks, lunch, and day 1 reception

[Register on-line at www.agwt.org/events](http://www.agwt.org/events)

SPONSOR:

Sponsor Levels: \$3,000 \$2,000 \$ 1,000 \$ 500
 \$1,000 and above sponsors have the option of a complimentary registration or exhibit table.

Would you like a complimentary registration? YES NO
 Do you plan to exhibit? YES NO

Please call the AGWT (800) 423-7748 if you have questions, need an invoice, or if you would like to discuss providing financial assistance for this event in some other way, such as sponsoring lunch or the reception.

Registrant/Sponsor/Exhibitor Information:

Attendee Name _____
 Organization Name _____
 Attendee E-mail _____
 Position/Job Title _____
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 City _____ State _____ Zip _____ Phone _____

Payment Information:

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The American Ground Water Trust is a non-profit 501(c)(3) membership organization dedicated to providing accurate information about water resources, groundwater and wells to citizens, communities and decision makers. Contributions are tax deductible to the extent permitted by law.