

# 1.

## TEXAS STATE VITAE

*current as of August 1, 2024*

### I. BACKGROUND

**A. Name:** Robert Earl Mace

**Title:** Executive Director and Chief Water Policy Officer at The Meadows Center for Water and the Environment and Professor of Practice in the Department of Geography and Environmental Studies

### B. Educational Background

<i>Degree</i>	<i>Year</i>	<i>University</i>	<i>Major</i>	<i>Thesis/Dissertation</i>
Ph.D.	1998	The University of Texas at Austin	Hydrogeology	Dissertation
M.S.	1991	New Mexico Institute of Mining and Technology	Hydrology	Masters independent study
B.S.	1989	New Mexico Institute of Mining and Technology	Geophysics	n/a

Mace, R.E., 1998, Ground-water flow and solute transport in a fractured chalk outcrop, North-Central Texas: Austin, Texas, The University of Texas at Austin, Ph.D. dissertation, 387 p.

Mace, R.E., 1990, The effect of the fine fraction on the residual trapping of nonaqueous organic liquids in unconsolidated porous media in the saturated zone: Socorro, New Mexico, New Mexico Institute of Mining and Technology, Masters independent study, 173 p.

### C. University Experience

<i>Position</i>	<i>University</i>	<i>Dates</i>
Executive Director	The Meadows Center for Water and the Environment/ Texas State University	4/1/2020 to present
Interim Executive Director	The Meadows Center for Water and the Environment/ Texas State University	3/1/2019 to 4/1/2020
Deputy Executive Director	The Meadows Center for	6/9/2018 to 2/29/2019

Professor of Practice Chief Water Policy Officer	Water and the Environment/ Texas State University Texas State University The Meadows Center for Water and the Environment/ Texas State University	12/4/2017 to present 12/4/2017 to present
Adjunct Graduate Faculty	Texas A&M University -Corpus Christi	12/17/2018 to 2020
Adjunct Doctoral Graduate Faculty	Texas State University	9/2007 to 8/2010
Adjunct Assistant Professor	The University of Texas at Austin	11/2005 to 1/2006
Research Associate	Bureau of Economic Geology/ The University of Texas at Austin	9/1997 to 7/1999
Research Scientist Associate	Bureau of Economic Geology/ The University of Texas at Austin	2/1991 to 9/1997
Research Assistant	Earth & Environmental Science New Mexico Institute of Mining and Technology	5/1989 to 1/1991
Laboratory and Field Assistant	Earth & Environmental Science New Mexico Institute of Mining and Technology	5/1986 to 8/1987

ORCID: 0000-0002-1380-6316

#### **D. Relevant Professional Experience**

<i>Position</i>	<i>Entity</i>	<i>Dates</i>
Deputy Executive Administrator	Texas Water Development Board	2/2009 to 10/2017
Division Director	Texas Water Development Board	5/2003 to 2/2009
Assistant Division Director	Texas Water Development Board	8/2000 to 5/2003
Unit Leader/Hydrologist V	Texas Water Development Board	8/1999 to 7/2000
Laboratory Technician	Daniel B. Stephens and Associates	8/1987 to 5/1989
Dishwasher	New Mexico Institute of Mining and Technology	8/1985 to 5/1986

#### **E. Other Professional Credentials**

Professional Geoscientist, Texas (license #469)  
 Fellows Program, Center for Public Policy Dispute Resolution, The University of Texas  
 School of Law (2006)  
 Governor's Executive Development Program, Lyndon B. Johnson School of Public Affairs,  
 The University of Texas at Austin, three-week course in fall of 2004.  
 Management Development Program, Governor's Center for Management Development,  
 June 26-30, 2000.

## F. Quick links

- ANALYTICS
  - [Google Scholar](#) (h-index 24 [all] 15 [since 2019]; i10-index 54 [all] 21 [since 2019])
  - [Scopus](#) (h-index 10)
  - [Academia](#)
  - [ResearchGate](#)
- SCHOLARLY/CREATIVE
  - Works in Print (including works accepted, forthcoming, in press)
    - [Books](#)
    - [Articles](#)
      - [Refereed Journal Articles](#)
      - [Non-refereed Articles](#)
    - [Conference Proceedings](#)
      - [Refereed](#)
      - [Non-refereed](#)
    - [Abstracts](#)
    - [Reports](#)
    - [Contract reports](#)
    - [Book Reviews](#)
    - [Guidebooks](#)
    - [Newsletter/magazine/newspaper articles](#)
    - [Albums](#)
  - Works not in Print
    - [Invited Talks, Lectures, and Presentations](#)
    - [Panels](#)
    - [Consultancies](#)
    - [Workshops](#)
    - [Other Works not in Print](#)
    - [Expert Witness and Testimony](#)
    - [Media](#)
    - [Social media](#)
  - Grants and Contracts
    - [Funded External Grants and Contracts](#)
    - [Submitted, but not Funded, External Grants and Contracts](#)
    - [Fellowships, Awards, Honors](#)
- SERVICE
  - [Institutional](#)
  - [Professional](#)
    - [Affiliations](#)
    - [Committees](#)
    - [Peer Reviews](#)
  - [Community](#)
  - [Service Honors and Awards](#)
  - [Professional Development](#)

## II. TEACHING

### A. Courses Taught

GEO 4334 Groundwater Resources, Department of Geography and Environmental Studies, Texas State University (Fall 2018; Fall 2019; Fall 2020 [4.34/5 teaching evaluation]; Fall 2021 [4.61/5]; Fall 2022 [5.0/5]; Fall 2023 [5.0/2])

GEO 5370 Seminar in Applied Physical Geography (Groundwater Resources), Department of Geography and Environmental Studies, Texas State University (Fall 2021; Fall 2022; Fall 2023 [4.3/3])

GEO 5395 Problems in Applied Geography (Water and Policy), Department of Geography and Environmental Studies, Texas State University (Spring 2023 [5.0/2])

GEO 7370 Problems in Applied Geography (Water Policy), Department of Geography and Environmental Studies, Texas State University (Spring 2023 [5.0/1])

GEO 7290 Independent Study (2021, 2022)

SUST 5398 Professional Project (2023)

SUST 5399A Thesis (2023)

Co-instructor, Groundwater Management in Texas—PA 682A and GEO 391, The University of Texas at Austin, Fall 2006 and Spring 2007.

Adjunct Assistant Professor, The University of Texas at Austin (September 2005–January 2006). Taught a semester graduate course in numerical groundwater flow modeling.

### B. Graduate Theses/Dissertations, Honors Theses, or Exit Committees

**in progress (2 PhD committees [chair on 1] and 6 Masters committees [chair on 4]):**

7. *Kimper, Corinne, in progress, The Past, Present, and Future of Las Moras Springs: Sustainability Studies, Department of Sociology, Texas State University, Master's [chair; 10/2023–present]*
6. *Magar, Neelam Thapa, in progress, Enhancing Recharge in the Edwards Aquifer of Texas: Sustainability Studies, Department of Sociology, Texas State University, Master's [chair; 10/2023–present]*
5. *Falk, Ashley, in progress, PFAS in Texas: Sustainability Studies, Department of Sociology, Texas State University, Master's [chair; 10/2023–present]*
4. *Elegbe, Alain, in progress, Effect of climate change on the water resources of West Africa: Department of Geography and Environmental Studies, Texas State University, Ph.D. [member; 10/2023–present]*
3. *Mulin, Natalie, in progress, Effect of the 2000-2023(?) drought on the San Antonio Segment of the Edwards Aquifer: Sustainability Studies, Department of Sociology, Texas State University, Master's [chair; 11/2023–present]*
2. *Adams, Andrews, in progress, [climate change and water resources], Department of Geography and Environmental Studies, Texas State University, Ph.D. [chair; 1/2023–present]*
1. *Thompson, Alexandra, in progress, [groundwater sustainability], Sustainability Studies, Department of Sociology, Texas State University, Master's [chair; 2021–present]*

**complete:**

16. Staska, Sophia, 2024, Water Works Over Watersheds—Texas’ Geography of Interbasin Water Transfers: Department of Geography and Environmental Studies, Master’s thesis [member; 2023–2024]
15. Jackson, Desiree, 2023, Development of optical brightener monitoring community science methods to detect human fecal contamination: Sustainability Studies, Department of Sociology, Texas State University, Master’s [chair; 2023]
14. Bose, Pryanjali, 2023, Drought dynamics in the Canadian River Basin, United States: Department of Geography and Environmental Studies, Texas State University, Master’s [member; 2022–2023]
13. Whiley, Delorean S., 2023, Crafting water stewardship: Texas craft breweries as water advocates—A participatory action research project: Department of Geography and Environmental Studies, Texas State University, Ph.D. [member; 2022–2023]
12. Briones, Ricardo, 2023, The firm yield of rainwater harvesting in Texas, Sustainability Studies, Department of Sociology, Texas State University, Master’s [chair; 2021–2023]
11. Acosta, Shelby N., 2023, Geospatial analysis of riparian condition in Lockhart, Texas—An investigation of the index of riparian integrity: directed research report in partial requirements for a Master’s degree, Department of Geography and Environmental Studies, Texas State University [chair; 2021–2023]
10. Adams, Andrew T., 2022, Exploring Individuals’ Affective Interaction with the Object of Water After an Infrastructure Disaster: Department of Geography and Environmental Studies, Texas State University, Master’s Thesis, 146 p. [chair; 2020-2022]
9. Filippone, Francesca, 2022, To Flow or Not To Flow—A Policy Analysis on the Implementation of Environmental Flow Legislation in Texas: Independent Study, Department of Geography and Environmental Studies, Texas State University, [chair; 2021–2022]
8. Winkler, Timothy, 2021, Assessing Municipal Conservation as a Water Supply Strategy in Texas—A Tale of Seven Mid-Sized Cities: independent study for a Master’s of Science degree in Sustainability Studies, Texas State University [chair, 2021]
7. Barr, Carson Jozef, 2020, It’s Sedimentary—The Viability of a Groundwater Conservation District in Llano County: Geography Department, Texas State University, Honors Thesis [supervising professor]
6. McColly, Quinn, 2020, Market mechanisms and efficient allocation of water: Modelling water prices, option contracts on water, and enhancing frameworks: Ph.D. dissertation, Texas A&M University-Corpus Christi [committee member]
5. Schreiber, Claire, 2016, Water Use Patterns: Examining the Impact of Population Density on Municipal Drought Response: Master of Public Affairs thesis, The University of Texas at Austin [co-supervisor with Sheila Olmstead]
4. Roberts, Susan, 2010, Conjunctive management in the Rio Grande basin: Ph.D. Dissertation, Texas State University-San Marcos [committee member]
3. Nance, Seay, 2010, Hydrogeochemistry of the Edwards-Trinity (Plateau) aquifer: Ph.D. Dissertation, The University of Texas at Austin [committee member]
2. Hemphill, Lloyd, 2005, The Leona Aquifer in Caldwell and Hays County, Texas: M.S. Thesis, The University of Texas at Austin [committee member]
1. Garza-Fresca, Beatriz, 2004, Urban effects on groundwater recharge in Austin, Texas: M.S. Thesis, The University of Texas at Austin, 173 p. [committee member]

### C. Guest classroom lectures:

61. Mace, R.E., 2023, Groundwater Sustainability: presented to Applied Water Resources (GEO 5334 and GEO 7370), Department of Geography and Environmental Studies, Texas State University, San Marcos, Texas; October 19, 2023 [15]
60. Mace, R.E., 2023, Geographers doing sustainability—Groundwater for the Future? presented to Sustainability Seminar (SUST 5301); Department of Sociology, Texas State University, San Marcos, Texas; October 3, 2023 [8]
59. Mace, R.E., 2023, Groundwater sustainability: presented to Applied Karst Hydrology (GEO 377k/391k); Department of Earth and Planetary Sciences, The University of Texas at Austin, Austin, Texas; September 18, 2023 [15]
58. Mace, R.E., 2022, What is groundwater sustainability? presented to GEOL 4421 Hydrogeology, Department of Geography and Environmental Studies, Texas State University, San Marcos, Texas [4]
57. Mace, R.E., 2022, Springs and change: presented to GEO 377k/391k, Applied Karst Hydrogeology; The University of Texas at Austin; Austin, Texas; September 26 [15]
56. Mace, R.E., 2022, What is groundwater sustainability? presented to BLAW 4382A: Sustainable Development and Law, Texas State University, San Marcos, Texas; September 14 [30]
55. Mace, R.E., and Galaviz, N., 2021, “Revisiting Gunnar Brune’s ‘Springs of Texas’” presented to GEO 377k/391k, Applied Karst Hydrogeology, The University of Texas at Austin, Austin, Texas, September 30 [25].
54. Mace, R.E., 2021, “The Hydrohistory of Comanche Springs in Fort Stockton, Texas” presented to GEO 4393/5326: Parks and Protected Places, Texas State University, San Marcos, Texas, September 15 [25].
53. Mace, R.E., and Galaviz, N., 2021, “Revisiting Gunnar Brune’s ‘Springs of Texas’” presented to GEO 4346 Hydrogeology, Baylor University, Waco, Texas, September 9 [15].
52. “*Texas Water Development Board in Practice: The Regional Planning Process and SWIFT Advancing the Goals of Federal, State and Local Water Laws, Rules, and Policies*” presented virtually to WATR 3312/5312; POLS3315, Texas A&M University at San Antonio, April 13, 2021.
51. “*Groundwater and Surface Water in Texas*” recorded for GEO 4393/5395, Theory and Practice of Parks and Protected Areas, Texas State University, San Marcos, Texas; February 28, 2021.
50. “*Water Sustainability*” presented to SUST 5301, Texas State University, November 18, 2020.
49. “*The Hydrohistory of Comanche Springs in Fort Stockton, Texas (and How It Changes Our Understanding of the Hydrogeology)*” presented to GEO 5050, Geo Technical Sessions, Geosciences Department, Baylor University, September 18, 2020 [50]
48. “*Climate Change and Equity*” presented to GEO 5309, Geographical Analysis, Texas State University, San Marcos, Texas; September 10, 2020 [30]
47. “*Groundwater and Surface Water in Texas*” presented to GEO 4393/5395, Theory and Practice of Parks and Protected Areas, Texas State University, San Marcos, Texas; February 25, 2020. [20]

46. *"Policy and Science: A Match Made in Heaven?"* presented to GEO 5309, Geographical Analysis, Texas State University, San Marcos, Texas; November 8, 2018 [30]
45. *"Water resources, conservation, and challenges in Texas"* presented to GEO 3329: Geography of Texas, Texas State University, San Marcos, Texas; October 23, 2018 [30]
44. *"Austin Water Forward: 100 years of Water Supply"* presented to Planet Texas 2050 Graduate Seminar, The Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas; April 23, 2018. [12]
43. *"All's Fair in Love, War, and Groundwater Governance"* presented to EER Groundwater, The University of Texas at Austin; Austin, Texas; April 16, 2018. [20]
42. *"Managing (?) Groundwater in Texas"* presented to GEO 5393D. Water Resource Planning, San Marcos, Texas; March 29, 2018. [6]
41. *"How to be a 'social' scientist"* presented to Environmental Science Professionalism II: Science Communication (29510), The University of Texas at Austin, Austin, Texas, February 26, 2018 [30]
40. *"Outdoor water use."* Presented to Geo 5395, Problems in Applied Geography, Texas State University, San Marcos, Texas, April 20, 2017.
39. *"Under pressure: The flowing (and unflowing...) history of artesian water in Texas"* presented to the Groundwater to Gulf teacher training seminar, Austin, Texas, June 21, 2016.
38. *"If I was water king for a day"* presented to EER 396, The University of Texas at Austin, Austin, Texas, April 17, 2016.
37. *"What's in Robert's head this week?"* presented to Building Disciplines Programs 101, The University of Texas at Austin, Austin, Texas; February 25, 2016.
36. *"Groundwater management redux: The past, the present, the future"* presented to GEO 6813, The University of Texas at San Antonio, San Antonio, Texas, November 4, 2015.
35. *"Groundwater availability in Texas"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 2, 2015.
34. *"Cycling around the water cycle."* Presented to Texas Water Policy PA388K, LBJ School of Public Affairs, The University of Texas at Austin (Commissioner Karen Huber, instructor), Austin, Texas, September 2, 2014.
33. *"Aquifers 101"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, August 26, 2015.
32. *"Groundwater availability in Texas"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 3, 2014.
31. *"Aquifers 101"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, August 27, 2014.
30. *"Cycling around the water cycle"* presented to Texas Water Policy PA388K, LBJ School of Public Affairs, The University of Texas at Austin (Commissioner Karen Huber, instructor), Austin, Texas, August 27, 2014.
29. *"The role of conservation in long-term water planning"* presented to the UT Law School, Austin, Texas, June 24, 2014.
28. *"How groundwater management helps (and hinders...) a growing Texas"* presented to EER 396, The University of Texas at Austin, Austin, Texas, April 21, 2014.

27. *"What comes around goes around: Recycling water in Texas (Haven't I drunk you before?)"* presented to Building Disciplines Programs 101, The University of Texas at Austin, Austin, Texas, February 6, 2014.
26. *"Groundwater (and management) in Texas"* presented to the "Water Without Boundaries" bi-national class (WMHS 681), College Station, September 5, 2013.
25. *"Whiskey's fer drinkin', water's fer fightin'!"* presented to the BDP 101 Class, Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, February 19, 2013.
24. *"Desired future conditions: The new groundwater availability for Texas"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 26, 2012.
23. *"The times they are a slowlog': How a slowlog' climate affects our water resources"* presented to EER 396. The University of Texas at Austin, Austin, Texas, April 2, 2012.
22. *"Responding to drought (and megadrought) in Texas"* presented to CE 374K Hydrology, The University of Texas at Austin, Austin, Texas, February 27, 2012.
21. *"Is Texas water sustainable?"* presented to the BDP 101 Class, Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, February 22, 2012.
20. *"In hot water? How climate change may affect the water resources of Texas"* presented to the Energy and Earth Resources class (EER 396), The University of Texas at Austin, Austin, Texas, April 4, 2011.
19. *"Is Texas water sustainable?"* presented to the BDP101 class, "Environmental Change and Sustainability" at the University of Texas at Austin, Austin, Texas, January 27, 2011.
18. *"Desired Future Conditions: The new groundwater availability for Texas"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 22, 2010.
17. *"Aquifers 101"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 2, 2010.
16. *"A water policy and science trip around the capital"* led a field trip for GEO 371C/EVS 311, Field Seminar in Environmental Science and Sustainability, The University of Texas at Austin, Austin, Texas, April 23, 2010.
15. *"In hot water? How climate change may affect the water resources of Texas"* presented to the Energy and Earth Resources class (EER 396), The University of Texas at Austin, Austin, Texas, April 5, 2010.
14. *"Is Texas water sustainable?"* presented to the BDP 101 class, "Environmental Change and Sustainability", The University of Texas at Austin, Austin, Texas, March 3, 2010.
13. *"Desired Future Conditions"* presented to the class for Geography 4334 (Groundwater Resources) Texas State University, San Marcos, Texas, September 17, 2009.
12. *"In hot water? How climate change may affect the water resources of Texas"* presented as part of the Texas Earth and Space Science (TxESS) Revolution curriculum at the University of Texas Institute for Geophysics, Austin, Texas, October 24, 2008.
11. *"Desired future conditions"* presented to the Geography 4334 class at Texas State University, San Marcos, Texas, February 6, 2008.
10. *"A streetcar named desired future conditions—The future groundwater availability of Texas"* presented to Geography 4334 (Groundwater Resources) class at Texas State University, September 21, 2006.



9. “Groundwater is no longer mysterious and occult” presented at the Austin Community College, Austin, October 20, 2003.
8. “MODFLOW computer modeling of the Trinity aquifer in Central Texas” guest speaker for Geology 3321 Hydrogeology, Southwest Texas State University, April 17, 2000.
7. “Effect of well storage, turbulent flow, and barometric effects on well tests” presented to Civil Engineering CE 374L, Groundwater Hydraulics, October 29, 1998.
6. “Superposition and image well theory” presented to Civil Engineering CE 374L, Groundwater Hydraulics, September 24, 1998.
5. “Developing conceptual ground-water flow and contaminant transport models in fractured rock” presented to GEO391c, Physical Hydrogeology, The University of Texas at Austin, September 24, 1997.
4. “Measurement and analysis of fracture roughness” presented to Geology 391 at The University of Texas at Austin, Department of Geological Sciences, March 28, 1997.
3. “Conducting hydrogeologic studies in fractured rocks: An example from the Austin Chalk” presented to Geology 391 at The University of Texas at Austin, Department of Geological Sciences, February 26, 1997.
2. “Diffusion in fractured rocks” presented to Geology 391 at The University of Texas at Austin, Department of Geological Sciences.
1. “Hydraulic testing in fractured rocks” presented to The University of Texas at Austin, Department of Geological Sciences, Austin, Texas, Geology 391, Fractured rock hydrology and mechanics, 1996.

### III. SCHOLARLY/CREATIVE

#### 4. Works in Print (including works accepted, forthcoming, in press)

##### 4. Books

##### 4. Books

*Mace, R.E., in preparation, Beyond a Seasonable Drought—Addressing Climate Change in Water Resource Planning and Development: Prentice-Hall (under contract)*

*Mace, R.E., in preparation, How to Write Right (Technically Speaking)*

2. **Mace, R.E.**, 2022, Groundwater Sustainability—Birth, Development, Application: Palgrave Studies in Environmental Sustainability, Springer International Publishing, ISBN-13: 9783031135156, 262 p.

1. Hornberger, G.M., Bradbury, K.R., Chin, Y.-P., Gilinsky, E., Gleick, P.H., **Mace, R.E.**, Nolin, A.W., Patterson, R.K., Reinfelder, Y.F., Tank, J.L.O., and Wheater, H.S., 2018, Future Water Priorities for the Nation—Directions for the U.S. Geological Survey Water Mission Area: The National Academies Press, Washington, D.C., 96 p. [link](#)

## b. Chapters in Books

10. Schwartz, B.F., **Mace**, R.E., and Sprouse, P., 2023, Texas in Stevens, L.E. (editor), *Springs of the World—Distribution, Ecology, and Conservation Status*: Springs Stewardship Institute Monograph 1, p. 173-174, ISBN: 978-0-578-96333-4, <https://springstewardshipinstitute.org/globalspringsbook>
9. **Mace**, R.E., 2020, Foreword in Krishna, H.J., Fifty Years in America with Glimpses of Heaven—The True Story of an Immigrant from India: Independently published, ISBN-13: 979-8668261345, p. vii.
8. Rubinstein, C., and **Mace**, R.E., 2020, Understanding Texas weather and climate and how climate change might impact water resources: Essentials of Texas Water Resources, 6<sup>th</sup> Edition, Chapter 2, Texas Bar Books, p. 2-1–2-26.
7. **Mace**, R.E., 2019, The use of water from the Edwards Aquifers, Texas, in Sharp, J.M., Jr., Green, R.T., and Schindel, G.M., eds., The Edwards Aquifer: The Past, Present, and Future of a Vital Water Resource: Geological Society of America Memoir 215, p. 207–212.
6. **Mace**, R.E., 2018, Groundwater Management: in Groundwater—State of the Science and Practice, National Ground Water Association Press, Westerville, Ohio, p. 38–40.
5. **Mace**, R.E., and Ridgeway, C.K., 2016, Forecasting underground rain—Groundwater availability modeling: in Sahs, M.K., editor, *Essentials of Texas Water Resources*, TexasBarBooks, State Bar of Texas, Chapter 19, p. 423–438. (previous editions published in 2009 (first edition), 2012 (second edition), 2014 (third edition), and 2016 (fourth edition))
4. **Mace**, R.E., Marrett, R.A., and Hovorka, S.D., 2005, Fractal scaling of secondary porosity in karstic exposures of the Edwards aquifer: in Beck, B.F., editor, *Sinkholes and the Engineering and Environmental Impacts of Karst*: American Society of Civil Engineers, Geotechnical Special Publication No. 144, p. 178–187.
3. **Mace**, R.E., and Votteler, T.H., 2002, The Edwards aquifer—Water, policy, and science in transition: in Martin, J.B., Wicks, C.M., and Sasowsky, I.D., editors, *Hydrogeology and Biology of Post-Paleozoic Carbonate Aquifers*: Special Publication 7, Karst Waters Institute, p. 153–156.
2. **Mace**, R.E., and Hovorka, S.D., 2000, Estimating porosity and permeability in a karstic aquifer using core plugs, well tests, and outcrop measurements: in Sasowsky, I.D., and Wicks, C.M., editors, *Groundwater Flow and Contaminant Transport in Carbonate Aquifers*: Brookfield, Vermont, A.A. Balkema, p. 93–111.
1. Halihan, T., **Mace**, R.E., and Sharp, J.M., Jr., 2000, Flow in the San Antonio segment of the Edwards aquifer- matrix, fractures, or conduits? In Sasowsky, I.D., and Wicks, C.M., editors, *Groundwater Flow and Contaminant Transport in Carbonate Aquifers*: A.A. Balkema, Brookfield, p. 129–146.

## 2. Articles

### 4. Refereed Journal Articles

*in press*

Cook, M.A., Tremaine, D.M., Wyatt, B.M., Banner, J.L., Charles, J., Berg, M., Bruno, T., Glazer, Y.R., Callison, C., **Mace**, R.E., Miller, V., Bare, R., Flores, R.S., Seefeldt, J., Fuller, A., and Niyogi, D., *in press*, *Addressing challenges to ensuring justice and sustainability in policy and infrastructure for Texas water resources in the 21st century: submitted to the Texas Water Journal*.

***in revision***

Andrews, A.T., Villagran, M., and **Mace**, R.E., *in revision*, *Disaster and recovery in the Guadalupe Valley Lakes Region of Central Texas: submitted the Texas Water Journal*.

***in review***

***in preparation***

Staska, S., Julian, J.P., **Mace**, R.E., and Votteler, T., *in prep*, *Waterworks over watersheds—Texas’ geography of interbasin water transfers:*  
Adams, A., Briones, R.O., Falk, A.D., Zhang, Y., and **Mace**, R.E., *in preparation*, *Water resources in the 88th Texas Legislative Session: Texas Water Journal*  
Norris, C., Opdyke, D., and **Mace**, R.E., *in preparation*, *Estimation of seasonal discharge (2008–2010) from the formerly perennial Comanche Springs: Texas Water Journal*

***published***

31. **Mace**, R.E., and Jones, C., 2023, Frac sand facilities and their potential effects on the groundwater resources of the Monahans-Mescalero Sand Ecosystem, Permian Basin, Texas: *Texas Water Journal*, v. 14, n. 1, p. 62-80, <https://doi.org/10.21423/twj.v14i1.7132>
30. Rubinstein, C., Seaton, C., and **Mace**, R.E., 2022, Beyond Senate Bill 3—How to Achieve Environmental Flows in Texas Under Prior Appropriation: *Texas Water Journal*, v 13, n 1, p 13-26.
29. **Mace**, R.E., 2021, Comment on “Exploring Groundwater Recoverability in Texas: Maximum Economically Recoverable Storage” by Justin C. Thompson, Charles W. Kreitler, and Michael H. Young: *Texas Water Journal*, v. 12, n. 1, p. 202-204.
28. **Mace**, R.E., 2021, Planning for Climate Change (When You Can’t Plan for Climate Change): *Water Resources Impact*, v. 23, n. 6, p. 5-7.
27. Glazer, Y.R., Tremaine, D.M., Banner, J.L., Cook, M., **Mace**, R.E., Nielsen-Gammon, J., Grubert, E., Kramer, K., Stoner, A.M.K., Wyatt, B.M., Mayer, A., Beach, T., Correll, R., and Webber, M.E., 2021, Winter Storm Uri: A test of Texas’ water infrastructure and water resource resilience to extreme winter weather events: *Journal of Extreme Events*, 27 p. <https://doi.org/10.1142/S2345737621500226>
26. Stevens, L.E., Aly, A.A., Arpin, S.M., Apostolova, I., Ashley, G.M., Barba, P.Q., Barquín, J., Beauger, A., Benaabidate, L., Bhat, S.U., Bouchaou, L., Cantonati, M., Carroll, T.M., Death, R., Dwire, K.A., Felippe, M.F., Fensham,

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6. Lundquist, J., Saribudak, M., and **Mace**, R. (field trip leaders), and Sullivan, C., and Dickerson, P.W. (editors), 2015, Austin Chalk (UK)—Stratigraphic, Geophysical, Hydrological and Hydrocarbon Exploration/Production Characteristics: AGS Guidebook 36, 50<sup>th</sup> Anniversary Field Symposium, October 17–18, 2015, Austin Geological Society, 140 p. *unrefereed*
5. **Mace**, R.E., 2015, The hydrogeology of the Austin Chalk: *in* Lundquist, J., Saribudak, M., and Mace, R. (field trip leaders), and Sullivan, C., and Dickerson, P.W. (editors), *Austin Chalk (UK)—Stratigraphic, Geophysical, Hydrological and Hydrocarbon Exploration/Production Characteristics*: AGS Guidebook 36, 50<sup>th</sup> Anniversary Field Symposium, October 17–18, 2015, Austin Geological Society, 140 p. *unrefereed*
4. **Mace**, R.E., and Williams, B., editors, 2004, Lignite, clay and water—The Wilcox Group in Central Texas: Austin Geological Society Guidebook 23, 96 p.
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## 8. Newsletter/magazine/newspaper articles

**think+water** (column for the monthly electronic newsletter Texas+Water)

40. Mace, R.E., 2024, think+water: Water reuse in the Hill Country, Texas water markets, and frack water from the Wilcox: column for the Texas+Water newsletter, posted July 3, 2024 [[link](#)]
39. Mace, R.E., 2024, think+water: Vista Ridge, aquifer storage and recovery in New Braunfels, and a rollercoaster of land deformation in the Delaware Basin of West Texas column for the Texas+Water newsletter, posted June 3, 2024 [[link](#)]
38. Mace, R.E., 2024, think+water: The economics of water levels, springs drying up, and more water in the future? column for the Texas+Water newsletter, posted March 5, 2024 [[link](#)]
37. Mace, R.E., 2024, think+water: Boil water notices during Uri, predicting water levels with neuro-fuzzies, and produced water for agriculture: column for the Texas+Water newsletter, posted January 29, 2024 [[link](#)]
36. Mace, R.E., 2024, think+water: Water for Boerne, shiners in the Upper Brazos, and Texmesonet: column for the Texas+Water newsletter, posted January 2, 2024 [[link](#)]
35. Mace, R.E., 2023, think+water: Conserving water for power, the straight poop on stormwater retention, and water for peanuts: column for the Texas+Water newsletter, posted October 27, 2023 [[link](#)]
34. Mace, R.E., 2023, think+water: Climate change and irrigation, climate change and firm yield, and governance gaps in colonias flood planning: column for the Texas+Water newsletter, posted August 28, 2023 [[link](#)]
33. Mace, R.E., 2023, think+water: Hands across the Edwards Aquifer and climate-smart agriculture: column for the Texas+Water newsletter, posted June 26, 2023 [[link](#)]
32. Mace, R.E., 2023, think+water: Ecosystem services value, TMDLs and E. coli, and a warming Gulf of Mexico: column for the Texas+Water newsletter, posted May 30, 2023 [[link](#)]
31. Mace, R.E., 2023, think+water: Climate change and the Pecos River Compact, climate change and South Central Texas, and San Antonio's aquifer storage and recovery project: column for the Texas+Water newsletter, posted April 24, 2023 [[link](#)]
30. Mace, R.E., 2023, think+water: Water affordability and climate change in El Paso, home on the future range of the Ogallala, and resilience after Winter

- Storm Uri: column for the Texas+Water newsletter, posted March 27, 2023 [\[link\]](#)
29. Mace, R.E., 2023, think+water: Induced earthquakes, bad algae, and fishing guides: column for the Texas+Water newsletter, posted February 27, 2023 [\[link\]](#)
  28. Mace, R.E., 2023, think+water: Conserving water in citrus groves, black outages matter, and a massive load of mercury for Galveston Bay: column for the Texas+Water newsletter, posted January 23, 2023 [\[link\]](#)
  27. Mace, R.E., 2022, think+water: Long-term changes in Lavaca Bay, Uri and post-traumatic stress, and Texan perceptions of reuse and desalination: column for the Texas+Water newsletter, posted December 16, 2022 [\[link\]](#)
  26. Mace, R.E., 2022, think+water: A sinking donut around Houston, water loss in Texas, and woody waters: column for the Texas+Water newsletter, posted October 24, 2022 [\[link\]](#)
  25. Mace, R.E., 2022, think+water: Groundwater for estuaries, injecting into the Delaware Basin, and the surface-water disposal of produced water from the Carrizo-Wilcox: column for the Texas+Water newsletter, posted September 27, 2022 [\[link\]](#)
  24. Mace, R.E., 2022, think+water: Rainwater is unsafe to drink, increases in lake evaporation, and fewer tropical storms with warming (except for the North Atlantic): column for the Texas+Water newsletter, posted August 22, 2022 [\[link\]](#)
  23. Mace, R.E., 2022, think+water: Uri saved Texas wheat, climate change might be good for corn in Burleson County, and farmers can extend Ogallala water by mixing it with Dockum water: column for the Texas+Water newsletter, posted June 27, 2022 [\[link\]](#)
  22. Mace, R.E., 2022, think+water: Long-term trends in the U.S. Drought Monitor, how to achieve environmental flows, and using love to solve water issues: column for the Texas+Water newsletter, posted May 27, 2022 [\[link\]](#)
  21. Mace, R.E., 2022, think+water: Naturally occurring radioactive materials in Permian produced water, COVID and water use patterns, and funding for colonias: column for the Texas+Water newsletter, posted April 26, 2022 [\[link\]](#)
  20. Mace, R.E., 2022, think+water: Flood Control To Water Supply May Not Pay; Black Communities in Houston Suffer More From Natural Disasters Than Others (But Are Now More Resilient); Irrigating Less Land Can Make More Money: column for the Texas+Water newsletter, posted March 21, 2022 [\[link\]](#)
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  17. Mace, R.E., 2021, think+water— How To Be an Anti-racist Geoscience Organization: column for the Texas+Water newsletter, posted December 15, 2021 [\[link\]](#)
  16. Mace, R.E., 2021, think+water—Focused flows, COVID-19 and the coast, and warming-induced drought: column for the Texas+Water newsletter, posted November 22, 2021 [\[link\]](#)

15. Mace, R.E., 2021, think+water—Fecal Matter in the Edwards Recharge Zone, PFASs in Galveston Bay, and a Review of Reservoirs in Texas: column for the Texas+Water newsletter, posted October 25, 2021 [\[link\]](#)
14. Mace, R.E., 2021, think+water— Surface Water–Groundwater Interaction in the San Antonio River, Surface Water–Groundwater Interaction in the Rio Grande in Mesilla Valley, and the Drought of the 1950s if the World Was 3° Celsius Warmer: column for the Texas+Water newsletter, posted September 27, 2021 [\[link\]](#)
13. Mace, R.E., 2021, think+water— Climate change education in DFW, mussels and the 2011 Drought, and sampling springs in the Edwards Aquifer System: column for the Texas+Water newsletter, posted August 24, 2021 [\[link\]](#)
12. Mace, R.E., 2021, think+water— Teaching climate change, climate-forced drought and the power grid, and environmental impacts of the pandemic: column for the Texas+Water newsletter, posted July 22, 2021 [\[link\]](#)
11. Mace, R.E., 2021, think+water— Bacterial pollution and sea-level rise, the cost of climate change-induced flooding in Houston, and a model of Cabeza de Vaca’s raft to Texas: column for the Texas+Water newsletter, posted June 28, 2021 [\[link\]](#)
10. Mace, R.E., 2021, think+water—Groundwater Sustainability in Groundwater Management Plans, What Texans Think About Climate Change, and Primacy in Reporting Toxic Releases: column for the Texas+Water newsletter, posted May 22, 2021 [\[link\]](#)
9. Mace, R.E., 2021, think+water: Groundwater Words, Environmental Flows on the Red River, and Wichita Falls’ Excellent Adventure with DPR and IPR: column for the Texas+Water newsletter, posted April 26, 2021 [\[link\]](#)
8. Mace, R.E., 2021, think+water— The Sociodynamics of Citizen Science, Surface Water in Texas, and Climate Change Impacts on Water in Semi-Arid Texas: column for the Texas+Water newsletter, posted March 23, 2021 [\[link\]](#).
7. Mace, R.E., 2021, think+water—Testing TERS, Sea-Surface Oscillations and Texas, and the Future of Science in America: column for the Texas+Water newsletter, posted January 24, 2021 [\[link\]](#).
6. Mace, R.E., 2020, think+water— Mindfulness, Ecological Economics and Reuse Potential for Combined Sanitary Wastewater and Stormwater Systems: column for the Texas+Water newsletter, posted December 25, 2020 [\[link\]](#).
5. Mace, R.E., 2020, think+water—Dam Failures, Lemon Water and Naturalized Flows: column for the Texas+Water newsletter, posted September 25, 2020 [\[link\]](#).
4. Mace, R.E., 2020, think+water—Harvey over-freshened Galveston Bay, warming and urban Springs, nurdle patrols and snakes on a (Gulf Coastal) plain: column for the Texas+Water newsletter, posted August 26 [\[link\]](#).
3. Mace, R.E., 2020, think+water— Fights over the Rio Grande, energy and water, groundwater contamination in colonias, and a saintlier St. Augustine: column for the Texas+Water newsletter, posted July 29 [\[link\]](#).
2. Mace, R.E., 2020, think+water—Brackish groundwater and subsidence, riparian corridors and land-use/climate impacts on urban watershed: column for the Texas+Water newsletter, posted June 24 [\[link\]](#).
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**outlook+water** (column for the monthly electronic newsletter Texas+Water)

50. Mace, R.E., 2024, outlook+water: Little change in drought and reservoir conditions, bye-bye El Niño, drought expected to remain: column for the Texas+Water newsletter, posted July 3, 2024 [[link](#)]
49. Mace, R.E., 2024, outlook+water: Drought slightly decreases but expected to persist and expand, El Niño fading, and active hurricane season predicted: column for the Texas+Water newsletter, posted June 3, 2024 [[link](#)]
48. Mace, R.E., 2024, outlook+water: Drought expands, reservoirs fuller, drought expected to expand in West Texas: column for the Texas+Water newsletter, posted May 6, 2024 [[link](#)]
47. Mace, R.E., 2024, outlook+water: Drought holding steady, La Niña on the way, possible improvements for the Hill Country: column for the Texas+Water newsletter, posted April 8, 2024 [[link](#)]
46. Mace, R.E., 2024, outlook+water: Drought conditions persist, a La Niña Watch, and drought expansion in the South: column for the Texas+Water newsletter, posted March 5, 2024 [[link](#)]
45. Mace, R.E., 2024, outlook+water: Big improvements in drought east of I-35, El Niño on the way out (and La Niña in the fall), and last year was the warmest on record: column for the Texas+Water newsletter, posted February 5, 2024 [[link](#)]
44. Mace, R.E., 2024, outlook+water: Drought improvements continue, drought blazes in Central and Far West Texas, and El Niño may end early: column for the Texas+Water newsletter, posted January 2, 2024 [[link](#)]
43. Mace, R.E., 2023, outlook+water: Drought nearly halved, El Niño through (maybe) may, less than a one in three chance of drought ending by the end of May: column for the Texas+Water newsletter, posted November 30, 2023 [[link](#)]
42. Mace, R.E., 2023, outlook+water: Short-term improvements, drought expected to linger, and winter is coming: column for the Texas+Water newsletter, posted October 27, 2023 [[link](#)]
41. Mace, R.E., 2023, outlook+water: Drought remains, wetter-than-normal conditions may be on the way, and the odds of a super El Niño: column for the Texas+Water newsletter, posted October 2, 2023 [[link](#)]
40. Mace, R.E., 2023, outlook+water: The drought deepens, drought is expected to get worse, high temps to continue: column for the Texas+Water newsletter, posted August 28, 2023 [[link](#)]
39. Mace, R.E., 2023, outlook+water— Drought expands, drought is expected to get worse, high temps to continue: column for the Texas+Water newsletter, posted July 26, 2023 [[link](#)]
38. Mace, R.E., 2023, outlook+water—El Niño is here, drought is down, reservoirs are (slightly) up: column for the Texas+Water newsletter, posted June 26, 2023 [[link](#)]
37. Mace, R.E., 2023, outlook+water— Drought down (but not out), El Niño almost certain this summer, warmer-than-normal temps and near-normal rainfall expected: column for the Texas+Water newsletter, posted May 30, 2023 [[link](#)]

36. Mace, R.E., 2023, outlook+water—Under an El Niño watch, drought stable (but expected to continue): column for the Texas+Water newsletter, posted April 24, 2023 [[link](#)]
35. Mace, R.E., 2023, outlook+water—La Niña now La Nada, drought expanding, drought expected to continue: column for the Texas+Water newsletter, posted March 27, 2023 [[link](#)]
34. Mace, R.E., 2023, outlook+water—Drought up, reservoir storage up, and La Niña (going) down: column for the Texas+Water newsletter, posted February 27, 2023 [[link](#)]
33. Mace, R.E., 2023, outlook+water—2022 was pretty drouthy, hot and dry is the new black, La Niña’s days are (still) numbered: column for the Texas+Water newsletter, posted January 20, 2023 [[link](#)]
32. Mace, R.E., 2022, outlook+water—Drought continues to improve, La Niña’s days are numbered, reservoirs levels rising: column for the Texas+Water newsletter, posted December 16, 2022 [[link](#)]
31. Mace, R.E., 2022, outlook+water—Drought improves but remains, La Niña still expected thru February, reservoirs levels up slightly: column for the Texas+Water newsletter, posted November 29, 2022 [[link](#)]
30. Mace, R.E., 2022, outlook+water—Drought roars back, La Niña expected thru February, expect a warmer and drier winter: column for the Texas+Water newsletter, posted October 24, 2022 [[link](#)]
29. Mace, R.E., 2022, outlook+water—Major drought improvements, drought expected to return, here comes the tropical season: column for the Texas+Water newsletter, posted September 26, 2022 [[link](#)]
28. Mace, R.E., 2022, outlook+water—97.2% of the state is abnormally dry or worse, July was the warmest July on record, and La Niña has an 80% chance of hanging out through December: column for the Texas+Water newsletter, posted August 22, 2022 [[link](#)]
27. Mace, R.E., 2022, outlook+water—99.2% of the state is abnormally dry or worse, June was the fifth warmest June on record, and La Niña is still on the menu for the fall: column for the Texas+Water newsletter, posted July 27, 2022 [[link](#)]
26. Mace, R.E., 2022, outlook+water—93% of the state is abnormally dry or worse, a potential third-year La Niña, May was dang hot: column for the Texas+Water newsletter, posted June 24, 2022 [[link](#)]
25. Mace, R.E., 2022, outlook+water—29% of state in exceptional drought, La Niña getting stronger and longer, expect an active hurricane season: column for the Texas+Water newsletter, posted May 25, 2022 [[link](#)]
24. Mace, R.E., 2022, outlook+water—88% of state in drought, La Niña is expected to continue through the summer and maybe the fall, expect an active hurricane season: column for the Texas+Water newsletter, posted April 19, 2022 [[link](#)]
23. Mace, R.E., 2022, outlook+water—90% Of State in Drought, Exceptional Drought in the High Plains, Drought Expected To Expand: column for the Texas+Water newsletter, posted March 21, 2022 [[link](#)]
22. Mace, R.E., 2022, outlook+water—78% Of State in Drought, Drought Expected To Expand, Bois D’Arc Now Online: column for the Texas+Water newsletter, posted February 21, 2022 [[link](#)]

21. Mace, R.E., 2022, outlook+water—Almost Entire State in Drought, Drought Expected To Expand, Warmest December on Record: column for the Texas+Water newsletter, posted January 21, 2022 [[link](#)]
20. Mace, R.E., 2021, outlook+water—More Than Half of Texas in Drought, No Rain in the Panhandle, Increased Chance of La Nada in April-June: column for the Texas+Water newsletter, posted December 13, 2021 [[link](#)]
19. Mace, R.E., 2021, outlook+water— No rains for the High Plains, drought intensifies, more drought coming: column for the Texas+Water newsletter, posted November 20, 2021 [[link](#)]
18. Mace, R.E., 2021, outlook+water— La Niña Arrives, Drought Intensifies, Drought Expected to Capture Most of the State: column for the Texas+Water newsletter, posted October 25, 2021 [[link](#)]
17. Mace, R.E., 2021, outlook+water— August Has Been Really Dry, Drought Is Back Like a Bad Penny, and There Is a 70-80% Chance of La Niña: column for the Texas+Water newsletter, posted September 27, 2021 [[link](#)]
16. Mace, R.E., 2021, outlook+water— outlook+water: Drought almost gone, a hot and cool July, and hurricane season in full force: column for the Texas+Water newsletter, posted August 23, 2021 [[link](#)]
15. Mace, R.E., 2021, outlook+water— Drought conditions improve, La Niña watch, and cooler- and wetter-than-normal conditions expected: column for the Texas+Water newsletter, posted July 22, 2021 [[link](#)]
14. Mace, R.E., 2021, outlook+water—drought conditions improve, statewide reservoir storage back to normal, and hotter- and wetter-than-normal conditions expected: column for the Texas+Water newsletter, posted June 28, 2021 [[link](#)]
13. Mace, R.E., 2021, outlook+water— Drought Conditions Improve, La Niña Has Ended, and a Busy Hurricane Season Expected: column for the Texas+Water newsletter, posted May 22, 2021 [[link](#)]
12. Mace, R.E., 2021, outlook+water—State-wide Drought is Back, Weak La Niña Conditions Projected through the Summer, and Possibly a Busier-Than-Usual Hurricane Season: column for the Texas+Water newsletter, posted April 26, 2021 [[link](#)]
11. Mace, R.E., 2021, outlook+water—State-wide Drought is Back, Weak La Niña Conditions Projected through the Summer, and Possibly a Busier-Than-Usual Hurricane Season: column for the Texas+Water newsletter, posted March 23, 2021 [[link](#)]
10. Mace, R.E., 2021, outlook+water—February 2021: column for the Texas+Water newsletter, posted February 21, 2021 [[link](#)]
9. Mace, R.E., 2021, outlook+water—Winter Storms Improve Drought Conditions, Exceptional Drought Conditions Remain on the Western Side of Texas and 2020 was Top-Ten Toasty: column for the Texas+Water newsletter, posted January 23, 2021 [[link](#)]
8. Mace, R.E., 2020, outlook+water—93 percent of Texas abnormally dry, La Niña may transition to La Nada and Santa will need Rudolph's services on Christmas Eve: column for the Texas+Water newsletter, posted December 24, 2020 [[link](#)]
7. Mace, R.E., 2020, outlook+water—A Hurricane Season for the Record Books, 98 Percent of Texas Abormally Dry, and Drought Projected Through Spring: column for the Texas+Water newsletter, posted November 30, 2020 [[link](#)]

6. Mace, R.E., 2020, outlook+water—A Horribly Dry October, Predicted Drought for Nearly All of Texas and Some (Promised) Relief from Mexico: column for the Texas+Water newsletter, posted October 27, 2020 [[link](#)]
5. Mace, R.E., 2020, outlook+water—The Atlantic Vincent van Gogh'd, Drought Relief and La Niña: column for the Texas+Water newsletter, posted September 25, 2020 [[link](#)].
4. Mace, R.E., 2020, outlook+water—Hurricane Laura, More Tropical Storms, and an Increased Chance for La Niña: column for the Texas+Water newsletter, posted August 25, 2020 [[link](#)].
3. Mace, R.E., 2020, outlook+water—Tropical Storm Hanna, a record-breaking tropical storm season, and a coin-flip La Niña for the fall: column for the Texas+Water newsletter, posted July 29, 2020 [[link](#)].
2. Mace, R.E., 2020, outlook+water—Climate trends, the return of drought, and a good chance La Nina: column for the Texas+Water newsletter, posted June 24, 2020 [[link](#)].
1. Mace, R.E., 2020, outlook+water—May 2020: column for the texas+water newsletter, posted May 26, [[link](#)].  
[monthly reports extend back to March 2018]

**lege+water** (column for the monthly electronic newsletter Texas+Water)

10. Votteler, T., and Mace, R.E., 2021, lege+water: April 2021 Update: column for the Texas+Water newsletter, posted April 28, 2021 [[link](#)].
  9. Votteler, T., and Mace, R.E., 2021, lege+water: mid-April 2021 Update: column for the Texas+Water newsletter, posted April 15, 2021 [[link](#)].
  8. Votteler, T., and Mace, R.E., 2021, lege+water: March 2021 Update: column for the Texas+Water newsletter, posted March 23, 2021 [[link](#)].
  7. Votteler, T., and Mace, R.E., 2021, leg+water—February 2021: column for the Texas+Water newsletter, posted February 25, 2021 [[link](#)].
  6. Votteler, T., and Mace, R.E., 2019, leg+water—June 2019: column for the Texas+Water newsletter, posted June 18, 2019 [[link](#)].
  5. Votteler, T., and Mace, R.E., 2019, leg+water—May 2019: column for the Texas+Water newsletter, posted May 20, 2019 [[link](#)].
  4. Votteler, T., and Mace, R.E., 2019, leg+water—April 2019: column for the Texas+Water newsletter, posted April 22, 2019 [[link](#)].
  3. Votteler, T., and Mace, R.E., 2019, leg+water—March 2019: column for the Texas+Water newsletter, posted March 25, 2019 [[link](#)].
  2. Votteler, T., and Mace, R.E., 2019, leg+water—February 2019: column for the Texas+Water newsletter, posted February 25, 2019 [[link](#)].
  1. Votteler, T., and Mace, R.E., 2019, leg+water—January 2019: column for the Texas+Water newsletter, posted January 23, 2019 [[link](#)].
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51. Mace, R.E., 2023, Opinion: Smart water strategies are crucial to Texas' prosperity: Austin American-Statesmen (editorial), March 26, 2023, <https://www.statesman.com/story/opinion/columns/your-voice/2023/03/26/opinion-smart-water-strategies-are-crucial-to-texas-prosperity/70035346007/>
  50. Puig-Williams, V., and Mace, R.E., 2022, Opinion—How to prevent repeat water crises? Reuse is a part of the answer: Austin American-Statesmen (editorial), February 13, 2022,

- <https://www.statesman.com/story/opinion/columns/2022/02/13/opinion-how-prevent-repeat-water-crises-reuse-strategies-part-answer/6738396001/>
49. Mace, R.E., 2021, The Hill Country, Cypress Creek, and you: Wimberley View, May 13, p. 8 [[link](#)]
  48. Leurig, S., and Mace, R., 2019, Can Fort Stockton reclaim its title as the Spring City of Texas? The Fort Stockton Pioneer, October 29 [[link](#)]
  47. Mace, R.E., 2019, With four million people and climate change, where will Austin’s water come from? Allandale Neighbor v34 n3 p.19-20.
  46. Mace, R.E., 2018, Invited response to “Dead Zones” letter to the editor: Acres USA, May 2018, p. 4–5.
  45. Mace, R.E., 2018, The Story of Texas Springs: North Texas e-News, July 17 (front page), [link](#).
  44. Mace, R.E., 2018, Springs have always been crucial to Texas and Texans: San Marcos Daily Record, July 13.
  43. Mace, R.E., 2018, The Story of Texas Springs: Texas Water Development Board featured story, July, [link](#).
  42. Mace, R.E., 2016, A Whirlwind Week of Windmills: headwaters, Texas Water Development Board newsletter, July, p. 3.
  41. Mace, R.E., 2016, Harnessing the Wind with American Steel: Ranch and Rural Living: San Angelo, Texas, August, p. 22–23 (reprint of Mace [2016] “Tilting of American Windmills”).
  40. Mace, R.E., 2016, Taking a Shower with the TCEQ: Confluence (Texas Water Conservation Association), June, p. 12–13.
  39. Mace, R.E., 2016, Tilting at American Windmills: Texas Water Development Board feature story, July 2016, [link](#).
  38. Mace, R.E., 2016, You’ve Got Water Mail: Confluence (Texas Water Conservation Association), October 2016, p. 12–14.
  37. Mace, R.E., Kalaswad, S., Mancha, E., and Meyer, J., 2016, Initial Brackish Groundwater Production Zones Designated: Fountainhead, 4<sup>th</sup> Quarter 2016, Texas Ground Water Association, p. 1, 6, 8.
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  35. Mace, R.E., 2015, Innovation Rippling in Brackish Groundwater Development: Texas Town & City, May, p. 36–37.
  34. Mace, R.E., 2015, Something Wicking This Way Comes: Confluence (Texas Water Conservation Association), October, p. 26-28.
  33. Mace, R.E., 2015, The Water Bill is Too Damn High! Allandale Neighbor, v. 30, no. 5, p. 18–19.
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  31. Mace, R.E., 2014, How low can you go? Spousal experiments in water conservation: Confluence (Texas Water Conservation Association), p. 13–15.
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28. Mace, R.E., 2012, It's so dry they've had to close two lanes at the swimming pool: H2O Quality Magazine (Texas Water Quality Association), Spring Issue, p. 21–22.
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26. Mace, R.E., and Wade, S., 2010, Impact of climate change on Texas groundwater needs further study: *Fountainhead* (Texas Ground Water Association), 1<sup>st</sup> quarter, p. 1, 4, 14.
25. Brown, B, and Mace, R.E., 2009, The current condition of desired future conditions: *Fountainhead*, Official Publication of the Texas Ground Water Association, 1<sup>st</sup> quarter, p. 1, 5.
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23. Mace, R., 2008, A year later, many changes in water issues—and rain! *Energy Report*, Fort Worth Business Press, March 3, p. 10.
22. Mace, R., 2008, TWDB adopts amended groundwater rules on desired future conditions: *Quality on Tap!* Texas Rural Water Association, March/April 2008, p. 28.
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20. Mace, R.E., 2007, Is the Trinity Aquifer going dry? *Energy Report: The Barnett Shale Edition*, Fort Worth Business Press, April 2, p. 7.
19. Mace, R.E., 2007, Legislation related to Groundwater Resources from the 80th Texas Legislature: *Austin Geological Society Bulletin*, v. 3, p. 34–36.
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17. Mace, R.E., 2006, Groundwater in Texas: *Journal of the Association of Water Board Directors—Texas*, Winter 2006, p. 30–31.
16. Mace, R.E., Petrossian, R., Bradley, R., and Mullican, W.F., III, 2006, A streetcar named desired future conditions—The new groundwater availability for Texas: *Confluence* (Texas Water Conservation Association), third quarter, p. 6.
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13. Mace, R.E., 2005, Trip summary of “Geology, frontier history, and selected wineries of the Hill Country appellation, Central Texas:” *Austin Geological Society Bulletin*, v. 1, p. 48–52.
12. Mace, R.E., and Ridgeway, C., 2005, Major goal achieved with major GAMs: *Ground Water*, v. 43, no. 2, p. 163.
11. Campbell, S., 2004, Central, West Texas water supplies depend on aquifers: *Ranch and Rural Living*, v. 85, no. 6, p.4–13; [article includes a large part of Mace and Angle (2004)].

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9. Mace, R.E., 2004, Aquifers of the Edwards Plateau: Texas Rural Water Association, Quality on Tap! May/June, p. 22–25.
8. Mace, R.E., 2003, Groundwater modeling is BIG in Texas! Hydrovisions, Groundwater Resources Association of California, v. 12, n. 4, p. 15.
7. Mace, R.E., 2003, Here a GAM, there a GAM, everywhere a GAM, GAM! Water for Texas, v. 13, no. 1, p. 2, 5.
6. Mace, R.E., 2002, The 'Springs of Texas' are Back! Austin Geological Society Newsletter, v. 36, no. 7, p. 6-8.
5. Mace, R.E., 2002, Geology? As a Career? Austin Geological Society Newsletter, v. 36, no. 6, p. 5
4. Mace, R.E., 2001, A collector of Holocene coprolites: The Austin Geological Society Newsletter, v. 34, no. 5, p. 3.
3. Mace, R.E., 2001, TWDB pioneers new Groundwater Availability Modeling program: Water for Texas, v. 11, no. 1, p. 3-4.
2. Mace, R.E., 2000, I love (hate) well surveys! The Austin Geological Society Newsletter, v. 34, no. 5, p. 3.
1. Mace, R.E., 1997, Plume studies and policy change: Civil Engineering, December, p. 32.

## 9. Social media

Fahrenheit 140 (podcast on climate and water)

10. Mace, R.E., Thompson, C., and Wingfield, S. [producer], 2024, Hurricane Beryl Enters the Chat—Climate Change is a Public Health Crisis with Dr. Rose Jones (Part 2): Fahrenheit 140 podcast, Anchor by Spotify, 38 minutes, posted on July 18 [\[link\]](#).
9. Mace, R.E., Thompson, C., and Wingfield, S. [producer], 2024, Climate Change is a Public Health Crisis with Dr. Rose Jones (Part 1): Fahrenheit 140 podcast, Anchor by Spotify, 48 minutes, posted on June 27 [\[link\]](#).
8. Mace, R.E., Thompson, C., and Wingfield, S. [producer], 2024, Mindfulness and place-based learning with Dr. Rob Dussler: Fahrenheit 140 podcast, Anchor by Spotify, Episode 007, 46 minutes, posted on May 30 [\[link\]](#).
7. Mace, R.E., Thompson, C., and Wingfield, S. [producer], 2024, Earth Day Special—Cats for Climate Change, Snake Farms, and Wildfires: Fahrenheit 140 podcast, Anchor by Spotify, Episode 006, 44 minutes, posted on April 22 [\[link\]](#).
6. Mace, R.E., and Thompson, C., 2022, Individual Action Can Make A BIG Difference in Tackling Climate Change (with Dr. Thomas Ptak): Fahrenheit 140 podcast, Anchor by Spotify, Episode 005, 72 minutes, posted on October 25 [\[link\]](#).
5. Mace, R.E., Thompson, C., and Oates, K., 2022, The Urban & Rural Land Climate Connection (with Kristy Oates): Fahrenheit 140 podcast, Anchor by Spotify, Episode 004, 69 minutes, posted on September 26 [\[link\]](#).
4. Mace, R.E., and Thompson, C., 2022, An Aspiring Climate Scientist (with Nicolas Tarasewicz): Fahrenheit 140 podcast, Anchor by Spotify, Episode 003, 87 minutes, posted on May 12 [\[link\]](#).

3. Mace, R.E., and Thompson, C., 2021, Put It Back (with Sue Hovorka): Fahrenheit 140 podcast, Anchor by Spotify, Episode 003, 69 minutes, posted on December 17 [\[link\]](#).
2. Mace, R.E., and Thompson, C., 2021, Texas Climate Predictions and Potty Training Cows (with John Nielson-Gammon): Fahrenheit 140 podcast, Anchor by Spotify, Episode 002, 69 minutes, posted on November 11 [\[link\]](#).
1. Mace, R.E., and Thompson, C., 2021, Setting the (Water) Table: Fahrenheit 140 podcast, Anchor by Spotify, Episode 001, 59 minutes, posted on July 23 [\[link\]](#).

Mace, R.E., 2023, What Can You Do About Climate Change? Hotter Than a Habanero, The Meadows Center for Water and the Environment, Texas State University, posted April 24 [\[link\]](#)

Mace, R.E., 2023, All Droughts Are Not Created Equal: Hotter Than a Habanero, The Meadows Center for Water and the Environment, Texas State University, posted April 24 [\[link\]](#)

Mace, R.E., 2022, Water and Power Need to Look Forward, Not Backward: Hotter Than a Habanero, posted July 11 [\[link\]](#)

Mace, R.E., 2022, OSCAR and CLARA—The Future of Climate-Water Resilience: Hotter Than a Habanero, posted June 15 [\[link\]](#)

Mace, R.E., 2022, How much groundwater is OK to take? So Secret, Occult, and Concealed blog, posted June 7 [\[link\]](#)

Mace, R.E., 2022, Groundwater snow at the Olympics? So Secret, Occult, and Concealed blog, posted January 25 [\[link\]](#)

Mace, R.E., 2021, Mississippi v. Tennessee: So Secret, Occult, and Concealed blog, posted October 11 [\[link\]](#)

Mace, R.E., 2021, Imperial forces: So Secret, Occult, and Concealed blog, posted February 15 [\[link\]](#)

Mace, R.E., 2021, So you wanna sample Comanche Springs? So Secret, Occult, and Concealed blog, posted February 9 [\[link\]](#)

Mace, R.E., 2020, Austin in 100 years: posted on August 17, 2020, at the blog for The Cynthia and George Mitchell Foundation [\[link\]](#)

Mace, R.E., 2020, All droughts are not created equal: posted on August 5, 2020, at the blog for The Cynthia and George Mitchell Foundation [\[link\]](#)

Mace, R.E., 2020, Being FAIR during a pandemic: posted on June 8, 2020, at the blog for The Cynthia and George Mitchell Foundation [\[link\]](#)

Water Conservation, Mothering Earth Podcast, posted October 31, 2020 [\[link\]](#)

Comanche Springs Re-awakening: talk+water (with Texas+water), podcast, with Sharlene Leurig, January 22, 2020 [\[link\]](#)

So Secret, Occult, and Concealed: The Story of Groundwater in Texas (a blog dedicated to groundwater history, issues, and science in Texas; <https://sosecretoccultandconcealed.com/>) 2017—present; has an affiliated facebook page.

You Have Water Mail (a photo blog dedicated to water post cards with an emphasis on artesian water well post cards of Texas; <http://youhavewatermail.blogspot.com/>) 2010—present.

Austin Cubed (a blog initially focused on building a Modern water and energy efficient house, now more broadly focused on architecture and water and energy efficiency; <http://austincubed.blogspot.com/>) 2010—present.



@MaceatMeadows; twitter account dedicated to sharing information about water (2015—present [I started this account at the Texas Water Development Board as @TWDB\_DrMace; the agency allowed me to rename the account to its present name)

Dudes n Beer podcast, 2018, “Saving our most precious resource with water policy officer Robert Mace” guest, May 22. [link]

## 9. Albums

pillo... (Mace, R.E.), 2001, self-titled: whirlingpool music, CD-R.

quaquaversal (Mace, R.E., Thurman, S., and Coulbourn, D.E.), 2001, ....., whirlingpool music, CD-R.

flyover: (Mace, R.E., Jones, J., and Coulbourn, D.E.), 2000, self-titled: whirlingpool music, CD-R.

various, 1999, bloo (a.day.in.the.life.of.austin.electronica): whirlingpool music, compilation CD.

quaquaversal (Mace, R.E., Thurman, S., and Coulbourn, D.E.), 1998, prfrmnc: whirlingpool music, CD-R.

quaquaversal (Mace, R.E., and Thurman, S.), 1997, 63c: *in One*—Texas Electronica, Face Music, compilation CD.

quaquaversal (Mace, R.E., and Thurman, S.), 1997, self-titled: whirlingpool music, CD.

memento mori (Mace, R.E.), 1992, underneath: whirlingpool music, CD-R.

## B. Works not in Print

### 1. Invited Talks, Lectures, and Presentations [estimated number of attendees]

xxx. Mace, R.E., 2024, [Austin’s drought strategies]: ASCE EWRI Workshop, November 1, Austin, Texas.

xxx. Sarmiento, E., and Mace, R.E., 2024, The geographies of Texas music—A playlist (and performance): Southwest Division of the American Association of Geographers, October 6-8, San Marcos, Texas.

xxx. Mace, R.E., 2024, TBD: Hill Country Master Naturalists, October 1.

xxx. Mace, R.E., 2024, The aquifers of the San Marcos region: LifeLong Learning Organization of San Marcos, San Marcos, Texas, September 30.

xxx. Mace, R.E., 2024, TBD: Barton Springs University, Austin, Texas, September 17.

xxx. Mace, R.E., 2024, TBD: Texas Groundwater Summit, August 20-21-22.

xxx. Mace, R.E., 2024, Rainwater harvesting: Texas Parks and Wildlife Department, virtual, August 14

xxx. Mace, R.E., 2024, Groundwater sustainability: Agriculture Water Sustainability Summit, Lubbock, Texas, August 7-9.

xxx. Mace, R.E., and Potts, R., 2024, [water conservation policy on soil impacts and agriculture]: [via Ken Mix], August 5-6, San Marcos, Texas.

xxx. Mace, R.E., 2024, Groundwater: Environmental Superconference, Austin, Texas, August 1-2

476. Mace, R.E., 2024, The pressures of drought and development across ecoregions: Private Lands Summit hosted by the Texas Wildlife Association, San Antonio, Texas, July 11 [170].
475. Mace, R.E., 2024, Reliable rainwater is just a roof away! Friends of the Little Blanco, Blanco, Texas, June 22. [25]
474. Mace, R.E., 2024, There's only OneWater: Association of Water Board Directors, Fort Worth, Texas, June 14 [1,200]
473. Mace, R.E., 2024, Revisiting Gunnar Brune's "Major and Historical Springs of Texas"—Are Springs Drying Up? [keynote]: American Ground Water Trust, June 11-12; Austin, Texas. [50]
472. Mace, R.E., 2024, Water in Hays County: Hays County Texas Master Naturalists, May 21, San Marcos, Texas [40].
471. Mace, R.E., 2024, Climate Change and the Hill Country: presented to the Hill Country Leadership Institute hosted by the Hill Country Alliance, Kickapoo Springs Ranch, Rocksprings, Texas, May 17. [25]
470. Mace, R.E., 2024, Reliable Rainwater is Just a Roof Away: presented to the Hill Country Leadership Institute hosted by the Hill Country Alliance, Kickapoo Springs Ranch, Rocksprings, Texas, May 16. [25]
469. Mace, R.E., 2024, Revisiting Gunnar Brune's "Major and Historical Springs of Texas:" presented to the Hill Country Leadership Institute hosted by the Hill Country Alliance, Kickapoo Springs Ranch, Rocksprings, Texas, May 16. [25]
468. Mace, R.E., 2024, Groundwater Sustainability—When a Dripping Spring is Not Enough...: presented at Community Insights: Ideas Worth Sharing, Dripping Springs, Texas, May 9. [40]
467. Mace, R.E., 2024, Groundwater in Texas (and the near future): presented to the Alamo Master Naturalists, San Marcos, Texas, May 5. [40]
466. Lopez, R., and Mace, R.E., 2024, Pines, Poop, and Pheasants—Thoughts for Strategic Thinking: presented to the U.S. Roundtable for Sustainable Beef, General Assembly Water Presentation; St Louis, Missouri; May 2. [100]
465. Mace, R.E., 2024, Climate considerations for this region and recent research about springs in Texas: Hamilton Pool Management Zone Stakeholder Group hosted by the Travis County Groundwater Conservation District; Dripping Springs, Texas; April 29. [20]
465. Mace, R.E., 2024, Revisiting Gunnar Brune's "Major and Historical Springs of Texas" (with a side of fractals): presented to the TWDB Virtual Brown Bag hosted by the Texas Water Development Board, Austin, Texas (presented remotely), April 26. [70]
464. Mace, R.E., 2024, Water in the Texas Hill Country—Cool, Clear, (but not necessarily) Calm: presented to the Sustainability Committee of The Texas Water Company, San Antonio, Texas (presented remotely), April 23. [20].
463. Mace, R.E., 2024, In the Future, There Will Only Be OneWater: presented to the Houston OneWater Cohort, City of Houston, Houston, Texas (presented remotely), April 15. [20]
462. Mace, R.E., 2024, Hydrogeology overview—From the highest mountains to the lowest flows: presented at Groundwater Symposium: A Deep Dive into Local Aquifers hosted by Texas State Office of Sustainability, Texas State Department of Geography and Environmental Studies, and the Barton Springs Edwards Aquifer Conservation District, San Marcos, Texas; April 2. [150]

461. Mace, R.E., 2024, Revisiting Gunnar Brune’s “Major and Historical Springs of Texas” Implications for Groundwater Resources: presented to the Austin Geological Society, Austin, Texas, April 1 [70]
460. Mace, R.E., 2024, Revisiting Gunnar Brune’s “Major and Historical Springs of Texas” Implications for Groundwater Resources: presented to The Hill Country Conservation Network, March 28. [50]
459. Mace, R.E., 2024, Water sustainability in Central Texas: Buda Sustainability Commission, March 7. [8]
458. Mace, R.E., 2024, Water in Texas—A sustainable future? presented to the Land Use Policy Collaborative hosted by the Texas Real Estate Advocacy & Defense Coalition (TREAD), virtual, February 27 [15]
457. Mace, R.E., 2024, Groundwater (with an Emphasis on Central Texas): presented to the Capital Area Master Naturalists, San Marcos, Texas, February 24. [50]
456. Mace, R.E., 2024, In the Future, There Will Only Be One Water: presented at the Gulf Coast Water Conservation Symposium, Houston, Texas, February 22. [300]
455. Mace, R.E., 2024, We need real intelligence as well as artificial intelligence to solve our water problems : Society of American Military Engineers Infrastructure Forum, Arlington, Texas, February 9. [350]
454. Mace, R.E., 2024, Interlude of a Hydrologist, DJ, and Theremin: presented at Water—A Deep Dive on Texas' Most Precious Natural Resource, hosted by the Texas Lyceum, Texarkana, Texas, February 2. [300]
453. Mace, R.E., and Briones, R.O., 2024, Reliable rainwater is just a roof away: presented at the Meadows Blue Bag, hosted by The Meadows Center for Water and the Environment, via the interwebs, January 30 [8 + recorded for later viewing].
452. Urbanczyk, K., and Mace, R.E., 2024, A conversation about hydrology and water systems in the Chihuahuan Desert region: presented at Water in the Desert—A Conference About Water in the Chihuahuan Desert of West Texas, hosted by the Borderlands Research Institute, Alpine, Texas, January 18. [260]
451. Urbanczyk, K., Bennett, J., and Mace, R.E., 2024, Examining data gaps—Setting research objectives with experts: Water in the Desert—A Conference About Water in the Chihuahuan Desert of West Texas, Borderlands Research Institute, Alpine, Texas, January 17. [140]
450. Mace, R.E., 2023, How bad has the current drought been? Reports from the field on water resources: Texas Water Research Network, Austin, Texas, December 8. [50]
449. Mace, R.E., 2023, Understanding Environmental Considerations and Vulnerabilities for a Stronger Region: Central Texas Catalyst Summit, Austin, Texas, December 4. [50]
448. Mace, R.E., 2023, A streetcar named desired future conditions: presented to the Rulemaking Stakeholder Advisory Committee hosted by the Lost Pines Groundwater Conservation District, Bastrop, Texas, October 25. [15]
447. Mace, R.E., 2023, (re)Used and (hopefully not) Abused [invited keynote]: Smart Water Keynote, Digital 360 Summit, San Marcos, Texas, September 27. [60]
446. Mace, R.E., and Briones, R., 2023, The Firm Yield of (and Impacts of Climate Change on) Rainwater Harvesting in Texas: 2023 ARCOSA Annual Conference hosted by the American Rainwater Catchment Systems Association; San Antonio, Texas; September 26. [50]

445. Mace, R.E., 2023, (re)Used and (hopefully not) Abused [invited keynote]: presented at 2023 WaterReuse Texas Conference, WaterReuse Association Texas, Irving, Texas, September 21. [100]
444. Mace, R.E., 2023, Water issues in Hays County: presented to the Dripping Springs Republicans, Dripping Springs, Texas, September 10. [70]
443. Mace, R.E., 2023, Climate-water interconnection—What it is & what it means for our future [invited]: presented to Lutherans Restoring Creation—Gulf Coast, August 27, 2023. [66+recording available]
442. Mace, R.E., 2023, A history of Texas water and water policy [invited keynote]: presented at Water Summit 2023 hosted by the Office of State Representative Glenn Rogers, Mineral Wells, August 24, 2023. [300]
441. Mace, R.E., 2023, Water in Texas—Yesterday, today, and tomorrow [invited]: presented at Texas Waters Webinar hosted by Texas Parks & Wildlife Department, August 9, 2023. [70]
440. Mace, R.E., 2023, State of Water [invited]: 2023 Annual Conference, Texas Public Power Association, July 25, 2023; Austin, Texas. [300]
439. Mace, R.E., 2023, Sustainability signaling in Aquifers: 2023 UCOWR/NIWR Annual Water Resources Conference, hosted by the University Council on Water Research and the National Institute on Water Resources; Fort Collins, Colorado; June 15, 2023. [30]
438. Mace, R.E., 2023, Water in the 22nd Century—What We Can Learn From Austin's 100-Year Water Plan [invited]: presented to the 30th Texas Groundwater Program: Everything Aquifers and Groundwater Management—Legal, Policy, Management, Scientific, Engineering, and Technical Issues about Texas' Aquifers hosted by the American Groundwater Trust; Austin, Texas; June 7, 2023. [200]
437. Mace, R.E., 2023, Climate change and water in central Texas [invited]: presented to the Metropolitan Breakfast Club; Austin, Texas; May 24, 2023. [50]
436. Mace, R.E., 2023, The Relationship Between Land and Water—Conserving in Comal County [invited]: presented at the CCA Community Program, hosted by the Comal County Conservation Alliance; New Braunfels, Texas; May 16, 2023. [85]
435. Mace, R.E., 2023, The Future of Water in Austin and the World! [invited] presented at the 20<sup>th</sup> Central Texas Infrastructure Design + Construction Symposium hosted by the Austin Contractors and Engineers Association; Austin, Texas; May 11, 2023. [100]
434. Mace, R.E., 2023, Managed Aquifer Recharge is MARvelous! [invited keynote], presented at Managed Aquifer Recharge—Unleashing Resiliency, Protecting Groundwater Quality, hosted by The Groundwater Association; San Antonio; April 24, 2023. [150]
433. Mace, R.E., 2023, More Too Little Water? Water Supply Considerations in Land Use [invited]: presented at the 27th Annual Land Use Conference, hosted by UT Law CLE; Austin, Texas; April 21, 2023. [75]
432. Mace, R.E., 2023, Plan for the worst, hope for the best, and expect to be surprised [invited]: presented to the Hill Country Leadership Institute, hosted by the Hill Country Alliance; San Marcos, Texas; April 20, 2023; [20]
431. Mace, R.E., 2023, Achieving sustainability in groundwater aquifers: management, administration, and fallowing—TEXAS [invited]: presented at the 21st Annual Conference, Law of the Rio Grande—Opportunities for

- Collaboration on a Shared & Valuable Resource: hosted by the Water Law Institute, CLE International; Santa Fe, New Mexico; April 4, 2023. [100]
430. Mace, R.E., 2023, Revisiting Gunnar Brune's "Major and Historical Springs of Texas:" Geoscience Seminar hosted by the Texas Ground Water Association; San Marcos, Texas; March 31, 2023. [50]
  429. Mace, R.E., 2023, Water in Texas: presented at the 102nd Agricultural & Rural Affairs Conference hosted by the Texas Bankers Association; Fort Worth, Texas; March 30, 2023 [75].
  428. Mace, R.E., 2023, Climate Change and Water in Texas: presented to the Capital Area Master Naturalists, San Marcos, Texas, February 25.
  427. Mace, R.E., 2023, Seeing Water Clearly: Ten Across Initiative hosted by Arizona State University, S Houston, Texas, January 10
  426. Mace, R.E., 2022, Revisiting Gunnar Brune's "Major and Historical Springs of Texas:" presented at the Texas Commission on Environmental Quality's Geoscience Brown Bag, Austin, Texas (via the interwebs), December 13 [50]
  425. Lopez, R., and Mace, R.E., 2022, Land trends and water: presented for a TREAD Talk hosted by the Texas Real Estate Advocacy and Defense Coalition, virtual, November 14 [35]
  424. Mace, R.E., 2022, The future of water—Drought, climate, and onewater: presented at the Lende Lecture Series hosted by the Cibolo Center for Conservation, Boerne, Texas; October 28 [70]
  423. Mace, R.E., 2022, Welcome to Texas! presented at the Annual Meeting of the National Habitat Conservation Plan Coalition; Austin, Texas; October 25 [200]
  422. Mace, R.E., 2022, Revisiting Gunnar Brune's "Springs of Texas": presented at the 2022 Texas Groundwater Invertebrate Forum hosted by the Edwards Aquifer Research & Data Center, San Marcos, Texas; October 21 [60]
  421. Mace, R.E., 2022, Managed aquifer recharge in Texas: presented at Storing the Future—Managed Aquifer Recharge Seeps In, hosted by The American Groundwater Trust, via the interwebs; October 12 [150]
  420. Mace, R.E., 2022, Water—Dynamics, Trends, and Innovation: presented at the Texas State Innovation Series, San Marcos, Texas, October 11 [30]
  419. Mace, R.E., 2022, Conserving is preserving: presented at The Workshop on Transformational Water Conservation Solutions for El Paso, hosted by El Paso Water Utilities; El Paso, Texas; September 30 [30]
  418. Mace, R.E., 2022, Beyond a seasonal drought—Climate information for water resources: presented to the Texas Water Data Initiative, Texas Water Development Board, virtual, September 7 [35]
  417. Mace, R.E., 2022, Water Resilience: presented for The Big Four—Major Global Environmental Issues: Their Causes, Effects, and Solutions hosted by Christ the King Evangelical Lutheran Church, Houston, Texas [via the interwebs], August 16 [40].
  416. Mace, R.E., 2022, The Future of Water: Public Drinking Water Conference hosted by the Texas Commission on Environmental Quality, Austin, Texas, August 9, 2022 [300]
  415. Mace, R.E., 2022, Groundwater, Texas, and Sustainability: Southern Family Farmers and Food Systems Conference hosted by the Farm & Ranch Freedom Alliance, August 8, 2022 [30].
  414. Mace, R.E., 2022, It's so hot the cows are producing evaporated milk—A drought update for the Hill Country: presented to the Hill Country Conservation Network Water Team [via the interwebs], July 21, 2022 [20].

413. Mace, R.E., 2022, Let's Rustle Up Some Texas Groundwater! (with an occasional reference on National Wildlife Refuges): presented to U.S. Fish and Wildlife Service, Albuquerque Office, June 30, 2022 [15].
412. Mace, R.E., 2022, How many springs in Texas have gone dry since 1980? Why and where and should we care? presented at the Texas Groundwater Conference hosted by the American Groundwater Trust, Austin, Texas, June 2, 2022 [80].
411. Mace, R.E., 2022, How long will our aquifers last? Sunday Evening Conservations on Creation, hosted by Christ the King Lutheran Church, Houston, Texas [via the interwebs], May 22 [15+posted].
410. Mace, R.E., 2022, Groundwater in Texas—Ludicrous mode! presented at the Groundwater Roundtable hosted by The Cynthia and George Mitchell Foundation and Environmental Defense Fund, San Antonio, Texas, May 17 [15]
409. Mace, R.E., 2022, Groundwater sustainability and the Carrizo-Wilcox: presented to the groundwater conservation districts of Groundwater Management Area 12, Milano, Texas, April 22 [20].
408. Mace, R.E., 2022, State of water in Texas: presented to the Central Texas Water Coalition's Water Roundtable, Buchanan Dam, Texas, April 21 [30].
407. Mace, R.E., 2022, The relationship between surface water and groundwater: TREAD Talk hosted by the Texas Real Estate Advocacy & Defense Coalition, via the interwebs, April 19 [30]
406. Mace, R.E., 2022, Groundwater sustainability: presented to the Desired Future Conditions Workgroup for the Post Oak Savannah Groundwater Conservation District, Milano, Texas, April 12 [15].
405. Mace, R.E., 2022, Bringing back Comanche Springs—Historical analysis to inform contemporary environmental analysis: presented at the virtual panel on The History of Central-West Texas Water Conservation: From Natural Springs to the Whooping Crane, American Society for Environmental History, ASEH 2022 Conference April 9, 2022; Eugene, Oregon.
404. Mace, R.E., 2022, Groundwater and surface water in Texas: presented to The Capital Area Master Naturalists, Austin, Texas, March 26. [50]
403. Mace, R.E., 2022, Hays County—Intersection of water and people: presented to the Hays County Master Naturalist Chapter, Dripping Springs, Texas, March 24. [50]
402. Lopez, R., and Mace, R.E., 2022, Rural land trends and what they mean for groundwater: presented at the 6th Biennial Water Conservation Symposium hosted by the Panhandle Groundwater Conservation District, Amarillo, Texas, February 16 [100].
401. Mace, R.E., 2022, The Devils is in the Details: Hydrology of the Devils River: lunch and learn webinar for The Devils River Conservancy, February 24<sup>th</sup> [30]
400. Mace, R.E., 2022, Bringing back Comanche Springs—Historical analysis to inform contemporary environmental analysis: American Society for Environmental History Annual Conference, Oregon (virtual), March 24<sup>th</sup>.
399. Mace, R.E., 2022, Five gallons in a ten-gallon hat—The (un)sustainable development of groundwater in Texas: keynote speech for the Geography and Environmental Studies Student Research Symposium, San Marcos, Texas, February 11 [80].
398. Mace, R.E., 2022, Revisiting the springs of Texas: Blue Bag for The Meadows Center for Water and the Environment, Texas State University, January 10 [20].
397. Mace, R.E., 2022, Texas: webinar for the National Ground Water Association's Hydrogeology of States series, virtual, January 13 [50].

396. Mace, R.E., 2021, Water! radio show guest, “Into the Gray” hosted by Jeremy Garrett, KZSM, San Marcos, Texas, December 17.
395. Mace, R.E., 2021, Groundwater sustainability—How long is forever? Texas Commission on Environmental Quality Brown Bag, Austin, Texas (virtual), December 7th [40]
394. Mace, R.E., 2021, It’s all OneWater: invited presentation for the 2021 Environmental Excellence Awards Program, City of Fort Worth Water Department, Fort Worth, Texas, November 3 [100].
393. Lopez, R., and Mace, R.E., 2021, Rural land trends and what they mean for groundwater: presented at the Bell County Water Symposium, hosted by the Clearwater Groundwater Conservation District, Belton, Texas, November 17 [100].
392. Mace, R.E., 2021, The future of water in Texas: presented at the 100th Annual Agriculture & Rural Affairs Conference, Texas Bankers Association, Austin, Texas, September 24 [30].
391. Mace, R.E., 2021, “Safe yield, sustainability, and science” keynote to Association of Environmental & Engineering Geologists 64th Annual Meeting; San Antonio, Texas; September 22.
390. Lopez, R., and Mace, R.E., 2021, Rural land trends and what they mean for groundwater: presented at the 2021 Texas Groundwater Summit, hosted by the Texas Alliance of Groundwater Conservation Districts, San Antonio, Texas, August 31. [100]
389. Mace, R.E., 2021, “Safe yield, sustainability, and science” presented to INTERA; Austin, Texas; August 27. [40]
388. Mace, R.E., 2021, Understanding OUR water: presented at an event hosted by the City of Blanco and the Hill Country Alliance; Blanco, Texas; August 19. [70]
387. Mace, R.E., 2021, Are you sure about that? An introduction to model uncertainty: presented at the Milam and Burleson Counties Groundwater Summit, hosted by the Post Oak Savannah Groundwater Conservation District, August 12, 2021, Caldwell, Texas [140]
386. Mace, R.E., 2021, Legislative update: presented at the Texas Water Data Initiative Meeting, hosted by the Texas Water Development Board, June 15 [30].
385. Mace, R.E., 2021, In the future there will only be One Water: presented to the Association of Water Board Directors, June 19, 2021, San Antonio, Texas [300].
384. Mace, R.E., 2021, Will there be enough water for Central Texas? presented to the Austin Area Research Organization, May 25, 2021. [12]
383. Votteler, T.H., and Mace, R.E., 2021, The Legislature + Water: presented to the Texas Water Research Network virtual spring meeting, May 19<sup>th</sup>, 2021; virtual. [100]
382. Mace, R.E., 2021, The Future of Aquifer Storage and Recovery in Texas: presented to at the ASR for Texas! 2021 Seminar; May 5, 2021; virtual. [75]
381. Mace, R.E., 2021, Innovative water is good water: presented at the Water Innovation Forum hosted by the West Houston Association, April 29, 2021, virtual [70]
380. “*Oh no! I’ve got regulators in my reuse!*” presented virtually to Annual Central Texas Water Efficiency Network Symposium—Proactive water conservation programs: In it for the long haul, April 21, 2021. [140]

379. “*Groundwater and Surface Water in Texas*” presentation to the CAMN 2018 Class, Central Texas Master Naturalist, San Marcos, Texas, April 10, 2021. [25]
378. “*Up from the depths—Riparian groundwater in urban settings*” presented at the Urban Riparian Symposium, February 12, 2021. [25]
377. “*Bringing Back Comanche Springs*” The Meadows Center for Water and the Environment and Texas Water Trade joint briefing to funders and friends of Comanche Springs (with Sharlene Leurig), January 28, 2021; virtual [~40]
376. “*Bringing Back Comanche Springs*” presented to the Fort Stockton City Council and the Pecos County Commissioners Court, January 25, 2021; Fort Stockton, Texas [40+facebook live]
375. “*Sustainability in Barton Springs and the World*” presented at Barton Springs University Day hosted by the Save Our Springs Alliance, October 27, 2020 [livestream]
374. “*The Hydrohistory of Comanche Springs in Fort Stockton, Texas (and How It Changes Our Understanding of the Hydrogeology)*” presented at the Texas Water Development Board Brown Bag, October 23, 2020. [30]
373. “*If Water Could Talk: The Hydrohistory of Comanche Springs (and How They Could Return)*” virtually presented to the annual meeting of the American Society of Agricultural and Biological Engineers—Texas Section, October 8, 2020 [45]
372. “*The Meadows Center and the Blanco River Aquifer Assessment Tool*” presented at the Hill Country Leadership Summit 2020: The Future of Conservation in the Texas Hill Country hosted by the Hill Country Alliance, September 23, 2020 [120]
371. “*If Water Could Talk: The History of Comanche Springs*” presented virtually to the Fort Stockton Rotary Club. September 17, 2020 [30]
370. “*The Past, Present, and Future of Comanche Springs*” presented virtually to the 2020 Virtual Texas Groundwater Summit hosted by the Texas Alliance of Groundwater Districts, September 3, 2020. [120]
369. “*Understanding the Regional Water Planning Framework: Approaches, Strategies, and Outcomes*” presented at the Indiana Water Summit, White River Alliance, August 12, 2020 [keynote; 140].
368. “*Bringing Back Comanche Springs*” presented at the Texas Groundwater Conference, American Ground Water Trust, August 13, 2020 [100].
367. “*One Water Regulatory Impediments in Texas*” webinar presented to the Texas Water Conservation Association, July 15, 2020 [130].
366. “*The history, science, and economics of bringing back Comanche Springs.*” presented to the Texas Water Conservation Association Virtual Mid-Year Conference, June 19, 2020, with Sharlene Leurig [138]
365. “*The science, policy, and history of bringing back Comanche Springs*” presented at the Bureau of Economic Geology Seminar, The University of Texas at Austin, Austin, Texas (via Zoom), April 17, 2020 [60]
364. “*Groundwater management in Texas: Implications for aquifer invertebrates.*” presented at the 2019 Texas Groundwater Invertebrate Forum; San Marcos, Texas; November 15, 2019 [60]
363. “*Whiskey’s for drinkin’, water’s for fightin’: The tumultuous history and collaborative future of water management in Texas*” presented at the 19<sup>th</sup> Annual Bell County Water Symposium “Collaborative Discussion and Planning Water Needs for the Future”; Killeen, Texas; November 6, 2019; [150]



362. *“Opening comments on climate change in Texas”* presented to the Texas Environmental Grantmakers Group, Fall Meeting, “The Pending Effects of Climate Change on Texas and the Southwest,” San Marcos, Texas; November 1, 2019 [40].
361. *“To flow or not to flow: The story of Comanche Springs.”* presented at a community meeting in Fort Stockton, Texas; October 29, 2019 [30]
360. *“You may say I’m a dreamer: A path to sustainability for the Hill Country’s aquifers, springs, rivers, and streams.”* presented at the 16<sup>th</sup> Annual Pedernales Wildlife Management Coop Speaker’s Program; Johnson City, Texas; October 19, 2019 [100].
359. *“Where will Austin’s water come from in 100 years?”* presented to the South Lamar Neighborhood Association; Austin, Texas; October 17, 2019 [15]
358. *“Water Conservation: Innovation for sustainable development”* presented at Texas Water Law: Hot Topics in Texas Legislation & Regulations; hosted by the Water Law Institute, CLE International; San Antonio, Texas; September 19, 2019; [120]
357. *“Going with the flow: Facilitating groundwater in Texas.”* webinar for the California State Water Board; September 13, 2019; [30]
356. *“Here a plan, there a plan, everywhere a plan plan: How Texas taps into local expertise to meet future water needs”* presented at Water Summit 2019; hosted by The White River Alliance; Indianapolis, Indiana; August 15, 2019 [300].
355. *“Surface water-groundwater interactions in Texas.”* presented at the Milam and Burleson Counties 2019 Groundwater Summit; sponsored by the Post Oak Savannah Groundwater Conservation District; Caldwell, Texas; August 14, 2019 [300]
354. *“Ag & water in Texas: Challenges and opportunities.”* presented at the Farm & Food Leadership Conference; sponsored by the Farm and Ranch Freedom Alliance; San Marcos, Texas; August 13, 2019 [50]
353. *“Water & Texas”* presented to the Ugandan Delegation on Water; San Marcos, Texas; July 25, 2019 [15]
352. *“Water, Texas. And Policy”* Lunch Lecture presented to the Texas Rivers Expedition; San Marcos, Texas; July 19, 2019 [20]
351. *“Water in (and on) Texas”* presented to the Foreign Press Centers’ International Reporting Tour, U.S. Department of State-Bureau of Global Public Affairs; San Marcos, Texas; July 19, 2019 [30]
350. *“Texas needs water! (and it needs your help!)”* keynote presented to the Texas 4-H Water Ambassadors Program; Austin, Texas; July 13, 2019 [120]
349. *“Serenity: A brief history of toilets (and toilet water)”* presented at the 16<sup>th</sup> Annual CASE Conference hosted by the Capital Area Suburban Exchange; South Padre, Texas; June 22, 2019 [110]
348. *“Spousal experiments in water conservation—How to reduce water use in your home”* presented at the Mid-Year Conference, Association of Water Board Directors; Fort Worth, Texas; June 14, 2019 [250]
347. *“Surface water-groundwater interaction issues in Texas”* presented at the Texas Aquifer Conference hosted by The American Groundwater Trust; Austin, Texas; June 13, 2019 [130]
346. *“Where will our water come from over the next 20 (to 100) years?”* presented at the EF Impact Awards hosted by the Entrepreneurs Foundation of Central Texas; Austin, Texas; May 20, 2019 [80]

345. *“How water conservation will save the dry day (and how you can help!)”* presented at Sunday Evening Conversations on Creation hosted by the Christ the King Evangelical Lutheran Church; April 28, 2019; Houston, Texas (webinar) [30]
344. *“From Kerrwaters to Tidewaters”* presented at the Water & Wildflower Luncheon; sponsored by the Riverside Nature Center; Kerrville, Texas; April 23, 2019 [60]
343. *“Personal Journey and Affirmation”* presented at the 2019 Natural Leaders Summit hosted by The Meadows Center for Water and the Environment; San Marcos, Texas; March 31, 2019 [30]
342. *“History of San Marcos Springs”* presented at the revealing of a historical marker on San Marcos River hosted by the Comal Springs Chapter of the Colonial Dames, San Marcos, Texas; March 26, 2019 [35]
341. *“Frac Sand Mining and Its Potential Effects on Groundwater of the Monahans-Mescalero Sand Ecosystem, Permian Basin”* presented at Groundwater Oil and Gas Development: Improved Management Practices for Groundwater Protection and Water Supply hosted by the National Groundwater Association; San Antonio, Texas; March 4, 2019 [80]
340. *“The Devils Is in the Details: Groundwater and Groundwater Management in Val Verde County, Texas”* presented to the Devils River Association; Rocker U Ranch, Comstock, Texas; February 23, 2019. [55]
339. *“So Secret, Occult, and Concealed: The History of Groundwater Law in Texas”* (invited) presented at the 20<sup>th</sup> Annual Changing Face of Water Law, hosted by TexasBarCLE; San Antonio, Texas; February 21, 2019 [110]
338. *“Groundwater and Surface Water in Texas”* presented to the Central Austin Master Naturalists Class of 2019; San Marcos, Texas; February 9, 2019 [40]
337. *“Spousal Experiments in Water Conservation”* (invited) presented at the AWBD Mid-Winter Conference hosted by the Association of Water Board Directors; Austin, Texas; January 26, 2019 [500]
336. *“Oh No! You’ve Got Science in My Policy!”* presented at the Meadows Center Blue Bag, Texas State University; January 7, 2019 [15]
335. *“Opportunities for Aquifer Storage and Recovery in Texas”* (invited) presented on the Colorado River VIP Tour 2018, Colorado River Alliance; San Angelo, Texas; November 15, 2018 [50]
334. *“If You Don’t Like This Texas Weather Presentation, Just Wait a Few Minutes: Short-, Medium-, and Long-Term Trends for Climate in Texas”* (invited) presented at the 78<sup>th</sup> Annual Meeting of District Directors, Texas State Soil & Water Conservation Board; Fort Worth, Texas, October 30, 2018 [50]
333. *“Texas Conserves What It Gets”* (invited) presented at Texas Water Law: Innovation in Water Conservation & Management, CLE International: Water Law Institute; San Antonio, Texas; October 22, 2018 [50]
332. *“Better Shed Than Dead: Using Watersheds to Increase Water Supply and Quality and Decrease Flood Risk”* (invited) presented at the 2018 Upper Trinity Symposium; Lake Dallas, Texas; September 21, 2018 [70]
331. *“Where will Austin’s water come over the next 100 years?”* (invited) presented to the Austin Regional Group of the Sierra Club; Austin, Texas; September 11, 2018 [80]
330. *“Where will Austin’s water come from in 100 years?”* (invited) presented to the Save Barton Creek Association; Austin, Texas; September 10, 2018 [30]

329. “*Water in Texas*” (invited) presented with Andrew Sansom to the staff of the Senate Committee on Water, Agriculture, and Rural Affairs; Austin, Texas; September 6, 2018 [15]
328. “*Bringing back Comanche Springs*” (invited) presented with Sharlene Leurig to the Fort Stockton Convention & Visitors Bureau, Fort Stockton, Texas, August 22, 2018 [10]
327. “*Birth of the Carrizo-Wilcox*” (invited) presented at the Milam and Burleson Counties Groundwater Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas, August 15, 2018 [300]
326. “*Groundwater 101 for southwestern Travis County*” (invited) presented to the board of the Southwestern Travis County Groundwater Conservation District, Bee Cave, Texas, August 8, 2018 [20]
325. “*del rio y del acuífero*” (invited) presented at the Whitehead Memorial Museum and hosted by the Devils River Conservancy, Del Rio, Texas, July 21, 2018 [40+filmed]
324. “*Embracing the Brazos*” (invited) presented at the Brazos Valley Museum of Natural History, Bryan, Texas, June 29, 2018 [150]
323. “*To flow or not to flow: The story of Comanche Springs (and what it means today)*” (invited) presented at the Texas Aquifer Conference held by the American Ground Water Trust; Austin, Texas; June 7, 2018. [200]
322. “*The water at night is innovative and bright: Deep in the heart of Texas*” (invited) presented to Colonial Classics at the Colonial Hills United Methodist Church, San Antonio, Texas; June 4, 2018. [50]
321. “*Groundwater and surface water in Texas*” presented to Texas Waters Webinar, Texas Parks and Wildlife Department, May 29, 2018. [100]
320. “*Keeping heads above headwaters*” presented to The Headwaters Alliance, San Antonio, Texas, May 7, 2018 [50]
319. “*Spousal experiments in water conservation*” (invited) presented at the Public Affairs Forum of the First Unitarian Universalist Church of Austin, Austin, Texas, May 6, 2018 [12]
318. “*The water at night is innovative and bright: Deep in the heart of Texas*” (invited) presented at the 2018 Next Generation Water Summit, Santa Fe, New Mexico; April 30, 2018. [30]
317. “*From the Great American Desert to the Great American Breadbasket: Managing Groundwater in the High Plains Aquifer*” (invited) keynote speaker, The Ogallala Aquifer Summit, Garden City, Kansas, April 9, 2018. [300]
316. “*Texas conserves what it gets*” (invited) presented at the 18<sup>th</sup> Law of the Rio Grande: Protecting and Enhancing Our Water Resources hosted by the Water Law Institute, CLE International, Santa Fe, New Mexico, April 5, 2018. [150]
315. “*The Paradox of Groundwater Availability*” (invited) presentation at the 74<sup>th</sup> Annual Convention of the Texas Water Conservation Association, Bastrop, Texas, March 8, 2018. [300]
314. “*Groundwater and Surface Water in Texas*” presentation to the CAMN 2018 Class, Central Texas Master Naturalist, San Marcos, Texas, February 10, 2018. [35]
313. “*The Future of Salinity and Water in Texas (and the Southwest?)*” (invited) opening day keynote at the 2018 Salinity Summit, Multi-State Salinity Coalition, Las Vegas, Nevada, February 8, 2018. [100]
312. “*We’ll know the worth of water when the wells stop flowing: How the great artesian depletion taught Texas to conserve water*” (invited) presented at the

Central Texas Water Conservation Symposium—Future-focused Water Conservation: Past to Present: What’s Next on the Horizon? hosted by the Central Texas Water Efficiency Network, Austin, Texas, February 1, 2018. [170]

311. “*What Comes Around Goes Around: Water Reuse in Texas*” (invited) presented as part of the opening plenary at the American Water Works Association International Symposium on Potable Reuse, Austin, Texas; January 22, 2018. [200]
310. “*Climate and Climate Resilient Water Supplies for Central Texas*” (invited) presented to the Natural Resources Committee of the New Braunfels Chamber of Commerce, New Braunfels, Texas, December 7, 2017. [30]
309. “*We’ll know the worth of water when the wells stop flowing: How the great artesian depletion taught Texas to conserve water*” presented to the Geography Department, Texas State University, San Marcos, Texas, November 8, 2017. [10]
308. “*Gone with the wind: The history of pumping water with windmills*” (invited) presented to the San Antonio de Bexar Chapter of the Daughters of the American Revolution, San Antonio, Texas, October 5, 2017. [50]
307. “*What’s in the 2017 State Water Plan for desalination?*” (invited) presented at TexasDesal 2017—Developing a Drought-Proof Water Supply, Austin, Texas, September 22, 2017.
306. “*Don’t mess with Texas drought*” presented at the “After the Drought” webinar for the National Groundwater Association, September 6, 2017.
305. “*Groundwater and groundwater modeling*” presented at the Milam and Burleson Counties Groundwater Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas, August 15, 2017.
304. “*Water supply & demand: Trends and opportunities for Texas*” presented at the Public Drinking Water Conference, Austin, Texas, August 8, 2017.
303. “*The future of Texas water: Drought is a battleship*” presented at the 29<sup>th</sup> Annual Texas Environmental Superconference, August 3, 2017, Austin, Texas.
302. “*Water we going to do for more water?*” presented at Leadership Central Texas—Regional Infrastructure Resource held by the Development District of Central Texas, Belton, Texas, July 20, 2017.
301. “*Groundwater use in Texas in the next decade: Priorities, Challenges, and Solutions*” presented at the Texas Aquifer Conference held by the American Ground Water Trust, Austin, Texas, May 3, 2016.
300. “*If you don’t like the climate in Texas, just wait around a few years!*” presented to the Texas Water Conservation Association Riverside Conference Center, Bastrop, Texas, April 21, 2017.
299. “*Innovative approaches to water resource challenges in Texas*” presented to the Texas Rural Water Association, Austin, Texas, March 30, 2017.
298. “*Innovative water technologies for Central Texas*” presented at the Buda Legislative Day at the Capitol, Austin, Texas, March 8, 2017.
297. “*The hydro-illogical cycle*” presented at “Water: The Highway to Texas’ Future” held by the Texas Water Roundtable, Austin, Texas (at the capitol building), February 2, 2017.
296. “*Thirsty cat is thirsty*” presented to the Technology Advisory Group, Austin, Texas, January 27, 2017.

295. *“Water planning for people (and fishes?)”* keynote presented to the Texas Chapter of the American Fisheries Society, Corpus Christi, Texas, January 20, 2017.
294. *“Everybody talks about the oscillations (but nobody does anything about ‘em!)”* presented to the Guadalupe-Blanco River Authority Board, Seguin, Texas, January 18, 2017.
293. *“Texas Flood: An update on TWDB activities to make Texans safer from floods”* presented to the Texas Water Development Board, Austin, Texas (co-presented with Richard Wade), January 12, 2007.
292. *“‘Gone with the Wind’ The history of pumping water with windmills”* presented to the Groundwater Management Districts Association, Fort Worth, Texas, January 10, 2017.
291. *“Whassup with the water?”* presented at the 2016 Texas Hill Country Water Summit, New Braunfels, Texas, December 8, 2016.
290. *“Innovative water tech for Central Texas”* (keynote) presented to The Capital Area Chapter of the Texas Chapter of the American Water Works Association; Austin, Texas, December 7, 2016.
289. *“Water water everywhere (but where’s the drop to drink?)”* presented to the Property Tax Institute, Austin, Texas, December 6, 2016.
288. *“Texas Flood: How the state is helping Texans prepare for, respond to, and recover from floods”* presented to the Bureau of Economic Geology, Austin, Texas, December 2, 2016.
287. *“Believe it or Not: Colorado River Version!”* presented during the Colorado River Alliance’s 2016 field trip, somewhere between Matagorda and Bay City, Texas, November 18, 2016.
286. *“So secret, occult, and concealed: An overview of groundwater management in Texas”* presented to the Houston Geological Society, Houston, Texas, November 9, 2016.
285. *“A Streetcar Named Desired Future Conditions: A (slightly) different track (with the same destination?)”* presented at the Texas Water Law Institute’s 2016 Water Law Fundamentals, Austin, Texas, November 4, 2016.
284. *“Mace’s Believe It or Not: Bizarre Texas groundwater facts!”* keynote presented at the Texas Alliance of Groundwater Conservation Districts’ Leadership Training Conference, Austin, Texas, October 27, 2016.
283. *“Texas flood”* lunchtime keynote presented to the Texas Floodplain Management Association, Bastrop, Texas, September 8, 2016.
282. *“Mace’s Believe it or Not! Bizarre Texas groundwater facts! (Central Texas Edition)”* presented at the Milam and Burleson Counties Ground Water Summit, Caldwell, Texas, August 11, 2016.
281. *“Water supply and demand: Trends and challenges for Texas”* presented at the Texas Commission of Environmental Quality’s Public Drinking Water Conference, Austin, Texas, August 9, 2016.
280. *“Ode to chicken fried steak”* read at a Texas Water Development Board agency-wide meeting, Austin, Texas, July 7, 2016.
279. *“Five feet high and risin’: Floods in Texas (and what to do about them)”* presented to the Association of Water Board Directors, Fort Worth, Texas, June 25, 2016.
278. *“Mace’s Believe It or Not: Bizarre Texas groundwater facts!”* keynote presented at the Texas Aquifer Conference held by the American Ground Water Trust, Austin, Texas, June 8, 2016.

277. *“A tutorial on TERS (Total Estimated Recoverable Storage)”* invited presentation to the Montgomery County Commissioners Court, Conroe, Texas, May 24, 2016.
276. *“Innovate water at TWDB”* presented at InvestH2O: Annual Texas Water Technology Investor Forum sponsored by AccelerateH2O, June 16, 2016.
275. *“Water, water, everywhere: Even in your mail!”* presented to the Capitol of Texas Postcard Club, Austin, Texas, May 11, 2016.
274. *“Drill, baby, drill: Groundwater as a stepping stone to water resource sustainability”* presented at the National Ground Water Association’s Groundwater Visibility Initiative, Denver, Colorado, April 28, 2016.
273. *“So secret, occult, and concealed: An overview of groundwater management in Texas”* presented to the Water Law Institute—Law of the Rio Grande, CLE International, Santa Fe, New Mexico, April 15, 2016.
272. *“Gone With the Wind: The history of pumping water with windmills”* presented at the 3<sup>rd</sup> Biennial Texas Panhandle-South Plains Water Conservation Symposium, Amarillo, Texas, February 24, 2016.
271. *“The who’s, what’s, and where’s of groundwater management in Texas”* presented to Austin Area Keller Williams Realty Team, Austin, Texas, January 12, 2016.
270. *“Modeling groundwater availability in Texas”* presented at the Groundwater Management Districts Association Winter Meeting, Sacramento, California, January 8, 2016.
269. *“Water supply and demand: Trends and challenges for the Southwest”* presented at the Bell County Water Symposium, Belton, Texas, November 19, 2015.
268. *“Water supply and demand: Trends and challenges for the Southwest”* presented at Navigating Agriculture Through the Water-Energy-Food Nexus, hosted by Texas A&M University, Austin, Texas, November 19, 2015.
267. *“Aquifer storage and recovery using reverse osmosis”* presented to the City of Kyle City Council, Kyle, Texas, November 17, 2015.
266. *“Texas can be a little salty: How desalination provides (and will provide) water to our state”* presented to the Environmental Law Section, Austin Bar Association, Austin, Texas, November 5, 2015.
265. *“What a waterful, waterful world: Water in Texas (and the Hill Country)”* presented to the Hill Country Chapter of Texas Democratic Women, Kerrville, Texas, November 3, 2015.
264. *“Big ideas for a big state: The history (and recent past...) of water importation to Texas”* presented to the Texas Water Conservation Association, San Antonio, Texas, October 16, 2015.
263. *“Deep in the heart of Water, Texas”* opening comments at the 1<sup>st</sup> Annual Film Contest on Water hosted by The Water Foundation and the Austin Film Society, Austin, Texas, October 6, 2015.
262. *“10 years of desire: Joint planning, groundwater availability, and desired future conditions”* presented at Texas Water Law, 25<sup>th</sup> Annual Conference hosted by CLE International, Austin Texas; October 5, 2015.
261. *“Texas water!”* presented to the LSSS, RACSS, and LRL Professional Development Seminar, Austin, Texas, October 5, 2015.
260. *“Water for the Hill Country: Who, what, and when?”* presented at the 2015 Hill Country Alliance Leadership Summit, Fredericksburg, Texas, September 24, 2015.

259. *“Show me the water money!”* presented at the 4<sup>th</sup> Lone Star Water Summit, Austin, Texas, September 10, 2015.
258. *“Texas water outlook”* presented at the 4<sup>th</sup> Lone Star Water Summit, Austin, Texas, September 10, 2015.
257. *“The brackish groundwater production zone”* presented at the 4<sup>th</sup> Annual Texas Groundwater Summit hosted by the Texas Alliance of Groundwater Districts, San Marcos, Texas, August 27, 2015.
256. *“Under pressure: The flowing (and unflowing) history of artesian water in Texas”* presented at the Texas Commission on Environmental Quality brownbag, Austin, Texas, August 20, 2015.
255. *“Drought today drought tomorrow?”*, *“Water resources and water planning”*, and *“Drought and the future of green grass”* presented at the Texas Nursery and Landscaping Association, Dallas, Texas, August 13, 2015.
254. *“Groundwater 101”* presented at the Milam & Bureson Counties Ground Water Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas, August 12, 2015.
253. *“Drought today. Drought tomorrow? Impacts of the drought in Texas and what the future may hold”* presented to the Texas Rural Water Association, Galveston, Texas, July 16, 2015.
252. *“Big ideas for a big state—The history (and recent past...) of water importation to Texas”* presented to the Association of Water Board Directors, Corpus Christi, Texas, June 19, 2015.
251. *“What’s happening at the rock house?”* presentation to the Texas Water Research Coordination Network, Austin, Texas, May 20, 2015.
250. *“The future of groundwater in Texas”* presented to EER 396, The University of Texas at Austin, Austin, Texas, April 27, 2015.
249. *“The current condition of desired future conditions”* presentation at Texas Water Law—Sharing Water Resources, Water Law Institute, CLE International, San Antonio, Texas, April 9, 2015.
248. *“Drought and what Texas has been doing about it”* keynote presentation to at the 28<sup>th</sup> Symposium on the Application of Geophysics to Engineering and Environmental Problems held by the Environmental and Engineering Geophysical Society, Austin, Texas, March 23, 2015.
247. *“So secret, occult, and concealed: The story of groundwater in Texas”* presentation at the National Ground Water Association Groundwater Summit, San Antonio, Texas, March 17, 2015.
246. *“Salinity control on the Pecos River”* presentation at the Law of the Rio Grande Conference, Santa Fe, New Mexico, March 6, 2015.
245. *“Texas can be a little salty...”* keynote presentation at the Multi-State Salinity Coalition 2015 Annual Salinity Summit “Salinity, Scarcity, and Solutions”, Las Vegas, Nevada; February 19, 2015 [filling in for the chairman of the Texas Water Development Board]
244. *“What a difference a drought makes!”* keynote presentation at the University Municipal Water Consortium Conference, Austin, Texas, January 28, 2015 (filled in for the Texas Water Development Board’s chairman).
243. *“Under pressure: The flowing (and unflowing...) history of artesian wells in Texas”* presented at a TWDB Technical Brownbag, Austin, Texas, January 13, 2015.
242. *“Conserve to serve”* presented at the 3<sup>rd</sup> Lone Star Water Summit, Austin, Texas, December 12, 2014.

241. *“Hill Country water issues”* presented at the Texas Hill Country Water Summit, Smithson Valley, Texas, December 5, 2014.
240. *“The wonders of water and wine”* presented on the Colorado River Tour 2014: Exploring Contrasts, Diversity and Opportunity, held by the Colorado River Alliance, somewhere outside San Saba, November 14, 2014.
239. *“The flowing (and unflowing...) history of artesian water in Texas”* presented to UTQUEST, Austin, Texas, October 28, 2014.
238. *“Something’s brewing down under...”* presented to the Texas Water Foundation’s bus tour to MillerCoors in Fort Worth, somewhere between Troy and Waco, Texas, October 23, 2014.
237. *“Fire & Water: How the drought has impacted current and future water supplies of Texas”* presented to The Woodlands Area Economic Development Partnership, The Woodlands, Texas, October 21, 2014.
236. *“Brackish desal: Sustainability and subsidence”* presented at Texas Desal 2014, Austin, Texas, September 11, 2014.
235. *“The paradox of groundwater availability”* presented at the Texas Groundwater Summit, San Marcos, Texas, August 28, 2014.
234. *“It’s so dry, they closed down two lanes at the swimming pool”* presented at the Texas Groundwater Summit, San Marcos, Texas, August 27, 2014.
233. *“Cutting edge improvements to meet sustainability and water resource needs”* presented to South Central Membrane Association, San Antonio, Texas, August 19, 2014 [back-up speaker for Texas Water Development Board’s Chairman]
232. *“Dang it’s been dry in Texas... Drought and how we’re dealing with it”* presented to the Southeastern Association of Regulatory Utility Commissioners, Tunica, Mississippi, June 10, 2014.
231. *“Groundwater 101”* presented to staff members of the Texas House, Austin, Texas, May 28, 2014.
230. *“Drought and desire in Big D...”* presented at the North Texas Water Symposium held by the U.S. Green Building Council North Texas Chapter, Dallas, Texas, April 25, 2014.
229. *“Rustling up more water during drought!”* presented to the Capital Area Suburban Exchange, Austin, Texas, March 28, 2014.
228. *“Is rainwater reliable?”* presented to the Texas Historical Commission, Austin, Texas, March 25, 2014.
227. *“A water outlook for Texas”* presented at the Upstream Oil and Gas Production Summit, Houston, Texas, March 10, 2014.
226. *“Building-scale response to drought”* presented at the 5<sup>th</sup> Annual Texas Green Home & Living Show, San Marcos, Texas, March 8, 2014.
225. *“The trees in Texas are (still...) begging for dogs”* presented at the 2014 Texas Land Conservation Conference, Austin, Texas, February 27, 2014.
224. *“Groundwater in Texas”* presented to the Dr. James G. Teer Conservation Leadership Institute, the Texas Chapter of the Wildlife Society, Austin, Texas, February 22, 2014.
223. *“Water supply and water treatment innovations for urban water sustainability.”* presented at the Water Reuse Tech Summit 2014, San Antonio, Texas, January 29, 2014.
222. *“What comes around goes around: Recycling water in Texas (Haven’t I drunk you before?)”* presented at the Water ReUse Tech Summit 2014, San Antonio, Texas; January 28, 2014.



221. *“What comes around goes around: Recycling water in Texas (Haven’t I drunk you before?)”* presented to the Association of Water Board Directors, Dallas, Texas; January 18, 2014.
220. *“A Drought, a session, and a proposition: Will the future be wetter?”* presented to the Austin Geological Society, Austin, Texas, December 2, 2013.
219. *“Results of the Texas brackish water study to calculate source potential as a viable alternative to fresh water”* presented to the Shale Play Water Management Initiative 2013, Dallas, Texas, November 19, 2013.
218. *“The water-industry nexus: What Texas is doing to meet current & future water needs”* presented to the Gulf Coast Chapter of the Air & water Management Association, Houston, Texas, November 12, 2013.
217. *“Is rainwater reliable?”* keynote presentation at the American Rainwater Catchment Systems Association annual meeting, Austin, Texas, November 5, 2013.
216. *“Ain’t I drunk you before? Re-use during drought in Texas”* presented at the World Water Tech North America Summit, Toronto, Canada, October 30, 2013.
215. *“Meeting the Water Needs for a Growing Texas”* presented to Gulf Coast Economic Development District, Houston, Texas, October 25, 2013.
214. *“So secret, occult, and concealed: The story of groundwater in Texas”* presented to UT QUEST, Austin, Texas, October 24, 2013.
213. *“Meeting the water needs for a growing texas”* presented at the 20<sup>th</sup> Annual Texas Midwest Conference, Abilene, Texas, October 23, 2013.
212. *“With drought comes opportunity...”* keynote presented at Water Forum III: Drought and Other Extreme Weather Events hosted by the Center for Integrated Earth System Science, Austin, Texas, October 14, 2013.
211. *“iWater”* presented to U.T. SAGE (Seminars for Adult Growth and Enrichment), Austin, Texas, October 7, 2013.
210. *“Questions about using brackish groundwater in Texas”* presented at Texas Desal 2013, Austin, Texas, September 13, 2013.
209. *“Concerns, questions, and (the promising) future of using brackish groundwater in Texas”* keynote presented at the Texas Groundwater Summit hosted by the Texas Alliance of Groundwater Conservation Districts, August 28, 2013, San Marcos, Texas.
208. *“Drought (and what we’re going to do about it!)”* presented to the Long Canyon Phase II & III Homeowners Association, Inc., Austin, Texas, August 20, 2013.
207. *“Opportunities for ASR in Texas”* presented at Managed Aquifer Recharge Conference hosted by the American Ground Water Trust, Austin, Texas, July 24, 2013.
206. *“The challenges (and successes) of water in Texas”* presented to The Next Generation Project of Texas Fellows, The University of Texas, Dallas, Texas.
205. *“Current assessment of Texas water resources”* keynote presented at the Texas Farm Bureau’s Summer Commodity Conference, San Marcos, Texas, June 26, 2013.
204. *“Conservation is forever”* presented to the Capital Area Suburban Exchange 10<sup>th</sup> Annual CASE Conference, South Padre Island, Texas, June 15, 2013.
203. *“Groundwater management: Texas style!”* presented to the Association of Western State Engineers, Austin, Texas, June 10, 2013.

202. *"The flowing (and unflowing...) history of artesian water in Texas"* presented at the National Ground Water Association's Ground Water Summit, San Antonio, Texas, April 29, 2016.
201. *"Current and potential future water issues related to Texas shale-gas development"* presented at Shale-Gas Development and Water Issues Conference, Austin, Texas, March 19, 2013.
200. *"The state of water in the state of Texas"* presented to the Austin Association of Facility & Maintenance Engineers, Austin, Texas, March 13, 2013.
199. *"Groundwater and science"* presented at the Texas Water Symposium, Texas Springs, Making Connections Between Groundwater, Surface, Science, and Stewardship, Junction, Texas, March 8, 2013.
198. *"Water in Texas"* presented at Uvalde County Day, Austin, Texas, March 6, 2013.
197. *"The trees in Texas are begging for dogs"* presented at the 2013 Texas Land Conservation Conference, Texas Land Trust Council, Austin, Texas, March 1, 2013.
196. *"Groundwater and metering"* presented to the Texas Ag Council, Austin, Texas, February 27, 2013.
195. *"Meeting the water needs for a growing Texas"* presented at the Texas Conservative Roundtable Annual Policymakers Conference, Austin, Texas, February 5, 2013.
194. *"Desired future conditions: What Texans want their aquifers to look like"* presented at the Texas Ground Water Association Annual Convention & Trade Show, San Marcos, Texas, January 25, 2013.
193. *"Water and drought in Real County"* presented to the Real County Pioneers Youth Leadership Group, Austin, Texas, January 24, 2013.
192. *"Where will the water come from?"* presented to the Groundwater Management District Association, Austin, Texas, January 11, 2013.
191. *"Where will the water come from?"* presented to the Environment and Energy Law Internship Program of Texas, Austin, Texas, January 10, 2013.
190. *"Water issues in Central Texas: Yesterday, today, and tomorrow"* presented at Leadership Austin, Austin, Texas, November 14, 2012.
189. *"Texas groundwater management"* presented at Water 101 held by the Senate Natural Resource Committee and the House Natural Resource Committee, Austin, Texas, November 12, 2012.
188. *"A Streetcar Named Desired Future Conditions: Remixed, remade, remodeled (available groundwater)"* presented at the 2012 Texas Water Law Institute, Austin, Texas, November 2, 2012.
187. *"Saving Texas (one drop at a time)"* presented at the 6<sup>th</sup> Annual North Texas Regional Water Conservation Symposium, Irving, Texas, November 1, 2012.
186. *"Drought (and what we do about it)"* presented at The Lone Star Water Forum: Science and Politics of Water, Brenham, Texas, October 13, 2012.
185. *"Water Resource Issues in Texas: Texas Water Development Board"* presented to the Western States Water Council, San Antonio, Texas, October 12, 2012.
184. *"Gone with the Wind: The History of Pumping Water with Windmills"* presented to the American Society of Agricultural and Biological Engineers—Texas Section, San Antonio, Texas, October 4, 2012.
183. *"Water is Powerful"* keynote presented at the Water-Energy Nexus: Best Practices Conference hosted by Growing Texas, College Station, Texas, October 3, 2012.

182. *“How Texas responds (and doesn’t respond…) to drought”* presented at the Colorado Water Conservation Board Statewide Drought Conference, Denver, Colorado, September 19, 2012.
181. *“How Texas responds (and doesn’t respond…) to drought”* presented to the American Water Resources Association student chapter, Texas A&M University, College Station, Texas, September 6, 2012.
180. *“Under Pressure: The flowing (and unflowing…) history of artesian water in Texas”* presented to the Association of Water Board Directors, San Antonio, Texas, July 21, 2012.
179. *“Drought! And how Texas responds to drought…”* presented at the annual meeting of the Texas Water Quality Association, Montgomery, Texas, July 14, 2012.
178. *“What’s happening at TWDB (Now and next year)”* presented at the Texas Groundwater Summit hosted by the Texas Alliance of Groundwater Districts, Austin, Texas, August 29, 2012.
177. *“Is data a four-letter word?”* presented at the annual meeting of The Association of American State Geologists, Lakeway, Texas, June 11, 2012.
176. *“Desalting Texas”* presented at an HNTB brown bag, Austin, Texas, May 31, 2012.
175. *“What is Texas doing about the drought?”* presented to the Pecan Plantation Breakfast Club, Granbury, Texas, May 30, 2012.
174. *“What happens when the big one hits?”* lunchtime keynote at The Water Summit, hosted by The Academy of Medicine, Engineering, and Science of Texas, Austin, Texas, May 21, 2012.
173. *“Groundwater during drought: What happens when the rain stops?”* chair and presenter, National Ground Water Summit, National Ground Water Association, Garden Grove, California, May 8, 2012.
172. *“Drought and how we respond to drought”* presented at “Water for People and the Environment: Managing Texas Water Demands in the 21st Century” hosted by the Sierra Club of Texas, Austin, Texas, April 27, 2012.
171. *“The future of irrigation in Texas”* presented at Irrigated Agriculture Responds to Water Use Challenges—Strategies for Success hosted by U.S. Committee on Irrigation and Drainage, Austin, Texas, April 6, 2012.
170. *“What is on the water supply horizon for Texas?”* presented at the Central Texas Water Conservation Symposium sponsored by the Central Texas Water Efficiency Network, Austin, Texas, March 20, 2012.
169. *“Water, water, everywhere, nor any drop to drink (unless you have desalination)”* presented to the Texas Alliance of Energy Producers, Austin, Texas, March 19, 2012.
168. *“The times they are a changin’: How a changin’ climate affects our water resources”* presented to the Texas Rural Water Association, Fort Worth, Texas, March 16, 2012.
167. *“Emerging groundwater issues—Gazing into the future: Policy & politics”* presented to the National Ground Water Association’s Emerging Issues Symposium, San Antonio, Texas, February 26, 2012.
166. *“Impact of the drought on our water”* presented at the 2012 Statewide Land Conservation Conference sponsored by the Texas Land Trust Council, Austin, Texas, February 23, 2012.

165. *“Panhandle water or panhandling for water? How the drought has impacted our water supplies (and what we can do about it!)”* presented at the Texas Panhandle Water Conservation Symposium, Amarillo, Texas, February 9, 2012.
164. *“Drought and irrigation”* presented at the 2011 Texas Irrigation Expo, McAllen, Texas, December 9, 2011.
163. *“Responding to drought (and megadrought) in Texas”* presented at the Hydro Brown Bag, Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, February 24, 2012.
162. *“Impact of the drought on our water”* presented at the 2012 Statewide Land Conservation Conference, Texas Land Trust Council, Austin, Texas, February 23, 2012.
161. *“Salinity control on the Pecos River”* presented at the Multi-State Salinity Coalition’s Salinity Summit, Las Vegas, Nevada, January 26, 2012.
160. *“The times they are a changin’: How a changin’ climate affects our water resources”* presented at UT-Quest, Austin, Texas, January 24, 2012.
159. *“Drought and irrigation”* presented at the 2011 Texas Irrigation Expo, McAllen, Texas, December 9, 2011.
158. *“After the sun went down: Desired future conditions and managed (now modeled) available groundwater after the 82<sup>nd</sup> Session”* presented at the 2011 Water Law Institute Conference, Austin, Texas, December 2, 2011.
157. *“Status of the drought in Texas”* presented to the Environmental Science Institute at The University of Texas at Austin, October 14, 2011, Austin, Texas.
156. *“The trees in Texas are begging for dogs”* presented at the Alliance for Water Efficiency Member Meeting and Reception, Las Vegas, Nevada, October 4, 2011.
155. *“Water and the future of Texas”* presented at “Water, Climate & Finance: The New Intersection...” hosted by the Center for Environment and Natural Security, Scripps Institution of Oceanography, La Jolla, California, September 20, 2011.
154. *“Water management (Water and the future of Texas)”* presented at Gillespie County Land-Use Expo sponsored by the Texas Forest Service, Fredericksburg, Texas, September 17, 2011.
153. *“TWDB Update”* presented to the Texas Alliance of Groundwater Districts, Austin, Texas, August 30, 2011.
152. *“Fracking and water resources: The Pearsall/Eagle Ford Shale and South Texas”* presented at a town hall meeting hosted by the Safe Fracking Coalition in conjunction with the Rio Grande International Study Center, Laredo, Texas, June 10, 2011.
151. *“Texas needs water”* presented at the Texas Water Foundation’s “Texas Water Day” at the state capital, Austin, Texas, April 27, 2011.
150. *“How can groundwater conservation districts help improve TWDB’s annual irrigation water use estimates?”* presented at the Texas Alliance of Groundwater Districts Regular Meeting, Austin, Texas, March 31, 2011.
149. *“A solution to dissolution: Mitigating the impacts of salt on Texas-New Mexico water supplies”* presented at the Rio Grande Basin Meeting, Corps of Engineers, Albuquerque, New Mexico, February 18, 2011.
148. *“A Streetcar Named Desired Future Conditions—Next stop: The 82<sup>nd</sup> Legislature”* presented at the TWCA/TRWA Water Law Seminar, hosted by the Texas Water Conservation Association and the Texas Rural Water Association, Austin, Texas, January 27, 2011.

147. *"If you don't like the weather (or the climate), just hang around a few minutes (decades): Climate variability and water resources in Texas"* presented at the Groundwater Protection Council meeting "Underground Injection Control: THE National Ground Water Protection Program", Austin, Texas, January 25, 2010.
146. *"Aquifers 101"* Groundwater 101, seminar hosted by the Texas Water Development Board for legislative staff and groundwater conservation district directors, Austin, Texas, November 10, 2010.
145. *"TWDB and the legislative session"* presented at the Texas Water Symposium, hosted by Schreiner University, Texas Tech University, Hill Country Alliance, and Texas Public Radio, Austin, Texas, September 30, 2010.
144. *"A(n admittedly large) state bobbing in a sea of federal water policy"* presented at the 13<sup>th</sup> Annual Transportation and Infrastructure Summit, Irving, Texas, August 13, 2010.
143. *"TWDB's Innovative Water Technologies Program"* presented at the Public Drinking Water Conference conducted by the Texas Commission on Environmental Quality, Austin, Texas, August 11, 2010.
142. *"Translating (and eating?) the alphabet soup of groundwater management in Texas"* presented at "Water" How Deep in the Heart of Texas?" symposium held by the Ranchers & Landowners Association of Texas, Bandera, Texas, July 21, 2010.
141. *"Groundwater in regions C & D"* presented to the Study Commission on Region C Water Supply, Mount Pleasant, Texas, June 21, 2010.
140. *"The rivers (and aquifers) run through it—Planning for water in Texas"* presented to the World Affairs Council of South Texas, Corpus Christi, Texas, May 19, 2010.
139. *"Policy and science: A match made in heaven?"* presented at the Environmental Trade Fair and Conference hosted by the Texas Commission on Environmental Quality, Austin, Texas, May 4, 2010.
138. *Development of a revised critical period management plan for the Edwards Aquifer to protect endangered species"* presented at Geological Society of America South-Central Meeting, Branson, Missouri, April 13, 2010.
137. *"In hot water? How climate change may affect the groundwater resources of Texas"* presented at the Texas Water Symposium, hosted by Schreiner University, Texas Tech University, Hill Country Alliance, and Texas Public Radio, Junction, Texas, January 28, 2010.
136. *"Funding your water program—Texas Water Development Board"* presented at Texas Water Resources Institute's "Funding Your Water Program: One-on-One with Water Agencies", College Station, Texas, January 11, 2010.
135. *"Aquifer storage and recovery, aquifer recharge, and desalination of brackish groundwater"* presented as a keynote speaker at the EPA Ground Water Summit 2010: Aquifer Storage and Recovery, Aquifer Recharge, and Desalination of Brackish Ground Waters, San Antonio, Texas, February 23, 2010
134. *"The ground to surface water journey"* presented as a plenary speech at the Land Water People conference held by the River Systems Institute, Texas State University, San Marcos, Texas, November 16, 2009.
133. *"Gone with the wind—The history of windmills"* presented as part of the UT Quest program at The University of Texas at Austin, Austin, Texas, November 3, 2009.

132. *“Water science in Texas”* presented at the “Water and Energy for the 21<sup>st</sup> Century—Bureau of Economic Geology Centennial Symposium”, Austin, Texas, August 7, 2009.
131. *“Groundwater availability—Texas style!”* presented at the Geological Society of American-South Central Section at the Geology and Public Policy Forum: Resource Planning and Geoscientific Input, Richardson, Texas, March 16, 2009.
130. *“Modeling of the Ogallala Aquifer”* presented at the High Plains Irrigation Conference & Trade Show, Amarillo, Texas, January 14, 2008.
129. *“What do you desire? The future of groundwater management in Texas”* presented to the Industry Council on the Environment, Austin, Texas, November 20, 2008.
128. *“Groundwater management areas and priority groundwater management areas”* presented to the Region D Regional Water Planning Group, Mount Pleasant, Texas, November 19, 2008.
127. *“The rivers (and aquifers) run through it: Planning for water in Texas”* presented as part of the UT Quest curriculum, Austin, Texas, October 21, 2008.
126. *“State water resources”* presented to the Texas Aggregate and Concrete Association, San Antonio, Texas, September 30, 2008.
125. *“So secret and occult: The story of groundwater in Texas”* presented to the Texas Alliance of Land Brokers, Marble Falls, Texas, July 23, 2008.
124. *“Panhandle water”* presented to the Amarillo Republican Women’s Club, Amarillo, Texas, June 19, 2008.
123. *“Groundwater availability—Texas style!”* presented at “Joint Management of Shared Resources”, sponsored by the Groundwater Management Districts Association, El Paso, Texas, June 13, 2008.
122. *“Will climate change affect the aquifers of Texas?”* presented at “FORECAST: Climate Change—Texas Water”, sponsored by the River Systems Institute, Austin, Texas, April 29, 2008.
121. *“Groundwater districts management in Texas—Developing desired future conditions”* presented to a continuing education program hosted by the Panhandle/South Plains Chapter of the Texas Ground Water Association and the Texas Ground Water Association, Dumas, Texas, March 29, 2008.
120. *“Groundwater availability”* presented to the Kinney County Groundwater Conservation District, Brackettville, Texas, February 27, 2008.
119. *“What’s going on with groundwater?”* presented at the Barnett Shale Breakfast Symposium sponsored by the Fort Worth Business Press, Fort Worth, Texas, February 29, 2008.
118. *“A streetcar named desired future conditions”* presented at the 2008 Statewide Land Trust Conference, Austin, Texas, February 22, 2008.
117. *“Concerns the TWDB has discovered about the Trinity Aquifer in McLennan County and surrounding area”* presented to the McLennan County Groundwater Conservation District, Bellmead, Texas, February 7, 2008.
116. *“Desired future conditions and the Ogallala Aquifer”* presented at the annual meeting of county committees for the High Plains Underground Water Conservation District No. 1, Lubbock, Texas, January 25, 2008.
115. *“Groundwater management in Texas—Developing desired future conditions”* presented to the Texas Ground Water Association, Lubbock, Texas, January 24, 2008.

114. *“Groundwater management areas, desired future conditions, and the Edwards Aquifer”* presented to the Technical Advisory Work Group for Edwards Aquifer Optimization Research, San Antonio, Texas, December 12, 2007.
113. *“Desired future conditions—A brief (but riveting!) history of groundwater management areas”* presented at the 2007 Texas Water Law Institute, Austin, Texas, December 7, 2007.
112. *“Groundwater and Senate District 31”* presented to the Senate 31 Club, Amarillo, Texas, November 7, 2007.
111. *“Water planning in Texas”* presented at the 7<sup>th</sup> Annual Bell County Water Symposium, Belton, Texas, November 8, 2007.
110. *“Groundwater in Hood County, Texas”* presented at the Lake Granbury Master Gardner Seminar, Granbury, Texas, October 20, 2007.
109. *“Gestión del agua subterránea en los acuíferos de Texas, Estados Unidos”* presented at “Taller de análisis de estrategias para la gestión y estabilización de acuíferos” held at the Instituto Mexicano de Tecnología del Agua, Jiutepec, Mexico, October 17, 2007.
108. *“Consensus yield—Mixing groundwater modeling and policy down in Texas”* presented at the Association of Environmental and Engineering Geologists’ 50<sup>th</sup> Annual Meeting, Los Angeles, California, September 29, 2007.
107. *“The water cycle”* and *“Ground water resource management challenges”* presented at the Water Well Inspector Training Program hosted by the National Ground Water Association, Austin, Texas, September 18, 2007.
106. *“Managed available groundwater—The well’s perspective...”* presented at the 17<sup>th</sup> Annual Texas Water Law Conference hosted by the Water Law Institute, CLE International, Austin, Texas, September 10, 2007.
105. *“The shotgun wedding of groundwater modeling and policy down in Texas”* hosted by the Kansas Geological Survey and presented at the Kansas Water Office, Topeka, Kansas, August 30, 2007.
104. *“Policy and science—An (ethical) match made in heaven?”* presented to the Austin Geological Society, Austin, Texas, August 27, 2007.
103. *“Surface water and groundwater & who’s who in water”* presented at “Water You Looking At? Relationships and Regionalization”, a water forum hosted by the Boerne Chamber of Commerce, Boerne, Texas, August 1, 2007.
102. *“Water in Texas—Are we all wet?”* presented to the Texas Department of Insurance, Round Rock, Texas, July 11, 2007.
101. *“Surface water and groundwater—Together again?”* presented to TexasBarCLE, San Antonio, Texas, June 28, 2007.
100. *“Groundwater issues and modeling in South-Central Texas—Are We All Wet?”* presented to the Regional Clean Air and Water Association, San Antonio, Texas, June 26, 2007.
99. *“Water quantity and the Carrizo-Wilcox Aquifer”* presented to the National Water Quality Assessment Liaison Meeting, Bastrop, Texas, June 21, 2007.
98. *“Groundwater and Region G”* presented to the Brazos G Regional Water Planning Group, Waco, Texas, June 20, 2007.
97. *“Groundwater management areas—A post-session update”* presented to the Texas Water Conservation Association, Galveston, Texas, June 14, 2007.
96. *“Another Biennium, another session—A groundwater report from the 2007 Texas Legislature”* presented to the Austin Geological Society, Austin, Texas, May 7, 2007.

95. *“Groundwater district progress toward desired future conditions”* presented at the Texas Water Law conference held by CLE International, Houston, Texas, April 24, 2007.
94. *“Groundwater issues in Region C”* presented to the regional water planning group in Region C, Grand Prairie, Texas, April 9, 2007.
93. *“Groundwater and groundwater issues in Johnson County, Texas”* presented to the Cleburne Chamber of Commerce, Austin, Texas, April 3, 2007.
92. *“Is the Trinity Aquifer going dry?”* presented at the Barnett Shale Symposium, Fort Worth, Texas, March 30, 2007.
91. *“Gone with the wind—The history of windmills”* presented to the Texas Water Conservation Association, Austin, Texas, March 9, 2007.
90. *“A story of growth and gas—Groundwater use and its effects on water levels in North-Central Texas”* presented to the Texas Groundwater Protection Committee, Austin, Texas, February 15, 2007.
89. *“Availability assessment for groundwater use in the northern Trinity Aquifer or Is the Trinity Aquifer going dry?”* presented to the Barnett Shale Water Conservation and Management Committee, Willow Park, Texas, February 14, 2007.
88. *“Science and policy—A match made in heaven?”* presented to Department of Geological Sciences, The University of Texas at Austin, Hydro Brown-Bag, Austin, Texas, February 9, 2007.
87. *“Groundwater and groundwater management in Hood County, Texas”* presented to the Brazos River Conservation Association, Granbury, Texas, January 9, 2007.
86. *“Policy and science—Tales from the trenches”* presented at the “Charting the Course—Water Plan and Policy for Texas” conference sponsored by the River Systems Institute held in Austin, Texas, November 16, 2006.
85. *“A Streetcar named Desired Future Conditions—The Future Groundwater Availability of Texas”* presented at the 2006 Texas Water Monitoring Congress, Austin, Texas, September 14, 2006.
84. *“Groundwater modeling in Texas: Interplay of management and science”* presented to the Groundwater Management Seminar (BAEN 681/ CVEN 681/WMHS 681), Texas A&M University, College Station, Texas, September 13, 2006.
83. *“Is the Carrizo an option?”* presented at “What’s on Tap for South Central Texas? A Water for People and the Environment Conference” sponsored by the Lone Star Chapter of the Sierra Club, San Antonio, Texas, September 9, 2006.
82. *“Water for Texas”* presented at “Let’s Talk About Water!”, an event hosted by San Antonio Public Radio and Texas Living Water Project at Cave Without a Name in Boerne, Texas, September 8, 2006.
81. *“The Trinity to infinity?”* presented at the Wimberley Water Conference, Wimberley, Texas, August 18, 2006.
80. *“Groundwater in Burnet County, Texas”* presented to the Central Texas Groundwater Conservation District, Burnet, Texas, July 10, 2006.
79. *“A streetcar named desired future conditions—HB 1763 and you”* presented to the Texas Alliance of Groundwater Districts, Kerrville, Texas, June 29, 2006.
78. *“Groundwater availability in Texas: The past (2002 State Water Plan and before), the present (2006 regional water plans), and the future (joint planning in groundwater management areas)”* presented to the Texas Groundwater Protection Committee, Austin, Texas, April 20, 2006.



77. *“Groundwater in Texas”* presented to the Association of Water Board Directors, San Antonio, Texas, February 4, 2006.
76. *“The history, culture, and water resources of Iceland”* presented at a Texas Water Development Board Technical Brown Bag, Austin, Texas, January 26, 2006.
75. *“Groundwater in Texas”* presented to the Texas Ag Industries Association, 8<sup>th</sup> Annual Membership Conference, Fort Worth, Texas, January 16, 2006.
74. *“Gone with the wind—The history of pumping water with windmills”* presented to the U.S. Geological Survey, Austin, Texas, December 15, 2005.
73. *“Gone with the wind—The history of pumping water with windmills”* presented to the Austin Geological Society, Austin, Texas, November 7, 2005.
72. *“Aquifer in Texas—Wet sands and wetlands”* presented at the annual meeting of the South Central Chapter of the Society of Wetlands Scientists, Texas State University, San Marcos, Texas, October 7, 2005.
71. *“Revenge of the synth(etic aquifers)—GAM and groundwater management”* presented to the Texas Water Conservation Association, Galveston, Texas, June 23, 2005.
70. *“Water we doing to conserve groundwater?”* presented at the annual meeting of the Texas Council of the Soil and Water Conservation Society, San Antonio, Texas, June 16, 2005.
69. *“Groundwater is no longer secret and occult”* presented to the San Antonio Section of the American Water Works Association, San Antonio, Texas, June 2, 2005.
68. *“Groundwater availability modeling”* presented to the Water Resources Planning class, The University of Texas at Austin, Austin, Texas, April 25, 2005.
67. *“Groundwater in Texas”* presented to the Association of Water Board Directors, Austin, Texas, January 29, 2005.
66. *“Please pass the salt—Using oil fields for the disposal of concentrate”* invited presentation presented at the 2004 National Salinity Management and Desalination Summit, Las Vegas, Nevada, December 13, 2004.
65. *“Groundwater sustainability: It ain’t what you think it is...”* presented at the Texas Ground Water 2004: Towards sustainability conference hosted by Texas State University – San Marcos, Austin, Texas, November 19, 2004.
64. *“Overview of the GAM initiative”* presented at the Gulf Coast Aquifer GAM Conference hosted by the Coastal Bend Groundwater Conservation District, Wharton, Texas, November 12, 2004.
63. *“Review and conclusions from the central GAM project”* presented at the Gulf Coast Aquifer GAM Conference hosted by the Coastal Bend Groundwater Conservation District, Wharton, Texas, November 12, 2004.
62. *“Groundwater availability modeling”* presented at The University of Texas at San Antonio, San Antonio, Texas, November 8, 2004.
61. *“TWDB tools – How can they be used for stewardship?”* presented at The Role of Stewardship in Water Resources: Illustrating the how’s and why’s of the Nueces River headwaters region hosted by the Nueces River Authority, Uvalde, Texas, November 6, 2004.
60. *“Groundwater availability modeling in the central Gulf Coast area”* presented at the 2004 South Texas Farm and Ranch Show, Victoria, Texas, October 27, 2004.

59. *"Groundwater is no longer secret and occult"* presented at the Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, October 21, 2004.
58. *"Texas groundwater is part of the water (re)cycle"* presented at the 8<sup>th</sup> Annual Texas Recycling and Sustainability Summit, San Antonio Texas, September 27, 2004.
57. *"Please pass the salt: Using oil fields for the disposal of concentrate"* presented at the 2004 Biennial Conference and Exposition, "Water resource development using membranes," American Membrane Technology Association, San Antonio, Texas, August 5, 2004.
56. *"Water and West Texas: Data and decisions"* presented at the West Texas Water Roundtable, sponsored by Sul Ross State University, The Environmental Science Institute at UT-Austin, the groundwater conservation districts of Jeff Davis, Brewster, and Presidio counties, and the Environmental Defense Fund, in Alpine, Texas, May 10, 2004.
55. *"Groundwater is no longer mysterious and occult"* presented at the Hydrogeology Brown Bag at The University of Texas at Austin, Department of Geological Sciences, September 26, 2003.
54. *"Groundwater availability modeling and the GBRA area"* presented to the board members of the Guadalupe-Blanco River Authority, Boerne, Texas, June 18, 2003.
53. *"Groundwater in Hays County"* presented to the Hays County Commissioners' Court, San Marcos, Texas, March 18, 2003.
52. *"The dynamics of developing a water policy"* keynote speech presented at the American Society of Environmental Scientists meeting, Baton Rouge, Louisiana, December 2, 2002.
51. *"The TWDB and the Edwards region"* presented at the 2002 U.S. Geological Survey national district chiefs meeting, San Antonio, Texas, November 20, 2002.
50. *"Groundwater in Kendall County"* presented at a public meeting held by the Cow Creek Groundwater Conservation District, Boerne, Texas, October 24, 2002.
49. *"The shotgun wedding of groundwater modeling and policy down in Texas"* invited speaker for the Georgia Southern University seminar series, Statesboro, Georgia, October 3<sup>rd</sup>, 2002.
48. *"Groundwater and modeling in North Texas"* presented to at the Denton County Water Summit, Denton, Texas, July 23, 2002.
47. *"Groundwater in Kinney County"* presented at the Kinney County Groundwater Conservation District, Brackettville, Texas, July 11, 2002.
46. *"Groundwater and Texas: Where is it and how much can be used?"* presented at the "Water: The Next Oil? Energy and Water Conference held by the American Groundwater Trust, Houston, Texas, March 5<sup>th</sup>, 2002.
45. *"Groundwater in Texas"* presented to the Industry Council on the Environment, Austin, Texas, September 20, 2001.
44. *"Groundwater 101"* presented to Groundwater Conservation Districts 101: Preserving Groundwater Through Local Management, Texas Groundwater Legal Defense & Education Fund, Austin, Texas, August 28, 2001.
43. *"Pumping test short course: From zero to pumping in two hours"* presented to the Stakeholders Advisory Forum for the Edwards-Trinity aquifer Groundwater Availability Model, Sonora, Texas, May 16, 2001.

42. *"Aquifers, wells, and availability"* presented to the Headwaters Underground Water Conservation District, Kerrville, Texas, January 24, 2001.
41. *"The Trinity model and its implications for recharge to the Edwards aquifer"* presented to the Blue Ribbon Panel on modeling the Edwards aquifer, Edwards Aquifer Authority, San Antonio, Texas, January 18, 2001.
40. *"Groundwater rules" Water: Today? and Tomorrow?* presented at a seminar for licensed water operators at the Blackland Income Growth conference held by the Texas Agricultural Extension Service, Waco, Texas, January 17, 2001.
39. *"GAM and the Senate Bill Plan"* presented at the Annual meeting of the Groundwater Management District Association, New Orleans, LA, January 9, 2001.
38. *"My life in water"* presented at Earth Science Day at the Bureau of Economic Geology, The University of Texas at Austin, presentations to middle school kids about careers in hydrogeology, October 10, 2000.
37. *"Groundwater availability modeling in Texas"* presented at the Texas Water Monitoring Congress, Austin, Texas, September 18, 2000.
36. *"Groundwater availability modeling in Texas"* presented at a Bureau of Economic Geology Seminar, The University of Texas at Austin, Austin, Texas, September 8, 2000.
35. *"Groundwater availability of the Trinity aquifer in the Hill Country- Predictions from a numerical groundwater flow model"* presented at the San Antonio Chapter of the Society of Independent Professional Earth Scientists, San Antonio, Texas, August 17, 2000.
34. *"Current and future science of groundwater management"* presented at the Seminar on Future of Groundwater Management in Texas, Capitol Building, Austin, May 2, 2000.
33. *"The Ogallala aquifer in the Hemphill County area"* presented at a public meeting for the Hemphill Groundwater Conservation District, April 10, 2000.
32. *"Predicted water-level declines in the Hill Country under drought-of-record conditions: Results from a numerical groundwater flow model"* presented at The University of Texas at San Antonio, Trinity Aquifer Modeling Project Meeting, March 17, 2000; Technical Committee, Plateau Water Planning Group, March 28, 2000.
31. *"Ongoing hydrogeologic studies in the Lower Rio Grande Valley"* presented at the Binational meeting between United States and Mexico, International Boundary Water Commission, El Paso, February 24, 2000.
30. *"A numerical groundwater flow model for the Trinity aquifer, Hill Country area"* presented to the Texas Groundwater Protection Committee, Austin, Texas, February 10, 2000.
29. *"A numerical groundwater flow model for the Trinity aquifer, Hill Country area"* presented to the Austin Geological Society, Austin, Texas, February 7, 2000.
28. *"A numerical groundwater flow model for the Trinity aquifer, Hill Country area"* presented to the Lower Colorado Regional Water Planning Group, Austin, Texas January 21, 2000.
27. *"Transmissivity and the scale effect in the Edwards aquifer"* presented to the Edwards Aquifer Authority, January 8, 2000.
26. *"A numerical groundwater flow model for the Trinity aquifer, Hill Country area"* presented to the Trinity Aquifer Advisory Committee, Boerne, Texas, December 13, 1999.

25. *"Transmissivity and the scale effect in the Edwards aquifer"* presented to the Southwest Research Institute, San Antonio, Texas, December 2, 1999.
24. *"Groundwater modeling and the status of the Trinity model for the Hill Country area"* presented to the Region J Regional Water Planning Group Retreat, Bandera, Texas, November 18, 1999.
23. *"MTBE plumathon study in Texas"* presented at the Petroleum Environmental Research Forum (PERF), Brea, California, December 2, 1998.
22. *"Contaminant plumes beneath leaking petroleum storage tank sites in Texas"* presented to the Austin Geological Society, Austin, Texas, November 2, 1998.
21. *"Numerical modeling of ground-water flow in the Ogallala aquifer in Texas: past, present, and future"* presented to the Panhandle Regional Planning Group, Amarillo, Texas, October 27, 1998.
20. *"Numerical modeling of ground-water flow and contaminant transport"* presented to Civil Engineering 394K, Groundwater Pollution and Transport, The University of Texas at Austin, April 20, 1998.
19. *"MTBE plumes in Texas"* presented to the Industry Council on the Environment, TPCA, Austin, Texas, July 16, 1998.
18. *"Edwards aquifer hydrology"* presented to the Commission National del Agua, Bureau of Economic Geology, August 17, 1998.
17. *"Spatial and Temporal Variability of MTBE Plumes Beneath Gasoline Stations in Texas"* presented at the BEG weekly seminar series, May 13, 1998.
16. *"Hydrocarbon plumes from leaking petroleum storage tank sites in Texas"* presented to the Texas Groundwater Protection Committee, Texas Natural Resource Conservation Commission, February 19, 1998.
15. *"Bugs and benzene: A regional scale study of plumes beneath leaking petroleum storage tank sites in Texas"* presented to the Hydrology/Hydrogeology Brown-Bag Seminar at The University of Texas at Austin, Department of Geological Sciences, December 5, 1997.
14. *"Natural stabilization of hydrocarbon plumes"* presented to the Industry Council on the Environment, Austin, Texas, October 16, 1997.
13. *"Plume studies at the Bureau of Economic Geology"* presented to the U.S. Environmental Protection Agency, Region 6, September 23, 1997.
12. *"The past, present, and future of plume studies at the Bureau of Economic Geology"* presented to the American Petroleum Institute Soil/Groundwater Division Technical Advisory Panel, Hyatt Regency, Austin, Texas, June 24, 1997.
11. *"Evidence of natural attenuation from a regional study of benzene plumes from leaking petroleum storage tank sites in Texas"* presented at the Bureau of Economic Geology weekly seminar series, Austin, Texas, May 14, 1997.
10. *"Determination and distribution of permeability in the Edwards aquifer"* presented to the Hydrology/Hydrogeology Brown-Bag Seminar at The University of Texas at Austin, Department of Geological Sciences, November 8, 1996.
9. *"History and hydrogeologic use of hand-dug wells"* presented to The University of Texas at Austin, Department of Geological Sciences, Austin, Texas, 1995.
8. *"Determination and geostatistical description of hydraulic properties in the Edwards aquifer"* presented at the Bureau of Economic Geology Seminar, 1995.

7. *“Historic ground-water production of the Cretaceous sandstone aquifers of North-Central Texas”* presented to the South West Association of American Geographers with Martina Blüm, 1994.
6. *“Determination of hydrogeologic properties from barometric efficiency: examples from the Edwards Aquifer, the Texas Panhandle, and the Austin Chalk”* presented at the Texas Ground Water Association's Annual Convention, January 25–28, 1994.
5. *“Numerical modeling of ground-water flow at the SSC site”* presented to the ad hoc committee on underground uses for the SSC, 1994.
4. *“Fracture hydrology studies in the Austin Chalk of North-Central Texas”* presented at the Chapman Conference on aqueous phase and multiphase transport in fractured rock, 1994.
3. *“The use of cross-sectional models for numerically simulating ground-water flow”* presented to The University of Texas at Austin, Department of Geological Sciences (Geology 391), Austin, Texas, 1994.
2. *“Use of hand-dug wells in hydrogeologic investigations”* Bureau of Economic Geology Technical Talk, 1993.
1. *“The latest advancements in measuring fracture aperture”* presented to The University of Texas at Austin, 1993.

## 2. Panels

xx. Dupnik, J. (moderator), Mace, R.E., and others, 2025, *Reuniting the Hydrologic Cycle—Groundwater-Surface Water Interaction: Water for Texas 2025 Conference*, Texas Water Development Board, January 17-29, Austin, Texas.

61. Barrera, F., Buzzini, W., Giner, M.-E., Mace, R.E. (moderator), and Riquelme, R., 2024, *Water Across the Americas—Challenges and Solutions: All Americas Summit*, hosted by Sister Cities International, San Antonio, Texas, May 30. [40]
60. Mace, R.E. (moderator), and Tueme, A., 2024, *CEO Keynote—The Flow of Water: panel at Earth X*, Dallas, Texas, April 23. [50]
59. Rosser, W. (moderator), Mace, R.E., Puig-Williams, V., and Rubinstein, C., 2024, *Interaction of Water—Ground, Surface, and Environment: Water—A Deep Dive on Texas' Most Precious Natural Resource*, hosted by the Texas Lyceum, Texarkana, Texas, February 2.
58. Worfe, P. (moderator), Mace, R.E., Niland, J., Rubinstein, C., and Sebesta, M., 2023, *Solutions to Texas’ Water Crisis*: presented at the 2023 Annual Conference, Texas Economic Development Council, Houston, Texas, October 11. [300]
57. Sansom, A. [moderator], Mace, R., Valdiva, E., and Scott, S., 2023, *Time to Grab the Bull by the Horns: Challenges and Opportunities for a Sustainable Lone Star State: Climate Science—The Good, the Bad, and the Ugly*; hosted by The Meadows Center for Water and the Environment; San Marcos, Texas, September 7. [300]
57. Bixler, P. [moderator], Guthrie, C., Leurig, S., Mace, R., and Walker, J., 2023, *Key Issues on Texas Water Planning and Conservation*: hosted by Planet Texas 2050, The University of Texas at Austin, September 6, virtual [100]
56. Mace, R.E. [moderator/organizer; missed due to covid], Beach, J., Britten, B., Cochran, K., and Fancher, K., 2023, *Correlative Rights or Correlative Wrongs?* Texas Groundwater Summit, Texas Alliance of Groundwater Districts, August 29. [200]

55. Cook, R., Mace, R., and Westbrook, G., 2023, Desired Future Conditions History: Milam and Burleson Counties Groundwater Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas, August 17. [300]
54. Dupnik, J. [moderator], Howe, B., Mace, R., Porter, C., Westbrook, G., 2023, The Vista Ridge Project—A case study on groundwater rights and regulation: Milam and Burleson Counties Groundwater Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas, August 17. [300]
53. Csekitz, J. [moderator], Mace, R.E., Stepney, L., and Tatum, S. [invited], 2023, Texas Water Needs [invited]: COMCON 2023, Gulf of Mexico Alliance; June 27, 2023, Houston, Texas [300]
52. Gershon, M. (moderator), Mace, R.E., McCarthy, E., 2023, Water resources: 2023 Texas Symposium on Climate Change and Energy Transition hosted by State Bar of Texas, Environmental & Natural Resources Law Section; Austin, Texas, April 28, 2023 [30].
51. Dupnik, J. (moderator), Howe, B., Mace, R.E., Porter, C., Westbrook, G., 2023, Finding a Balance—Groundwater Availability in Texas (panel), Water for Texas 2023 hosted by the Texas Water Development Board, Austin, Texas, January 25.
50. Puig-Williams, V. (moderator), Mace, R.E., Marez, J., and Marin, C., 2022, Building Sustainable Solutions for Texas Communities: held at Water and Wastewater Infrastructure Opportunities in Texas, hosted by Water Finance Exchange and RSAH<sub>2</sub>O; San Antonio, Texas; November 15 [100]
49. Mace, R.E. (moderator), Fernando, N., Murphy, V., and Nielsen-Gammon, J., 2022, Drought, Climate, and Impacts to Water Resources in Texas: TWCA Fall Conference hosted by the Texas Water Conservation Association; San Antonio, Texas; October 6 [300]
48. Puig-Williams, V. (moderator), Mace, R.E., and Sodek, M., 2022, How to save a spring (in three steps): Hill Country Alliance Leadership Summit, Austin, Texas, September 29 [200]
47. Collier, K. (moderator), Mace, R.E., Scott, S.B., and Walker, J., 2022, Parched—Are water woes and severe drought the new normal? The Texas Tribune Festival, Austin, Texas, September 24 [100]
46. Mace, R.E. (moderator), Bogar, D., Duckwitz, D., Gutierrez, F., Hinson, S., Jashinski, K., and McLung, T., 2022, Smart Water and Wastewater, held at the Digital 360 Summit, Austin, Texas, September 1 [40]
45. Puig-Williams, V. (moderator), Mace, R.E., Oliver, W., Sodek, M., and Trejo, D., 2022, The “S” Word—Sustainability in Groundwater, held at the 2022 Texas Groundwater Summit, hosted by the Texas Alliance of Groundwater Districts; San Antonio, Texas, August 30 [150]
44. Zabcik, B. (moderator), Barron, C., Dornak, N., Mace, R.E., Pasternak, D., and Scoggins, M., 2022, Hill Country Water Talk, hosted by the Save Barton Creek Association; San Marcos, Texas; August 27 [100].
43. Puig-Williams, V. (moderator), Mace, R.E., and Rubinstein, C., 2022, What is sustainability? presented at the Milam and Burleson Counties Groundwater Summit hosted by the Post Oak Savannah Groundwater Conservation District, Caldwell, Texas; August 18 [300].
42. Mace, R.E., and others, 2022, Panel on Groundwater Availability: 2022 TWCA Annual Convention hosted by the Texas Water Conservation Association, Fort Worth, Texas, March 10<sup>th</sup> [100]
41. Mace, R.E., (panel chair), Drebelbis, J., Oates, K., Scott, S., Stokes, B., and Wolf, C., 2022, Texas Conservation Challenges & Opportunities 2022 and Beyond:

- Texas Land Conservation Conference hosted by the Texas Land Trust Council, Austin, Texas, March 4 [70].
40. Schlessinger, S.R. (moderator), Mace, R.E., and Puig-Williams, V., 2021, Surface water, groundwater, and sustainability: presented at the Water, Texas film festival hosted by the Texas Water Foundation, November 16 [120].
  39. Armitano, E.W., Kelley, M.E. (moderator), Kowalski, T., Mace, R.E., and Urias, L., 2021, Two rivers named Colorado—Collective (and urgent) responses to protecting the Colorado River Basin: presented at Philanthropy Southwest 73rd Annual Conference, Oklahoma City, Oklahoma; October 21 [30].
  38. *Hermitte, S.M. (moderator), Mobley, W.H., Mace, R.E., and Young, M., 2021, Moving the needle on flood data visualization and open water data: Water for Texas 2021 Conference hosted by the Texas Water Development Board, Austin, Texas, September 29 [50].*
  37. *Mace, R.E. (moderator), Champagne, B., De La Cruz, J., Ikehata, K., Stockmayer, P., Williamson, S., 2021, Water & Smart Technologies: Digital 360 Summit 2021, The Premier Event for Industrial Digitalization, Decentralization, and Decarbonation, San Marcos, Texas, September 1 [15].*
  36. *Mace, R.E., de la Guardia, J., and Briher, C., 2021, Water: panel for Materials Science and Infrastructure Live Webinar hosted by Texas State University and Panama Pacifico, June 22 [120].*
  35. *Escobar, V., Flato, T., Langford, D., Mace, R., Puig-Williams, V., and Yeates, D., 2021, What's Next for Texas Water? webinar panel discussion hosted by the Environmental Defense Fund, the Hill Country Alliance, and the Headwaters Alliance; June 7, 2021.*
  34. *"Water Resources Career Panel" hosted by the Geography Department at Texas State University for the Department Reunion, panelist, April 23<sup>rd</sup>, 2021.*
  33. *"The Rise of Climate Science" interviewed Gerald North on his new book; April 20, 2020 [100]*
  32. *"Hill Country Living Festival + Rainwater Revival" co-host, sponsored by the Hill Country Alliance, October 24, 2020.*
  31. *"Truth About Water" moderator; Common Experience event; sponsored by Texas State University; San Marcos, Texas; September 25, 2019 [100]*
  30. *"Value of Data" panelist; Texas Groundwater Summit; sponsored by the Texas Alliance of Groundwater Districts; San Antonio, Texas; August 20, 2019; [250]*
  29. *"Going Big on Resilience in Texas" panelist; 4<sup>th</sup> Annual Summit: Tap Into Resilience; hosted by the WaterNow Alliance; Austin, Texas, March 27, 2019 [150]*
  28. *"The Nexus of Groundwater and Land Conservation" panelist; Texas Land Conservation Conference hosted by the Texas Land Trust Council, Austin, Texas, March 1, 2019 [100]*
  27. *"Are We Getting Mussel Fatigue? Invasive and Endangered Mussels in Texas" moderator; Water for Texas 2019 Conference hosted by the Texas Water Development Board; Austin, Texas; January 25, 2019 [100]*
  26. *"Groundwater law and management in Texas" panelist; Program Committee for The Cynthia and George Mitchell Foundation; Austin, Texas; September 17, 2018 [15]*
  25. *"Challenges to collaborations between cities, universities, and other institutions" panelist; Texas Water Research Network; Austin, Texas, September 14, 2018 [40]*
  24. *"Plenary: Has Direct Potable Reuse Finally Arrived?" panelist; 33<sup>rd</sup> Annual WateReuse Symposium; Austin, Texas; September 12, 2018 [125]*

23. “*Aquifer Boundaries*” panelist, Texas Groundwater Summit, Texas Alliance of Groundwater Districts; San Antonio, Texas; August 28, 2018 [300]
22. “*Planning the Next Generation of Urban Water Management*” panelist, 2018 Next Generation Water Summit; Santa Fe, New Mexico; May 1, 2018. [30]
21. “*Roundtable on Investing in Resiliency: An InvestH2O Forum*” hosted by InvestH2O; Austin, Texas; June 27, 2018 [25]
20. “*Water Roundtable: Flooding*” panelist, sponsored by the Water Roundtable; Texas State Capitol, Austin, Texas; June 7, 2018 [50]
19. “*Yakona: A conversation with Texas water experts*” panelist, sponsored by CUAHSI, Texas Commission on the Arts, and Texas Geosciences; Austin, Texas, April 27, 2018 [300]
18. “*The Water Roundtable Film Premiere post-showing panel on water supply and flood*” panelist, Austin, Texas (at the capitol), April 11, 2018. [45]
17. “*PIPES—Water Supply Infrastructure*” panelist, 2018 Kent Butler Summit, San Marcos, Texas; April 4, 2018. [300]
16. “*Impacts of Production in the Carrizo-Wilcox*” moderator, Milam and Burleson Counties Groundwater Summit, Post Oak Savannah Groundwater Conservation District, August 16, 2017, Caldwell, Texas.
15. “*Reuse, Sustainability, Resilience: Assuring Industries and Communities with Uninterruptable Water Supply*” moderator, InvestH2O—Disruptive Technologies and Innovative Investment Scenarios, AccelerateH2O, June 15–16, 2017, Austin, Texas.
14. “*ASR Management, Regulatory & Legal Framework*” panelist, ASR for Texas! held by Collier Consulting Inc, May 4, 2017, Austin, Texas.
13. “*Implementing Science-Based Policy in Texas*” panelist, Geoscience Advocacy of Texas, The University of Texas at Austin, April 5, 2017.
12. “*Aquifer Storage and Recovery: When, Where, and How?*” moderator, 2017 Water for Texas Conference, Texas Water Development Board, January 25, 2017.
11. “*The Future of Groundwater Law*” moderator, 2017 Water for Texas Conference, Texas Water Development Board, January 25, 2017.
10. “*I Live on Harvested Rain! Rainwater Homeowners Panel*” moderator, Rainwater Revival, Hill Country Alliance, Dripping Springs, Texas, November 5, 2016.
9. “*Groundwater/Surface Water*” moderator, Texas Groundwater Summit, Texas Alliance of Groundwater Districts, August 23, 2016, San Marcos, Texas.
8. “*Desired Future Conditions in Groundwater Management Area 12*” moderator, Milam & Burleson Counties Ground Water Summit, Post Oak Savannah Groundwater Conservation District, August 11, 2016, Caldwell, Texas.
7. “*An Exploration of the Long-Term Viability of the Carrizo-Wilcox Aquifer*” moderator, 2016 Texas Water Symposium, February 11, 2016; San Marcos, Texas.
6. “*Panel Discussion about Texas Water Policy*” panelist, 2014 North Texas Water Summit held by the North Texas Commission; on panel with Carole Baker (Texas Water Foundation) and Toby Baker (Commissioner at the Texas Commission on Environmental Quality), January 31, 2014, Irving, Texas.
5. “*Growth. Water. Transportation. Meeting the changing demands.*” panelist, Planofirst quarterly luncheon series, on a panel with State Representative Larry Phillips, November 6, 2013, Plano, Texas.
4. “*Let’s talk about water*” panel discussion hosted by State Representative Abel Herrero, Corpus Christi, Texas, October 16, 2013.



3. *“The day after Day and McDaniel: What the Texas Supreme Court’s landmark decision on groundwater means for water in Texas”* presented to the Austin Geological Society as part of a panel, Austin, Texas, December 2, 2012.
2. *“Water for Central Texas—Solving the Problem”* panelist, hosted by the Austin Board of Realtors, Austin, Texas, April 24, 2012.
1. Facilitator at the 2<sup>nd</sup> National Stakeholders Roundtable for the USGS Cooperative Water Program, Interstate Council on Water Policy, Austin, Texas, January 30–February 1, 2006.

### 3. Consultancies

1. Bredehoeft, J., Ford, J., Harden, B., Mace, R., and Rumbaugh, III, J., 2004, Review and interpretation of the Hueco Bolson groundwater model: prepared for El Paso Water Utilities, 18 p.

### 4. Workshops

22. Mace, R.E., 2021, *Water in Texas 101—Science, Regulatory Framework: short course for GEOGULF2021*, Austin, Texas, October 26.
21. *“Sustainable Urban Systems: Challenges to and Opportunities for Developing Resilience in Rapidly Growing Urban Corridors in Semi-Arid Regions,”* participant, hosted by The University of Texas at Austin with funding from the National Science Foundation, Austin, Texas, August 22-24, 2019.
20. *“Healthy Borders, Healthy Waters Educational Curriculum Workshop”* participant, hosted by New Mexico State University with funding from the National Science Foundation, Juriquilla, Mexico, August 8-9, 2019.
19. *“Using groundwater for drought resiliency in Texas”* presented at the EPA Workshop on Drought Resilience and Ground Water, Ada, Oklahoma, August 4, 2016.
18. *“Better to be active (rather than passive) when considering how soil moisture can help decision makers”* presented at the 4<sup>th</sup> NASA SMAP Applications Workshop and Tutorial, Austin, Texas, April 4, 2016.
17. *“Conserving water in a vintage (or any!) home”* presented at the Greening Your Vintage Home workshop hosted by Preservation Austin, Austin, Texas, July 25, 2015.
16. *“Will it rain in Texas?”* presented at the Workshop for Improving Sub-Seasonal and Seasonal Precipitation Forecasting for Drought Preparedness sponsored by the Western States Water Council and the California Department of Water Resources, San Diego, California, May 28, 2015.
15. *“The nexus between water planning and groundwater planning”* presented at a planning workshop sponsored by the Findings and Review Committee of the Lone Star Groundwater Conservation District, Conroe, Texas, March 2, 2015.
14. *“Extreme events require extreme policy”* presented to The 6th Austin International Hydrology Data Assimilation Workshop and the 3rd International Workshop on Data Assimilation for Operational Hydrology and Water Management of the Hydrologic Ensemble Prediction Experiment, Austin, Texas, September 10, 2014.
13. *“Drought, planning, and new agua!”* presented at the Science and Technology Workshop, U.S. Bureau of Reclamation, Austin, Texas, February 12, 2014.

12. *"The Texas perspective"* presented at the Water Supply Diversification Workshop, Water Research Foundation, Los Angeles, California, November 28, 2012.
11. *"Is there a future for water in Hays County?"* presented at the Hays Trinity Groundwater Conservation District Workshop, Dripping Springs, Texas, September 7, 2012.
10. *"A perspective on state water planning, drought, pricing, and supply"* presented at Drought and Water Today! A Workshop for Galveston County hosted by The Subsidence Districts, League City, Texas, September 13, 2011.
9. *"Aquifers 101"* presented at the Texas Water Development Board's Groundwater 101 Workshop for groundwater district managers and legislative staff, Austin, Texas, November 18, 2008.
8. *"Aquifers 101"* presented at the Groundwater 101 Workshop hosted by the Texas Water Development Board, Austin, Texas, August 28, 2007.
7. *"Acronym anagrams: GMA, MAG, and GAM—Groundwater availability for the next round of regional water planning"* presented to Lower Colorado Regional Water Planning Group, Regional Water Planning 101 Workshop held in Bastrop, Texas, November 8, 2006.
6. *"Water rights"* presented to "Environmental Regulations for Natural Gas: What's Next?" at a Dunaway Associates, L.P., workshop held in Fort Worth, Texas, October 10, 2006.
5. *"Please pass the salt—Using oil fields for the disposal of concentrate—A progress report"* presented at D-Salt Movers and Shakers – A TWDB workshop on desalination, Austin, Texas, March 25, 2004.
4. *"Groundwater modeling in the Edwards and Trinity aquifers"* presented to the Edwards-Trinity System Workshop, U.S. Geological Survey, Lady Bird Johnson Wildflower Center, Austin, Texas, August 20, 2001.
3. *"Groundwater in the Capital Area Planning Council Region"* presented at the Groundwater Planning Workshop held by the Capital Area Planning Council, Austin, July 7, 2000.
2. *"Benzene and MTBE aqueous-phase plume studies in Texas"* presented at a workshop (MTBE: Occurrence and Remediation) at the 1997 Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Remediation Conference, American Petroleum Institute and National Ground Water Association, Houston, Texas, November 12–14, 1997.
1. *"Water Rights and Conservation Workshop"* panelist, Texas Land Conservation Conference, March 2, 2016, Austin, Texas.

## 5. Other Works not in Print

Mace, R, 1984, The effects of copper compounds on tartrate crystal systems: Erie Community High School, Erie, Illinois, 33 p.

## 6. Expert Witness and Testimony

38. Invited testimony on groundwater pumping impacts to confined aquifers with emphasis on drawdowns in Burleson and Lee counties; House Natural Resource Committee, August 27, 2022, Austin, Texas.
37. Invited testimony on House Bill 4636 relating to the creation of the Val Verde County Groundwater Conservation District; providing authority to issue bonds;

- providing authority to impose fees, surcharges, and taxes; spoke about the hydrogeology of the county and what happened to Comanche Springs; House Natural Resource Committee, April 27, 2021.
36. Invited testimony on the Flood Infrastructure Fund and the National Flood Insurance Program to the Pecos County Commissioners' Court; Fort Stockton, Texas; January 13, 2020.
  35. Testimony on "House Bill 1311—Relating to the continuation and functions of the Texas Board of Professional Geoscientists;" Senate Committee on Business and Commerce, Texas Legislature, Austin, Texas, April 16, 2019.
  34. Invited testimony on "House Bill 4570—Relating to establishing an advisory board to study surface water and groundwater interaction;" House Committee on Natural Resources, Texas Legislature, Austin, Texas, April 9, 2019.
  33. Invited testimony on "Presentation of Funding for Market Research/Economic Assessment Involving Comanche Springs;" Middle Pecos Groundwater Conservation District; Fort Stockton, Texas; February 19, 2019 [30]
  32. Invited testimony to speak about surface water-groundwater interaction in Val Verde County and the Hill Country: House Committee on Natural Resources; Del Rio, Texas; September 13, 2018. [50]
  31. Invited testimony to speak about surface water-groundwater interaction on the Pedernales River: House Committee on Natural Resources, Brady, Texas, May 23, 2018. [100]
  30. Invited testimony to speak about Hurricane Harvey, the state flood plan, and TWDB flood activities: Senate Committee on Agriculture, Water, and Rural Affairs, New Caney, Texas, October 16, 2017.
  29. Invited testimony to speak about Hurricane Harvey, the state flood plan, and TWDB flood activities: House Committee on Natural Resource, Houston, Texas, October 16, 2017.
  28. Invited testimony to speak about drought and what the future holds: House Committee on Natural Resources, Austin, Texas, July 26, 2017.
  27. Resource witness (testified) on House Bill 2005 concerning studies of aquifer storage and recovery in Texas, House Committee on Natural Resources, Austin, Texas, March 23, 2017.
  26. Invited testimony on the projected effects of a five-year drought on surface water and groundwater resource in Texas: House Committee on Natural Resources, Austin, Texas, March 15, 2017.
  25. Invited testimony on the proposed state flood plan: the Senate Committee on Agriculture, Water, and Rural Affairs, Austin, Texas, March 6, 2017.
  24. Invited testimony on the implementation of House Bill 30, 84<sup>th</sup> Legislature, designation of brackish groundwater production zones: House Committee on Natural Resources, Austin, Texas, March 1, 2017.
  23. Invited testimony on water conservation plans, drought contingency plans, and groundwater management plans: Senate Committee on Agriculture, Water, and Rural Affairs, Austin, Texas, June 20, 2016.
  22. Invited testimony on petitions against desired future conditions: House Committee on Natural Resources, Austin, Texas, June 1, 2016.
  21. Invited testimony on flood planning activities: Senate Committee on Agriculture, Water, and Rural Affairs, Austin, Texas, May 23, 2016.
  20. Invited testimony on desalination: House Committee on Natural Resource for the Texas Legislature, Brownsville, Texas, April 26, 2016.

19. Invited testimony on the Texas Water Development Board and water availability: Committee on Special Purpose Districts, Austin, Texas, March 4, 2015
18. Invited testimony on water use as it relates to oil and gas, water demand projections, and brackish groundwater mapping: joint a meeting of the Committee on Energy Resources and the Committee on Natural Resources, Austin, Texas, February 23, 2015.
17. Testimony on desalination in Texas: House Committee on Natural Resources, Austin, Texas, March 22, 2012.
16. Testimony on the Agricultural Water Conservation Program: House Committee on Natural Resources, Austin, Texas, March 22, 2012.
15. Testimony on the status of water resources in Texas due to the drought: House Committee on Natural Resources, Austin, Texas, November 2, 2011.
14. Testimony on the status of water resources in Texas due to the drought: Senate Committee on Natural Resources and the Senate Committee on Agriculture and Rural Affairs, Austin, Texas, November 1, 2011.
13. Testimony on the Trinity Aquifer in Travis County: Travis County Commissioners Court, Austin, Texas, October 20, 2011.
12. Testimony on the desired future conditions process: House Committee on Natural Resources, Austin, Texas, February 22, 2011.
11. Testimony on the desired future conditions process: Senate Committee on Natural Resources, Austin, Texas, September 22, 2010.
10. Testimony on the implementation of House Bill 1763 (79R): House Committee on Natural Resources, Austin, Texas, April 15, 2010.
9. Testimony on water conservation plans, water loss audits, and drought: House Committee on Natural Resources, San Antonio, Texas, March 9, 2010.
8. Testimony on joint planning in groundwater management areas and groundwater availability modeling: Senate Committee on Natural Resources, Amarillo, Texas, August 5, 2008.
7. Testimony before the State Office of Administrative Hearings concerning the evidentiary hearing for the proposed designation of the North Trinity Aquifer Priority Groundwater Management Area by the Texas Commission on Environmental Quality; expert testimony on the hydrogeology of the area, numerical groundwater flow model of the Trinity Aquifer, water planning, Barnett Shale water use, and groundwater availability; Austin, Texas, May 13, 2008.
6. Testimony before the State Office of Administrative Hearings concerning the evidentiary hearing for the proposed designation of the Trinity Aquifer Priority Groundwater Management Area by the Texas Commission on Environmental Quality; expert testimony (two hours) on the hydrogeology of the area, numerical groundwater flow model of the Trinity Aquifer, water planning, Barnett Shale water use, and groundwater availability; Waco, Texas, May 1, 2008.
5. Testimony on joint planning in groundwater management areas: House Natural Resource Committee, January 15, 2008.
4. Testimony on groundwater production related to gas exploration activities in the Barnett Shale: Senate Natural Resource Committee, June 28, 2006.
3. Testimony on groundwater resources of the border area: Texas House of Representatives Committee on Border and International Affairs, March 19, 2003.
2. Expert on hydrogeology to the Attorney General's Office of Texas on a case concerning groundwater resources and colonias near El Paso, 2001.
1. Testimony before the State Office of Administrative Hearings concerning the evidentiary hearing for the Texas Natural Resources Conservation Commission

designation of Northern Bexar County as a Priority Groundwater Management Area; expert testimony (5.5 hours) on the numerical groundwater flow model of the Trinity aquifer in the Hill Country area, aquifer testing, and general hydrogeology; San Antonio, Texas, September 2000.

## 7. Media Mentions (partial list)

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150. Sweat, D., 2024, Texas State receives \$500,000 federal grant to study contamination along Texas beaches: The Daily Record [San Marcos], June 23.
149. Kendrick, T., 2024, State of the Water Luncheon held for chamber members: The Wimberley View, June 20, 2024, <https://www.wimberleyview.com/news/state-water-luncheon-held-chamber-members>
148. Ward, R.F., 2024, Houston officials scrapped post-Harvey flood control system before May overflow: Houston Chronicle, posted May 31, 2024 <https://www.houstonchronicle.com/news/houston-texas/environment/article/lake-conroe-houston-flooding-may-drop-drain-19445997.php>
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145. Liberatore, S., 2024, Scientists warn much America's groundwater could dry up by 2050: Microsoft News, posted May 17, 2024 <https://www.msn.com/en-us/weather/topstories/scientists-warn-much-america-s-groundwater-could-dry-up-by-2050/ar-BB1mAsQW>
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143. Remadna, N., and Stark, S., 2024, Why water flow continues to slow at Jacob's Well: KXAN, posted May 1, 2024; updated May 2, 2024 <https://www.kxan.com/news/jacobs-well-suspends-2024-swimming-season/>
142. Wassenich, D. (host), and Mace, R.E. (guest), 2024, Revisiting the Springs of Texas: Wonderful World, KZSM—San Marcos' Community Radio Station, San Marcos, Texas, April 9, 30 minutes, <https://player.captivate.fm/episode/ceb6a67f-cce9-409c-930b-4980f39729d9>
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  137. Elbein, S., 2024, Declining Texas springs point to possible risks for state water supplies: The Hill, March 8 <https://thehill.com/policy/energy-environment/4517255-texas-springs-decline-water-supplies-possible-risks-climate-change-groundwater-pumping/>
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40. Caputo, A., 2015, New forecast should improve Texas summer drought prediction: UTNews, The University of Texas at Austin, May 21<sup>st</sup>, [link](#).
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18. Weissmann, D., 2014, Texas town closes the toilet-to-tap loop—Is this our future? Marketplace (NPR), January 6<sup>th</sup>, [link](#).
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15. Hundley, W., 2013, Study raises concerns bout Dallas-Fort Worth groundwater levels, quality: Dallas News (Dallas Morning News), April 13<sup>th</sup>, [link](#).
14. Cortez-Neavel, B., 2012, Austin Artyards a 'no-limits' approach to landscaping: culture map Austin, April 17<sup>th</sup>, [link](#).
13. Fehling, D., 2012, Why Texas water planners worry about mussels: StateImpact (NPR), April 10<sup>th</sup>, [link](#).
12. Leon, K., 2013, Brownwood, Big Spring fight 'yuck factor' as they plan to reclaim toilet water for human consumption: Dallas Morning News, November 19<sup>th</sup>, [link](#).
11. Anonymous, 2012, Five key lessons (and challenges) from the Great Texas drought: UTNews, September 10<sup>th</sup>, [link](#).
10. Tesague, M., 2012, Lege should not waste 'a good drought,' water experts say: Houston Chronicle, May 22<sup>nd</sup>, [link](#).
9. Fehling, D., 2012, Why Texas water planners worry about mussels: StateImpact (NPR), April 10<sup>th</sup>, [link](#).
8. MacCormack, Z., 2012, Rainwater harvesting growing in popularity: MySA, March 29<sup>th</sup>, [link](#).
7. Fernandez, M., 2012, Texas drought forces a town to sip from a truck: The New York Times, February 3, [link](#).
6. WATRnews, 2012, Interview with Dr. Robert Mace, Texas Water Development Board: [video](#).
5. Spector, D., 2011, The Texas drought is so bad residents may have to start drinking sewage water: Business Insider, November 21, [link](#).
4. Henry, T., 2011, Five things you might not know about water in Texas: StateImpact (NPR), November 15<sup>th</sup>, [link](#).
3. Kever, J., 2011, Reclaimed water stretches the supply, with 'yuck' factor: Houston Chronicle, November 14<sup>th</sup>, [link](#).

2. Barajas, M., 2011, Texas fracking critics tour the Eagle Ford as complaints of contamination surface: San Antonio Current, June 21<sup>st</sup>, [link](#).
1. Galbraith, K., 2010, Panhandling for water: The Texas Tribune, June 17<sup>th</sup>, [link](#).

## C. Grants and Contracts

### 1. External Grant and Contract Proposals Under Consideration

“Changing Texas for a Changing Climate: Year 2” funded by The Meadows Foundation (\$500,000 for Year 1; 2020-2022)

### 2. Funded External Grants and Contracts

#### *Active*

- “Correlative Rights for Sustainable Groundwater Management and Spring Restoration II” Hershey Foundation (funded for \$35,000; 2024–2025)
- “Changing Texas for a Changing Climate: Providing Texans with Actionable, Local Information on Climate Change’s Expected Impacts on Water;” submitted to U.S Representative Lloyd Doggett’s office (funded for \$2,000,000; 2023–2025)
- “Changing Texas for a Changing Climate: Providing Texans with Actionable, Local Information on Climate Change’s Expected Impacts on Water;” National Oceanic and Atmospheric Administration (funded for \$2,000,000; 2022–2024)
- “A tool to assess how the Blanco River interacts with its aquifers” funded through gifts (\$710,451; 2019–2023)

#### *Completed*

- “Correlative Rights for Sustainable Groundwater Management and Spring Restoration;” Hershey Foundation (funded for \$50,000; 2022–2023)
- “Changing Texas for a Changing Climate: Year 1” funded by The Meadows Foundation (\$500,000 for Year 1; 2020-2022)
- “Groundwater Availability Trends in Bastrop, Caldwell, Hays, Lee, Travis, and Williamson Counties” funded by Travis County, August 2020 to March 2021 (\$20,000)
- “How Much Groundwater is Being Pumped Sustainably?” funded by The Cynthia and George Mitchell Foundation, June 2020 to August 2021 (\$44,000)
- “Science, Policy, and Economics to Advance the Sustainable Management of Water 2021 and Ecosystems in Texas” funded by The Cynthia and George Mitchell Foundation, June 2020 (\$300,182)
- “Bringing back Comanche Springs” funded through the City of Fort Stockton and the National Fish and Wildlife Foundation (\$150,000)
- “Frac Sand Facilities and Their Potential Effects on the Groundwater Resources of the Monahans-Mescalero Sand Ecosystem, Permian Basin, Texas” funded by the Texas Comptroller of Public Accounts (\$25,000)
- “Natural resource trends in Texas” funded through Texas 2036 (\$170,000)

- "Please pass the salt: Using oil fields for the disposal of concentrate from desalination plants" submitted as a pre-proposal to the Bureau of Reclamation, January 2003 (funded, \$100,000).
- "A Ground-Water Model for the Ogallala Aquifer" Panhandle Regional Water Planning Group, funded, January 1999, \$360,000.
- "A ground-water management model for the Edwards aquifer, Barton Springs segment," Lower Colorado Regional Water Planning Group, Region K, funded January 1999, \$69,564.
- "A Permeability and Storativity Data Base for the Carrizo-Wilcox Aquifer in Texas" Texas Water Development Board, funded August 1998, \$77,000.
- "Spatial and temporal variability of MTBE plumes in Texas" additional funding for analysis from Texas Commission on Environmental Quality, funded September 1998, \$7,000.
- "Hydrocarbon plumes beneath landfill and industrial sites" American Petroleum Institute, funded September 1998, \$25,000.
- "TWDB flow model training: Applying numerical ground-water flow models to water resource issues" Texas Water Development Board, funded January 1999, \$11,736.00

### **3. Unfunded External Grant and Contract Proposals**

- Azam, H., Beherea, P., Nitsche, L., and Dekissa, T., (University of the District of Columbia); Widdowson, M., and Stepheson, K., (Virginia Tech); Rahman, S.M., (Bangladesh University of Engineering and Technology); and Mace, R. (Texas State University), 2022, "Multi-Criteria Decision Support Framework and Planning Level Analysis Tool to Evaluate Cost Effective Enhanced Aquifer Recharge" submitted to the U.S. Environmental Protection Agency (\$1,926,421 [\$25,000])
- "An Interactive Dashboard for Texans to Assess Climate Change Impacts to Water Resources" in partnership with the U.S. Geological Survey Texas Oklahoma; submitted to the South Central Water Science Climate Center; status: invited to submit full proposal (\$450,000)
- "Water Sustainability of an Expanding Urban-Rural Interface in an Environmentally Sensitive Area—The Interstate-35 Growth Corridor and the Karstic Landscapes of the Texas Hill Country" submitted to the National Science Foundation (\$149,981)
- "Changing Texas for a Changing Climate" submitted to the Lone Star Prize, Lyda Hill Philanthropies, July 2020 (\$10,000,000)
- "Water Security: A Blueprint for Texas Leaders" submitted to the Lone Star Prize, Lyda Hill Philanthropies, July 2020 (\$10,000,000)
- "A ground-water management model for the Edwards aquifer" submitted to the Edwards Aquifer Authority, July 1997.
- "Extent, Mass, and Fate of Hydrocarbon Plumes Resulting from Leaking Petroleum Storage Tank Sites Located in Fractured and Karst Limestone Aquifers." submitted to Texas Higher Education Coordinating Board, May 1997.
- "WITCH: A Water-Resources Investigation Technique to Condense Hydrogeologic Data for Locating Conjunctive Use Well Fields," submitted to the Texas Higher Education Coordinating Board, May 1997.
- "DRASTIC mapping and Texas Army National Guard Sites" submitted to the Texas Adjutant General's Department, Texas Army National Guard, June 1996.

- “Variable diffusivity effects on transport in fractured porous media” submitted to the Texas Higher Education Coordinating Board, 1995.
- “Aquifer response modeling in fractured and karst aquifers using neural networks” submitted to the Texas Higher Education Coordinating Board, 1995.
- “Variability of the diffusion coefficient on fracture surfaces and its effect on solute transport” submitted to The Petroleum Research Fund, American Chemical Society, January 1996.
- “Ground-water management model for the Ogallala Aquifer” submitted to the Ogallala Regional Water Management Team, February 1996. (with Bill Mullican)
- “Development of the Next Generation Model of the Edwards Aquifer” submitted to the Texas Water Development Board, February 1996. (with Sue Hovorka)
- “Natural fracture analysis in a gas reservoir analog” submitted to the Gas Research Institute, November 1995.
- “Hydrogeologic characterization in support of optimizing the placement of bioremediation barriers in petroleum contaminated soil” submitted to the Environmental Protection Agency through the New Mexico Petroleum Research and Recovery Center, 1994.
- “Effect of variable diffusivity on contaminant transport through fractured porous rock” submitted to the Department of Defense through the Army and the Air Force, 1994.
- “Determination of fracture aperture using mini-permeameters” ATP submitted to the Coordinating Board, 8 p. (submitted under Alan R. Dutton)

## **D. Fellowships, Awards, Honors**

- Alpha Chi Favorite Professors, 2022.
- Teaching Award of Honor, Texas State Alumni Association, 2020.
- Rainmaker Award, Texas Water Foundation, Austin, Texas, May 7, 2019.
- AccelerateH2O, inducted into the Texas Water Innovation Hall of Fame, Austin, Texas, June 15, 2017
- 2014 Bureau of Economic Geology Alumnus of the Year Award, presented at the Jackson School Alumni Reception at the AAPG Annual Meeting in Denver, Colorado, June 1, 2015
- Partners in Conservation Award, presented by the U.S. Secretary of the Interior to the Edwards Aquifer Recovery Implementation Program, January 2014; as part of this large effort, I served as a member of the Edwards Aquifer Area Expert Science Subcommittee from 2008–2012 and chairman from 2009–2012
- Rosetta Stone Award, presented by Haskell Simon, rice farmer, for “...bringing an understanding of complex and esoteric information and data to the public regarding water issues” at a TWDB Board meeting, 2010
- Kick Ass Award presented by local Austin author Spike Gillespie, 2007
- Distinguished Texas Hydrogeologist 2003–2004, presented at the Texas Ground Water 2004 Conference, November 18, 2004
- 2004 Research Conservation Award, Barton Springs/Edwards Aquifer Conservation District, with others, on work to help the district define groundwater availability
- Conservation Award in Research, Barton Springs/Edwards Aquifer Conservation District, with Dr. Bridget Scanlon, for work on the numerical groundwater flow model on the Barton Springs segment of the Edwards aquifer, 2000



Undergraduate Geology Scholar, New Mexico Institute of Mining and Technology, 1989  
Presidential Scholarship, New Mexico Institute of Mining and Technology, 1985–1989  
Scholarship, Society of Exploration Geophysicists, 1985–1989  
Literary Award, Erie High School, 1985  
Science Award, Erie High School, 1985  
National Honor Society, 1984–1985  
Illinois State Scholar, 1985  
Illinois Science Teachers Association Science Award, 1985

## **IV. SERVICE**

### **A. Institutional**

#### **1. University**

Member, Steering Committee to assist in the formation and development of the new West Texas Water Research Center at Sul Ross State University (2024–present)  
Member, Advisory Board, National Hantush-Deju Hydrologic Innovation Center, New Mexico Institute of Mining and Technology (2022–present)  
Member, Continuity of Research Work Group (COVID-19), Texas State University (2020-2021)

#### **2. College**

Advisory Committee for the Environmental Science & Technology Program at Austin Community College, member (2016–2018)

#### **3. Department/School**

Search Committee for Associate Vice President for Research and Development, Office of Research and Sponsored Projects (2022–2023)  
Search Committee for the Meadows Endowed Professor in Environmental Flows, Biology Department (2022–2024)  
Search Committee for the Meadows Endowed Chair in Water Conservation, Geography Department (2021–2022)  
Diversity and Inclusion Committee, Geography Department, Texas State University-San Marcos (2019-2020)  
Colloquium Committee, Geography Department, Texas State University-San Marcos (2018-2019)

### **B. Professional**

#### **B1. Affiliations**

American Association of Geographers  
Geological Society of America, member (# 9291695)  
John F. Mann Mentor in Applied Hydrogeology (2005, 2010)

Texas Ground Water Association, member (#17447)  
 Fellow, Center for Public Policy Dispute Resolution, The University of Texas School  
 of Law (2006–present)  
 Multi-State Salinity Coalition (2012–present)  
 President (2013–2018)  
 National Ground Water Association, member (# 146564; ~1992–present)  
 2019 Ground Water Summit Organizing Committee, member (2018-2019)  
 Board Member (Director), Scientists and Engineers Board (2011–2015)  
 2013 Ground Water Summit Organizing Committee, co-chair (2012–2013)  
 2012 Ground Water Summit Organizing Committee (2011–2012)  
 This Conference Task Force (2008)  
 Water Quality Working Group, reporting to the National Science and Technology  
 Council, Executive Office of the President (2005)  
 Monitoring Work Group, reporting to the National Science and Technology  
 Council, Executive Office of the President (2005)  
 Austin Geological Society  
 Member (1992–present)  
 Bulletin Editor (2005–2012); started bulletin  
 President (2001–2002)  
 President-elect (2000–2001)  
 Treasurer (1998–2000)  
 Executive Committee (1998–2003, 2009–2012)  
 Texas Water Journal  
 Founding member  
 Board member (2009–present)  
 Editor (2011–2021)  
 Gulf Coast Association of Geological Societies  
 Executive Committee Member (2000–2002)  
 Chairman, Exhibits Committee, Gulf Coast Association of Geological Societies  
 for the 2002 annual meeting in Austin (2000–2002)

## **B2. Committees**

Member, Project Bedrock (2023–present)  
 Member, The Groundwater Roundtable, Texas Wildlife Association (2022–present)  
 Member, Texas Produced Water Consortium (September 1, 2021–present)  
 Co-Chair, Standards Subcommittee  
 Member, Water Conservation Advisory Council (2021–present)  
 Member, Water Conservation Expert Panel, Harris-Galveston Subsidence District  
 (2021–present)  
 Member, San Marcos Comprehensive Plan Steering Committee, City of San Marcos  
 (2020–present)  
 Member, Environment and Resource Protection Subcommittee (2022–present)  
 Member, Texas Water Conservation Association (2018–present)  
 Member, Groundwater Committee (2018–present)  
 Co-Chair, Desired Future Condition Subcommittee (2020)  
 Member, Academic Research Cohort, Philanthropy Southwest (2020–present)  
 Member, Advisory Group, Southern Plains Drought Early Warning System (2020–  
 present)  
 Member, Advisory Council, Texas Water Foundation (2020–present)

Member, Advisory Board, Texas Agricultural Land Trust (2019–present)

Member, Austin Integrated Water Resource Planning Community Task Force, City of Austin (councilmember appointee; 2017–present)

Member, Technical Advisory Committee of Headwaters at the Comal (2018–present)  
Chair (2019–present)

Board member, Texas Land Trust Council (2018–present)  
Chair-Elect (2020–present)

Member, Texas Water Research Network (2017–present)  
Leadership Team (2018–present)

Member, Implementation Committee, Edwards Aquifer Habitat Conservation Plan (2018–present)  
Secretary (2019–present)

Member, Austin Integrated Water Resource Planning Community Task Force; appointed by Councilmember Leslie Pool, District 7 (2017–present)  
Vice-Chair (2021–present)

Member, Advisory Council, Geology Foundation, Jackson School of Geosciences, The University of Texas at Austin (2018–present)

Member, Advisory Council, Environmental Science Institute (2017–present)

Member, Texas Land Trust Council Board (2018–2024)  
Chair (2022–2024)

Member, Groundwater Science Advisory Committee, Houston Advanced Research Center (2020–2021)

Member, Science Advisory Board, U.S. Environmental Protection Agency (2015–2121; first appointed under the Obama Administration; reappointed under the Trump Administration)

Member, Springflow Stakeholders Group, Hays-Trinity Groundwater Conservation District (2018–2020)

Member, Committee for the National Academies of Sciences, Engineering, and Medicine on the study “Future Water Resource Needs for the Nation: Water Science and Research at the U.S. Geological Survey” (2017–2018)

Member, Technical Advisory Committee, Water Research Foundation (2014–2016)

Member, Edwards Aquifer Habitat Conservation Plan Adaptive Management Science Committee, Edwards Aquifer Authority (2012–2017)

Member, U.S. Geological Society Cooperative Program Subcommittee, Western States Water Council (2010–2017)

Member, Advisory Committee on Water Information (2009–2017)

Member, Water Conservation Advisory Council (2009–2017)

Chair, Texas STATEMAP Project Advisory Panel (2003–2017)

Member, Texas River Scorecard Advisory Group, The Nature Conservancy (2013–2015)

Member, TEEX (Texas A&M Engineering Extension Service) Economic Development Advisory Board (2013–2014)

Member, Water Supply Enhancement Program Stakeholder Committee, Texas State Soil and Water Conservation Board (2012–2014)

Member, Contemporary Groundwater Issues Council, Groundwater Resources Association of California (2011–2014)

Member, Water Information Management and Data Collection Subcommittee, Western States Water Council (2010–2012)

Member, Water Resources and Energy Subcommittee, Western States Water Council (2010–2012)

Alternate, Rio Grande Project Salinity Management Coalition (2009–2015)  
Member, Pecos River Salinity Advisory Committee, Pecos River Compact  
Commission (2009–2014)  
Edwards Aquifer Area Expert Science Subcommittee, Edwards Aquifer Recovery  
Implementation Program  
Chair, 2009–2012  
Member, 2008–2012  
Member, High Plains Workgroup, Western States Water Council (2010–2012)  
Member, Barton Springs/Edwards Aquifer Conservation District, Policy Advisory  
Committee (2009–2011)  
Vice Chair, Texas Groundwater Protection Committee (2005–2009)  
Member, FutureGen Texas Task Force (2005–2008)  
Member, Jackson School Water Initiative Committee (2005–2008)  
Member, Technical Advisory Work Group for the Edwards Aquifer Optimization  
Program (1999–2007)  
Member, Aquifer Sciences Advisory Panel, Edwards Aquifer Authority (2006–2007)  
Member, Groundwater Modeling Advisory Panel, Edwards Aquifer Authority (2000–  
2006)  
Member, Groundwater Modeling Advisory Team, Barton Springs/Edwards Aquifer  
Conservation District, (2003–2005)  
Member, Groundwater Modeling Review Panel, Hudspeth County Underground  
Water Conservation District No. 1 (2001–2002)  
Member, Barton Springs/Edwards Aquifer Conservation District Advisory  
Committee for Hydrogeologic Studies (1995–1996)

### **B3. Peer Reviews**

[since 2019; years listed more than once mean that I reviewed multiple papers for that journal]

peer review of “Hydrogeology and Simulation of Groundwater Flow and Land-  
Surface Subsidence: Documentation of the Gulf Coast Land Subsidence and  
Groundwater-Flow Model” for the U.S. Geological Survey (2022)  
Annals of the American Association of Geographers (2019)  
International Journal of Environmental Research and Public Health (2020, 2021)  
Groundwater (2023)  
Journal of Critical Infrastructure Policy (2021)  
Land (2020, 2023)  
Texas Water Journal (2021, 2021, 2022, 2023, 2023)  
Water (2022)  
Water Alternatives (2020, 2020)

### **C. Community**

Steering Committee Member, Heritage Neighborhood Association, 1998-2008.

### **D. Service Honors and Awards**

Texas Rainmaker Award given by the Texas Water Foundation, May 7, 2019.

Distinguished Service Award, presented by the Austin Geological Society on August 31, 2009  
Technology Award, presented by the National Ground Water Association on December 6, 2006, and the Association of Ground Water Scientists and Engineers on December 7, 2006  
New Mexico Tech Service Award, New Mexico Institute of Mining and Technology, 1989

#### **E. Professional Development (since 2018)**

“Helping Graduate Students Dealing with Procrastination, Perfectionism, and Mental Health Issues” Faculty Development, Texas State University, September 15, 2022.  
“1-Basic Course, Social and Behavioral Research, Human Research” certified by CITI Program, May 13, 2021, Record ID 42493254  
“20<sup>th</sup> Annual Changing Face of Water Law” hosted by TexasBarCLE; San Antonio, Texas; February 21, 2019.  
“9<sup>th</sup> Annual Central Texas Water Conservation Symposium” hosted by the Central Texas Water Efficiency Network; Austin, Texas; January 31, 2019.  
“Best practices for inclusive search” presented by Professional Development, Human Resources, Texas State University; San Marcos, Texas; December 11, 2018.  
“A deeper look at focus groups” presented by Professional Development, Human Resources, Texas State University, November 7, 2018.  
“Texas Stream Team” presented by The Meadows Center for Water and the Environment, Texas State University, August 31, 2018.  
“Best practices for seeking external funding” presented by Faculty Development, Texas State University, March 6, 2018.  
“Pursuing funding from foundations and private sources” presented by Faculty Development, Texas State University, February 13, 2018.  
“Using social media to pursue and promote your professional agenda” presented by Faculty Development, Texas State University, February 12, 2018.