



TEXAS AQUIFER CONFERENCE



American Ground Water Trust Annual Texas Groundwater Conference

“Everything aquifers and groundwater management”

Omni Austin Hotel Southpark, 4140 Governor's Row, Austin, TX 78744
Wednesday June 12 and Thursday June 13, 2019

An American Ground Water Trust program (Our 26th Texas event since 2009)
In Cooperation with the Texas Water Development Board



24+ diverse and interesting presentations:



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

SESSION TOPICS INCLUDE:

- GROUNDWATER PRIORITIES FOR THE TEXAS WATER DEVELOPMENT BOARD
- RULES AND REGULATIONS TO PROTECT TEXAS GROUNDWATER
- EDUCATION AND TRAINING FOR THE NEXT GENERATION OF TX GROUNDWATER PROFESSIONALS
- GROUNDWATER MANAGEMENT TO SUSTAIN TEXAS ECOLOGY
- LEGACY AND CURRENT CONTAMINATION CHALLENGES FOR GROUNDWATER PROTECTION
- COAL ASH DEPOSITS (COAL COMBUSTION RESIDUALS) AND WATER QUALITY (Extended session)
- PRIORITIES AND CHALLENGES FOR GROUNDWATER IN TEXAS (Invited keynote presentation)
- UPDATE ON LEGAL AND LEGISLATIVE ISSUES FOR TEXAS GROUNDWATER MANAGEMENT
- GROUNDWATER AND SURFACE WATER INTERACTION

Continuing Education

The AGWT will issue Certificates of Attendance:

- Approved by State Bar of TX – Course #174047263, 4 CLE Hours
- Approved by TDRL for Water Well Drillers & Pump Installers – Course #20453; 16 CE Hours
- Approved by TCEQ for Water Operators – Course Code #0548; 14 CE Hours
- Approved by TX Board of Professional Geoscientists – 13.50 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:

(to join them, check sponsorship and exhibitor opportunities at www.agwt.org/events)



7:30 – 8:30 REGISTRATION Wednesday June 12 COFFEE & PASTRIES (Sponsor opportunity)

8:30 – 8:40 PRINCIPAL THEMES OF THE CONFERENCE, SPONSOR & EXHIBITOR INTRODUCTIONS
Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:40 – 9:10 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 with the Texas Commission on Environmental Quality and the Texas Department of Licensing and Regulation.



SESSION 1 RULES AND REGULATIONS TO PROTECT TEXAS GROUNDWATER
Moderator: Stephanie J. Moore, PG, Senior Hydrologist, Daniel B. Stephens & Associates, Inc., Austin, TX

9:10 – 9:40
TEXAS AQUIFER STORAGE & RECOVERY - RULES AND REGULATIONS FOR ASR WELLS
(The TCEQ has jurisdiction for regulating Aquifer Storage & Recovery injection wells. The rules require TCEQ to make a determination on the volume of water that can be recovered)
Lorrie Council, PG, Manager, UIC Permits Section,
Texas Commission on Environmental Quality, Austin, TX



9:40 – 10:10
HOW THE ABANDONED WELL PROGRAM PROTECTS AQUIFER WATER QUALITY
(Wells that are not physically or legally capable of making beneficial withdrawals are considered abandoned. There are 6,000+ Edwards Aquifer wells, over 2,400 plugged wells and 300 confirmed abandoned wells)
Roland Ruiz, General Manager, Edwards Aquifer Authority, San Antonio, TX

10:10 – 10:40
KEEPING GROUNDWATER IN ITS PLACE: PREVENTING COMINGLING THROUGH APPLICATION OF TDLR RULES
(Comingling - The mixing, mingling, blending or combining through the borehole casing annulus or the filter pack of waters that differ in chemical quality, which causes quality degradation of any aquifer or zone)
Adam Foster, Hydrologist, Water Well Program, Texas Department of Licensing and Regulation, Austin, TX

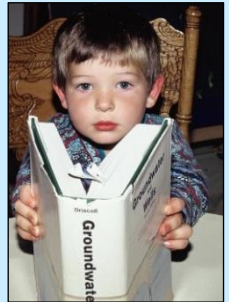
10:40 – 11:00 BREAK

SESSION 2 EDUCATION & TRAINING FOR THE NEXT GENERATION OF GROUNDWATER PROFESSIONALS
Moderator: Kevin McGinnis, President, Cotey Chemical, Lubbock, TX



11:00 – 11:30
REMIEDIATION TO RESEARCH: TRAINING FUTURE HYDROGEOLOGISTS
(Hands-on hydrogeology field experience for undergraduates with Geoprobe drilling equipment)
Wayne Hamilton, PE, PG, Research Faculty, Department of Geology, Baylor University, Waco, TX
(Co-author recognition - Joe C. Yelderman Jr., PhD, PG, Hydrogeology Professor, Baylor University)

11:30 – 12:00
WATER SECURITY FOR TEXAS: A POST-SECONDARY EDUCATION PATHWAY FOR WATER WORKFORCE READINESS
(The Texas water industry faces a looming workforce shortage as it struggles to attract new talent)
Rudolph Rosen, PhD, Director, Institute for Water Resources Science and Technology,
Texas A&M University, San Antonio, TX



12:00 – 12:30
BACKGROUND AND OPERATION OF 4-H2O, THE TEXAS 4-H WATER AMBASSADORS PROGRAM
(A program that gives Texas high school students the opportunity to learn about water law, policy, planning and emerging technologies)
David W. Smith, 4-H2O Program Coordinator, Texas A&M AgriLife Extension Service, College Station, TX

12:30 – 1:30 LUNCH (Sponsor opportunity)

SESSION 3 GROUNDWATER MANAGEMENT TO SUSTAIN ECOLOGY

Moderator: to be announced



1:30 – 2:00

GROUNDWATER FOR WHOOPING CRANES ON THE TEXAS GULF COAST

(Using groundwater to develop and maintain sources of freshwater for this endangered iconic species during droughts)

James Dodson, Water and Coastal Resources Consultant, Victoria, TX

2:00 – 2:30

GROUNDWATER SALAMANDERS OF WEST-CENTRAL TEXAS: BELLWETHERS OF AQUIFER HEALTH AND INTEGRITY

(Protecting Texas' unique groundwater salamanders will protect the integrity of critical aquifers)

Tom Devitt, Ph.D., Research Associate, Dept. of Integrative Biology and the Biodiversity Center, University of Texas at Austin



2:30 – 3:00

USGS RESEARCH AT THE GROUNDWATER-ECOLOGY INTERFACE

(Studies of groundwater flow, dependability and quality that have a focus on understanding aquatic habitat in wetlands, springs and streams)

Scott Ikard, PhD, PE, Hydrologist, USGS Texas Water Science Center, Austin, TX

3:00 – 3:15 BREAK

SESSION 4 LEGACY & CURRENT CONTAMINATION CHALLENGES FOR GROUNDWATER PROTECTION IN TEXAS

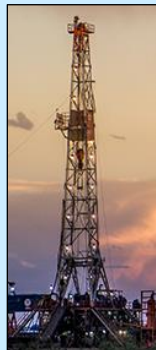
Moderator: Fred Rothauge, Business Development Manager, Hydro Resources, Fort Lupton, CO

3:15 – 3:45

PFAS: WIDE-RANGING SOURCES AND IMPACTS TO TEXAS WATER SUPPLIES

(How serious is the problem of Poly- and Perfluoroalkyl substances in groundwater. How does TX compare with other parts of the US?)

Gregory Schnaar, PhD, Principal Environmental Scientist, Daniel B. Stephens & Associates, Washington, DC



3:45 – 4:15

THE ROLE OF THE OIL AND GAS DIVISION OF THE TEXAS RAILROAD COMMISSION IN THE PROTECTION AND MANAGEMENT OF GROUNDWATER

(Oil & gas operations, particularly those involving hydraulic fracture, use large amounts of groundwater and they also create process water along with the product. How are sites selected for supply and disposal?)

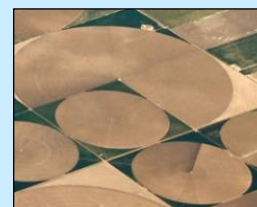
James G. Harcourt, PG, Groundwater Advisory Unit Manager, Oil and Gas Division, Railroad Commission of Texas, Austin, TX

4:15 – 4:45

NITRATE, A CHANGING INGREDIENT IN TEXAS GROUNDWATER

(Why is nitrate a concern, where does it come from – agriculture or wastewater, does it naturally degrade and what can be done about it?)

Chris Herrington, PE, Environmental Officer, City of Austin, Austin, TX



4:45 – 5:15

THE IMPACTS ON GROUNDWATER FROM MINING AND "NATURAL" OCCURRENCES OF URANIUM

(Where does uranium occur in groundwater, how serious is the problem and what is the best course of action?)

Dorina Murgulet, PhD, Director, Center for Water Supply Studies, Assoc. Prof. of Hydrogeology, Texas A&M University, Corpus Christi, TX

5:15 – 6:30 RECEPTION (Sponsor Opportunity, cash bar)



8:30 – 8:35

SUMMARY OF DAY ONE – INTRODUCTION TO TOPICS OF DAY TWO**SESSION 5 (COAL-ASH) COAL COMBUSTION RESIDUALS AND WATER QUALITY (Extended Session)**

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

8:35 – 9:15

GROUNDWATER CONTAMINATION FROM CCR IN TEXAS AND ACROSS THE U.S.
 (Statistical overview of groundwater quality data generated by the CCR rule. How serious are CCR issues in Texas? What might be the best strategy to minimize problems?)

Abel Russ, JD, Senior Attorney, Environmental Integrity Project, Washington DC

9:15 – 9:55

OVERVIEW OF CURRENT GROUNDWATER REMEDIATION OPTIONS FOR CCR UNITS
 (Many choices - how to select? Natural attenuation, In-situ and ex-situ hydraulic control, Biogeochemical injections, Slurry walls, Permeable reactive barriers etc.)

Herwig Goldenmund, PhD, Senior Scientist, Geosyntec, Kennesaw, GA



9:55 – 10:35

LEGAL ISSUES - CCR PROBLEMS - CLASS ACTION, TOXIC TORT AND REGULATORY LITIGATION:
 (Will any of these approaches help Texas deal with CCR contamination issues? Have they helped elsewhere?)

J. Michael Showalter, JD, Attorney, Partner, Schiff Hardin, Chicago, IL

10:35 – 11:00 BREAK**SESSION 5 (continued) (COAL-ASH) COAL COMBUSTION RESIDUALS AND WATER QUALITY**

11:00 – 11:40 CCR CONTAMINATION ISSUES IN TEXAS - WHAT IS THE FASTEST TRACK TO A SOLUTION?
 (Background to regulatory authority for contamination from current and legacy CCR deposit sites in TX. Which state agencies implement the “rules and regulations” for managing CCR deposit sites? Who are the major groups of potential plaintiffs and defendants in TX?)

Mary Whittle, JD, Attorney, Guerrero & Whittle, PLLC, Austin, TX

11:40 – 12:10

Keynote presentation

Senator Charles Perry: District 28, Lubbock, TX *(invited)*
 PRIORITIES AND CHALLENGES FOR WATER IN TEXAS

Charles Perry, a practicing CPA from Lubbock, was elected to the Texas Senate in 2014 after first serving two terms in the Texas House of Representatives. Senator Perry currently chairs the Senate Committee on Agriculture, Water, & Rural Affairs; co-chairs the State Water Implementation Fund for Texas (SWIFT) Advisory Committee, and was appointed by Gov. Abbott to the Southwestern States Water Commission. Perry represents the largest Senate District in the State. The district is made up of 51 counties, is over 48,000 square miles, and is larger than 19 U.S. states.

**12:10 – 1:10 LUNCH (Sponsor opportunity)****SESSION 6 UPDATE ON SELECTED CASES AND COURT DECISIONS IMPACTING GROUNDWATER MANAGEMENT IN TEXAS**

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

Topics to be discussed include:

- Update on current groundwater litigation;
- The meaning of “fair share” as it relates to property owners groundwater rights;
- Legislative Changes affecting groundwater regulation;
- Regional groundwater planning and uniformity of District rules affecting groundwater permitting and production

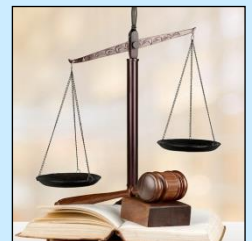
1:10 – 2:40 Presentation panel

Mark Harral, JD, Attorney, Harral & Associates, Lubbock, TX:

Stacey Reese, JD, Attorney, Stacey Reese Law PLLC, Austin, TX

Troupe Brewer, JD, Attorney, Lloyd Gosselink Rochelle & Townsend, P.C., Austin, TX

Leah Martinsson, JD, Executive Director, Texas Alliance of Groundwater Districts, Austin, TX

**2:40 – 2:50 BREAK**

SESSION 7 GROUNDWATER AND SURFACE WATER INTERACTION

Moderator: Carlos Rubinstein, Principal, RSAH₂O, LLC (former Chairman of the TWDB and former Commissioner of the TCEQ), Austin, TX

2:50 – 3:20

TEXAS AQUIFERS: GROUNDWATER INTERACTION WITH SURFACE WATER

Larry French, PG, Director, Groundwater Division, Texas Water Development Board, Austin, TX

3:20 – 3:50

SURFACE WATER-GROUNDWATER INTERACTION ISSUES IN TEXAS

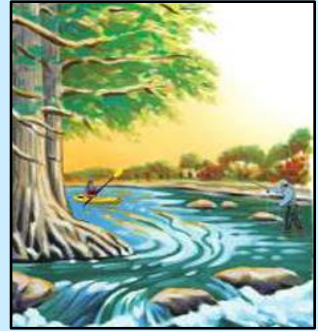
Robert Mace, PhD, PG, Chief Water Policy Officer, Meadows Center, Texas State University, San Marcos, TX

(Co-author recognition: Steve Young, PhD, Principal Geoscientist, INTERA, Inc. and Carlos Rubinstein, Principal, RSAH₂O, Austin, TX)

3:50 – 4:20

GROUNDWATER-SURFACE WATER MODELING TO GUIDE WELL-FIELD OPERATIONS: MANAGING PRODUCTION DURING DROUGHT

Jack Wittman, PhD, Principal Geoscientist, INTERA, Inc., Bloomington, IN



4:20 – 4:30

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

Hughbert Collier, PhD, PG, VP, Collier Consulting, Stevensville, TX

4:30



CONTINUING EDUCATION SIGN-OUT AND CONFERENCE ADJOURN

Drawing for door prizes: (Must be present to win)

Bottle of best Texas wine

Bottle of single malt Scotch whiskey

Free registration for the 2020 Groundwater Conference (or any AGWT conference)



(Sponsored by Parkhill, Smith & Cooper, Inc.)



AMERICAN GROUND WATER TRUST

The AGWT was formed in 1986 as a non-profit education organization with the mission of promoting interest and awareness in groundwater issues. The AGWT's conference and workshop programs and educational materials:

- ◆ Communicate the environmental and economic value of groundwater
- ◆ Showcase ground water science and technology solutions
- ◆ Increase citizen, community and decision-maker awareness
- ◆ Facilitate stakeholder participation in water resource decisions
- ◆ Promote efficient and effective groundwater management

REGISTRATION FORM

AMERICAN GROUND WATER TRUST ANNUAL TEXAS GROUNDWATER CONFERENCE

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

Wednesday June 12 and Thursday June 13, 2019

- | | |
|--|-----------------------------------|
| 2 Day Registration (General) | <input type="checkbox"/> \$450.00 |
| 2 Day AGWT Member employee | <input type="checkbox"/> \$425.00 |
| 2 Day Full-Time Students (ID Required at check-in) | <input type="checkbox"/> \$100.00 |
| 1 Day Registration (June 12) | <input type="checkbox"/> \$245.00 |
| 1 Day AGWT Member employee (June 12) | <input type="checkbox"/> \$220.00 |
| 1 Day Full-Time Students (ID Required) (June 12) | <input type="checkbox"/> \$ 50.00 |
| 1 Day Registration (June 13) | <input type="checkbox"/> \$245.00 |
| 1 Day AGWT Member employee (June 13) | <input type="checkbox"/> \$220.00 |
| 1 Day Full-Time Students (ID Required) (June 13) | <input type="checkbox"/> \$ 50.00 |
| Download of Presentations in PDF (<i>post event</i>) | <input type="checkbox"/> \$ 30.00 |
| Speaker Registration ONLY: | |
| Speaker – June 12 | <input type="checkbox"/> \$ 0.00 |
| Speaker – June 13 | <input type="checkbox"/> \$ 0.00 |
| Attend – Not speaking – June 12 | <input type="checkbox"/> \$100.00 |
| Attend – Not speaking – June 13 | <input type="checkbox"/> \$100.00 |

Total \$ _____

For sponsor and exhibit opportunities, call 800-423-7748 or download the Sponsor and Exhibit Form at www.agwt.org/events.

Payment:

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? QUESTIONS:
(800) 423-7748
9:00-4:00pm (Eastern Time)