



TEXAS GROUNDWATER 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 30 and Thursday, July 1, 2021

“GOODBYE ZOOM – HELLO IN-PERSON”

An American Ground Water Trust program (Our 28th Texas groundwater event since 2009)

24+ diverse and interesting presentations:

LEGAL, POLICY, MANAGEMENT, SCIENTIFIC, ENGINEERING AND TECHNICAL ISSUES ABOUT THE STATE’S AQUIFERS

Continuing Education

Approved by TCEQ for **TX Water Operators** – Course #0548; 13 Hours

Approved for **TX Attorneys** – Course #174123850; 4.5 MCLE Hours

Approved by TDLR for **TX Water Well Drillers/Pump Installers** – Course #24389; 15 Hours

Conference Qualifies for **TX Professional Geoscientists** CE Hours

Certificates available for all attendees upon completion of CE Form

CONFERENCE SPONSORS

Join our conference sponsors – see sponsorship opportunities at www.agwt.org/events



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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.



7:30 – 8:30 REGISTRATION

Wednesday June 30

8:30 – 5:00 Conference Presentations

8:30 – 8:45 A REVIEW OF GLOBAL WATER MANAGEMENT CHALLENGES AS A CONTEXT FOR THE CONFERENCE
Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:45 – 9:20 UPDATE ON GROUNDWATER ISSUES AND PRIORITIES FOR THE TEXAS WATER DEVELOPMENT BOARD
John Dupnik, PG, Deputy Executive Administrator, Water Science and Conservation, Texas Water Development Board, Austin, TX

9:20 – 9:55 ASCE REPORT CARD ON TEXAS INFRASTRUCTURE – RESILIENCE AT RISK. REPORT CARD OVERVIEW, WITH A FOCUS ON WATER SUPPLY AND WATER QUALITY
Mark K. Boyd, PhD, PE, CAPM, DWRE, Principal Engineer, LCA Environmental, Inc., Farmers Branch, TX, and Chair Texas Section ASCE 2021 Infrastructure Report Card committee

9:55 – 10:30 DROUGHT CHALLENGES FOR TEXAS WATER RESOURCES IN A CHANGING CLIMATE
John Nielsen-Gammon, PhD, Regents Professor, Texas State Climatologist, Director, Texas Center for Climate Studies, Texas A&M University, College Station, TX

10:30 – 10:50 BREAK

10:50 – 11:25 NEW AND OLD QUESTIONS ABOUT JOINT GROUNDWATER PLANNING (DESIRED FUTURE CONDITIONS) IN TEXAS
James Beach, PG, Principal Hydrogeologist, Advanced Groundwater Solutions, Dripping Springs, TX

11:25 – 12:00 MANAGEMENT OF THE NORTHERN SEGMENT OF THE EDWARDS BALCONES FAULT ZONE: CO-EVOLUTION OF SCIENCE AND POLICY
Dirk Aaron, General Manager, Clearwater Underground Water Conservation District, Belton, TX

12:00– 1:10 LUNCH (provided)

1:10 – 1:45 A RECAP OF THE 87TH TEXAS LEGISLATURE AND WATER
Todd H. Votteler, PhD, President, Collaborative Water Resolution LLC, Austin, TX

1:45 – 3:00 PANEL – LEGAL PERSPECTIVES ON KEY LEGAL ISSUES

- Interaction of groundwater and surface water resources, including HB 2652
- Changes in Water Code Chapter 36, including SB 152
- TWDB calculation of modeled sustainable groundwater pumping, including HB 2851

Moderator: Ed McCarthy, JD, Attorney, McCarthy & McCarthy, Austin, TX
Ty Embry, JD, Attorney, Chair of Governmental Relations Practice Group, Lloyd Gosselink, Austin, TX
Russell Johnson, JD, Partner, McGinnis Lochridge, Austin, TX
Bill Dugat, JD, Attorney, Bickerstaff, Heath, Delgado & Acosta, Austin, TX.

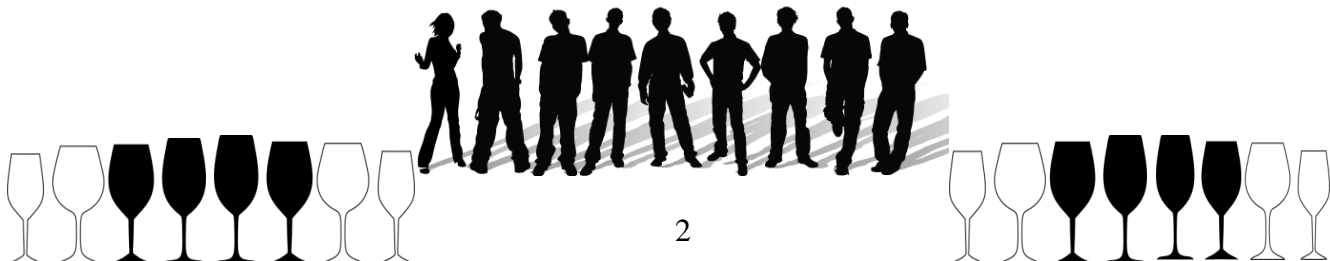
3:00 -3:15 BREAK

3:15 – 3:50 HOUSE BILL 721: STATEWIDE ASR-AR SUITABILITY SURVEY RESULTS AND NEXT STEPS
Kristi Shaw, PE, Sr. Water Resources Engineer, HDR, Austin, TX
Andrea Croskrey, PG, Geoscientist, Texas Water Development Board, Austin TX

3:50 - 4:25 EXPLORING GROUNDWATER RECOVERABILITY IN TEXAS
Justin Thompson, Bureau of Economic Geology, University of Texas, Austin, TX

4:25 – 5:00 AQUIFER RECHARGE AND TCEQ'S NEW 2020 RULES
Carol Dye, PG, UIC Permits Section Manager, Texas Commission on Environmental Quality, Austin, TX
Lorrie Council, PG, Manager, UIC Permits Section, Texas Commission on Environmental Quality, Austin, TX

5:00 – 6:30 RECEPTION (Cash bar)



7:30 – 8:30 REGISTRATION**Thursday July 1****8:30 – 8:35 SUMMARY OF DAY ONE**

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

8:35 – 9:10 ASR MODELING IN BELL COUNTY: CHOOSING THE RIGHT LEVEL OF COMPLEXITY TO MEET PROJECT NEEDS

Ross Kushnereit, Staff Hydrogeologist, INTERA, Austin, TX

Steve Young, PhD, PE, PG, Principal Geoscientist, INTERA, Austin, TX

9:10 – 9:45 MONITORING NETWORK FOR THE NEW BRAUNFELS ASR PROJECT DOWNDIP OF COMAL SPRINGS

Jennifer Adkins, PG, Hydrogeologist, Edwards Aquifer Authority, San Antonio, TX

Neil Deeds, PhD, PE, Vice President; Principal Water Resources Engineer, INTERA, Austin, TX

9:45 – 10:20 STRATEGIES TO MITIGATE ARSENIC MOBILIZATION DURING AQUIFER STORAGE AND RECOVERY

Charles Werth, PhD, Associate Chair for Environmental Engineering & Professor, University of Texas, Austin, TX

10:20 – 10:40 BREAK**10:40 – 11:15 HYDROGEOLOGY OF THE CROSS TIMBERS AQUIFER IN NORTH CENTRAL TEXAS**

T. Neil Blandford, PG, Principal Hydrologist/Senior Vice President, Daniel B. Stephens & Associates, Inc., Albuquerque, NM

11:15 – 11:50 GROUNDWATER DATA ANALYSIS AND VISUALIZATION - UNDERSTANDING AND COMMUNICATING THE STATUS OF YOUR AQUIFERS

Micaela Pedrazas, Hydrogeologist – Texas Operations, LRE Water, Round Rock, TX

KEYNOTE PRESENTATIONS

11:50 - 12:15

GEOSTATISTICAL SUBSURFACE UNCERTAINTY MODELING: METHODS TO SUPPORT GROUNDWATER MODELING

MICHAEL J. PYRCZ, PhD, P Eng, Associate Professor, Cockrell School of Engineering and the Jackson School of Geosciences, The University of Texas at Austin

12:15 – 12:30

THE CHALLENGES AND PRIORITIES OF THE HOUSE COMMITTEE ON NATURAL RESOURCES

Tracy O. King, Texas District 80, Chairman of the House Committee on Natural Resources, Austin, TX

12:30 – 1:20 LUNCH (provided)

1:20 – 1:55

RAPID MAPPING OF AQUIFERS, WATER QUALITY, AND POTENTIAL RECHARGE SITES USING A TOWED CART TIME-DOMAIN ELECTROMAGNETIC INDUCTION SYSTEM: A NEW TOOL FOR TEXAS GROUNDWATER MANAGEMENT

John Jansen, PG, PGp, PhD, Senior Geophysicist and Hydrogeologist, Collier Consulting, Stephenville, TX

1:55 - 2:30

NEW AND INNOVATIVE TECHNIQUES TO ASSESS GROUNDWATER/SURFACE-WATER INTERACTIONS

Joe C. Yelderman Jr., PhD, PG, Hydrogeology Professor, Baylor University, Waco, TX

[Co-author recognition: Stephanie S. Wong, graduate student in Geosciences at Baylor University and William A. Brewer, graduate student in Ecological, Earth, and Environmental sciences at Baylor University]

2:30 – 3:05

AN INNOVATIVE APPROACH FOR IRON AND MANGANESE REMOVAL FROM GROUNDWATER: INDUSTRIAL AND MUNICIPAL APPLICATIONS IN TEXAS

Jeffrey McCartney, Water Treatment Process Engineer, Layne, Mesa, AZ

3:05 - 3:20 BREAK

3:20 – 3:55

A REVIEW OF THE USE OF WATER-WELL PUMPS IN TEXAS AND THE BASIS FOR CHOOSING THE TYPE OF PUMP TO INSTALL

David Kill, PE, Training Consultant, Xylem Goulds Water Technology, St. Paul, MN

3:55 - 4:30

APPLICATION OF PUMPING TECHNOLOGY TO IMPROVE THE RELIABILITY AND RESILIENCY OF THE CANADIAN RIVER MUNICIPAL WATER AUTHORITY'S JOHN C. WILLIAMS WELLFIELD

Scott W. Honeyfield, PE, Principal & Civil Engineer, Parkhill, Amarillo, TX

4:30 CONFERENCE WRAP-UP - DOOR PRIZE AWARDS