

Lucas F. Gregory  
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### Professional Interests and Expertise:

Dr. Lucas Gregory serves as an associate director of research – physical sciences for the Texas Water Resources Institute. He provides leadership for the institute’s watershed assessment, planning, and management team, is working to increase water quality and human health research, leads the institute’s team engaged in water monitoring data collection, management, and assessment efforts, and is the agency lead for Texas A&M AgriLife on the Ogallala Aquifer Program. Gregory engages in water resources research and leads development of inter-disciplinary teams to address priority water issues. His primary research interests are (1) bacteria fate and transport in aquatic and soil environments; (2) watershed assessment, planning, management, and sustainability; (3) instream water quality monitoring; (4) best management practice efficacy evaluation and testing; (5) improving understanding of human health implications of emerging water quality issues; (6) improving water quality through stakeholder engagement; and (7) PFAS distribution, fate and transport in the environment.

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### Education

<b>Texas A&amp;M University</b> <i>Ph.D. Water Management &amp; Hydrological Science</i> <i>Advisor: R. Karthikeyan (chair); TJ Gentry, J Aitkenhead-Peterson, RD Harmel</i> <i>“Influences of External Factors on <i>Escherichia coli</i> Distribution, Concentration, Sources, and Fate in Secondary Environments”</i>	<b>College Station, TX</b> <i>Jan. 10 – May 16</i>
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<b>Texas A&amp;M University</b> <i>Master of Science: Water Management &amp; Hydrological Science</i> <i>Advisor: Bradford Wilcox (chair); C Munster, MK Owens</i> <i>“Water Budgets and Cave Recharge on Juniper Rangelands in the Edwards Plateau”</i>	<b>College Station, TX</b> <i>Jan 04 - May 06</i>
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<b>Texas A&amp;M University</b> <i>Major: B.S in Agricultural Systems Management</i> <i>Minor: Business Administration</i>	<b>College Station, TX</b> <i>Aug. 99 – Dec. 03</i>
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### Professional Experience

<b>Texas Water Resources Institute</b> <i>Associate Director &amp; Quality Assurance Officer</i> <ul style="list-style-type: none"><li>• Provide administrative direction for the TWRI team</li><li>• Lead the institute’s watershed restoration and protection program</li><li>• Provide leadership to AgriLife faculty engaged in the Ogallala Aquifer Program and provide overall input to USDA-ARS leadership on program direction</li></ul>	<b>College Station, TX</b> <i>January 2022 - present</i>
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- Provide direction and leadership for develop water and human health focused research program
- Lead development, funding acquisition, implementation and operation of natural resource management programs state-wide
- Facilitate and develop inter-disciplinary project proposals with university faculty teams and agency staff
- Mentor, supervise and manage TWRI technical staff Develop and review quality assurance project plans to ensure quality data collection, analysis, storage and dissemination

**Texas Water Resources Institute**

**College Station, TX**

*Assistant Director*

*September 2020 – January 2022*

- Provide administrative direction for the TWRI team
- Develop water and human health focused research program
- Lead development, funding acquisition, implementation and operation of natural resource management programs state-wide
- Facilitate and develop inter-disciplinary project proposals with university faculty teams and agency staff
- Supervise and manage water quality monitoring and watershed assessment team
- Mentor, manage and train graduate and undergraduate student researchers

**Texas Water Resources Institute**

**College Station, TX**

*Senior Research Scientist & Quality Assurance Officer*

*March 2018 – August 2020*

- Develop water and human health focused research programming
- Lead development, funding acquisition, implementation and operation of natural resource management programs state-wide
- Facilitate and develop inter-disciplinary project proposals with university faculty teams and agency staff
- Lead stakeholders to develop watershed-based plans to restore water quality
- Supervise and manage water quality monitoring and watershed assessment team
- Develop and review quality assurance project plans to ensure quality data collection, analysis, storage and dissemination
- Mentor, manage and train graduate and undergraduate student researchers
- Train volunteers to perform water quality monitoring data collection

**Texas Water Resources Institute**

**College Station, TX**

*Research Scientist & Quality Assurance Officer*

*September 2016 – March 2018*

- Lead development, implementation and operation of natural resource management programs state-wide
- Facilitate and develop inter-disciplinary project proposals with university faculty teams and agency staff
- Research bacteria fate and transport in aquatic and soil environments
- Develop water quality managements plans to restore water quality

- Conduct water quality monitoring and watershed assessments
- Develop and review quality assurance project plans to ensure quality data collection, analysis, storage and dissemination
- Mentor, manage and train graduate and undergraduate student researchers
- Train volunteers to perform water quality monitoring data collection

**Texas Water Resources Institute**

**College Station, TX**

*Project Specialist & Quality Assurance Officer*

*March 2012 – September 2016*

- Coordinate and develop inter-disciplinary project proposals with university faculty teams and agency staff
- Conduct bacteria fate and transport research in aquatic and soil environments
- Manage and direct multiple water quality assessment and remediation projects
- Lead stakeholders to develop watershed-based plans to restore water quality
- Conduct water quality monitoring and watershed assessments
- Develop and review quality assurance project plans to ensure quality data collection, analysis, storage and dissemination
- Train graduate and undergraduate student researchers
- Train volunteers to perform water quality monitoring data collection

**Texas Water Resources Institute**

**College Station, TX**

*Project Manager & Quality Assurance Officer*

*July 2009 – March 2012*

- Coordinated and developed grant proposals with university faculty and agency staff
- Manage multiple water quality and quantity related research projects
- Lead stakeholders to develop watershed-based plans to restore water quality
- Develop institute's water quality monitoring program
- Responsible for fiscal oversight, project scheduling and product delivery
- Serve as a liaison and coordinates efforts with funding agencies and researchers
- Work closely with state agencies to develop programs that address relevant water quality concerns
- Develop and reviewed quality assurance project plans to ensure quality assured data collection, analysis, storage and dissemination

**Texas Water Resources Institute**

**College Station, TX**

*Project Manager*

*June 2006 – July 2009*

- Coordinate and develop grant proposals with university faculty and agency staff
- Manage multiple water quality and quantity related research projects
- Conduct water quality monitoring and watershed assessments
- Responsible for fiscal oversight, project scheduling and product delivery
- Complete reporting requirements for the funding agencies
- Serve as a liaison and coordinates efforts with funding agencies and researchers
- Works closely with state agencies to develop programs that address relevant water quality concerns

**Texas Agricultural Experiment Station**  
*Graduate Student / Research Assistant*

**College Station, TX**  
*October 2003- May 2006*

- Conducted field research to assess ecological impacts of brush control on the hydrologic cycle and evaluate its potential for water supply enhancement
- Collected and analyzed data to assess variations in the water budget as a result of excess brush
- Constructed, operated, and maintained rainfall simulation equipment to reproduce natural rainfall events
- Managed student workers to successfully operate field research efforts

## **Publications**

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### Refereed Publications:

- 1.
2. Liu, Y; Shields, MR; Puthigai, S, Gregory, LF; Berthold, TA. 2024. Distribution of Per- and Polyfluoroalkyl Substances in the Rapidly Urbanizing Arroyo Colorado Watershed, Texas. *Journal of Contemporary Water Research & Education*. 180: 23-36. <https://doi.org/10.1111/j.1936-704X.2024.3405.x>
3. Wagner, KL; Gregory, LF; Gerlich, JA; Rhodes, EC; DeVilleneuve, S. 2023. Edge-of-Field Runoff Analysis following Grazing and Silviculture Best Management Practices in Northeast Texas. *Water* 15(20): 3540. doi: 10.3390/w15203537
4. Schramm, M; Gitter, A; Gregory, LF. 2022. Total Maximum Daily Loads and *Escherichia coli* Trends in Texas Freshwater Streams. *Journal of Contemporary Water Research & Education* 176: 36-49.
5. Gitter, A; Mena, KD; Wagner, KL; Boellstorff, DE; Borel, KE; Gregory, LF; Gentry, TJ; Karthikeyan, R. 2020. Human Health Risks Associated with Recreational Waters: Preliminary Approach of Integrating Quantitative Microbial Risk Assessment with Microbial Source Tracking. *Water* 12(2): 327.
6. Mukherjee, M; Gentry, TJ; Mjelde, H; Brooks, JP; Harmel, RD; Gregory, LF; Wagner, KL. 2020. *Escherichia coli* Antimicrobial Resistance Variability in Water Runoff and Soil from a Remnant Native Prairie, an Improved Pasture, and a Cultivated Agriculture Watershed. *Water* 12(5): 1251.
7. Gregory, LF; Harmel, RD; Karthikeyan, Wagner, KL; R; Gentry, TJ; Aitkenhead-Peterson, JA;. 2019. Elucidating the Effects of Land Cover and Usage on Background *E. coli* Sources in Edge-of-Field Runoff. *Journal of Environmental Quality* 48: 1800-1809.

8. Gregory, LF; Gitter, A; Muela, S; Wagner, KL. 2019. Should Contact Recreation Water Quality Standards be Consistent Across Hydrological Extremes? *Journal of Contemporary Water Research & Education* 166: 12-23.
9. Gregory, LF; Karthikeyan, R; Aitkenhead-Peterson, JA; Gentry, TJ; Wagner, KL; Harmel, RD. 2017. Nutrient Loading Impacts on Culturable *E. coli* and other Heterotrophic Bacteria Fate in Simulated Stream Mesocosms. *Water Research* 126: 442-449.
10. Wagner, KL, Gregory, LF, Berthold, TA. 2016. Volume 1, Chapter 1 – Water Quality Management. In D. Chen (ed.), *Sustainable Water Management*, Taylor & Francis Group, CRC Press, Boca Raton, FL.
11. Harmel, RD, Wagner, KL, Martin, E, Smith, D, Wanjugi, P, Gentry, T, Gregory, LF, Hendon, T. 2016. Effects of field storage method on *E. coli* concentrations measured in storm water runoff. *Environmental Monitoring and Assessment*. 188(3): 170.
12. Gregory, LF, Blumenthal, B, Wagner, KL, Borel, KE, Karthikeyan, R. 2013. Estimating on-site sewage facility density and distribution using geo-spatial analyses. *Journal of Natural and Environmental Science*. 4(1): 14-21.
13. Borel, KE, Karthikeyan, R, Smith, PK, Gregory, LF, Srinivasan, R. 2012. Estimating daily potential *E. coli* loads in Rural Texas Watersheds Using Spatially Explicit Load Enrichment Calculation Tool (SELECT). *Texas Water Journal*. 3, 42-58.
14. Gregory, LF, Wilcox, BP, Shade, B, Munster, C, Owens, MK, Veni, G. 2009 “Large-Scale Rainfall Simulation Experiments over Shallow Caves on Karst Shrublands.” *Ecohydrology*. 2(1), 72-80.

#### Conference Papers

1. Gregory, LF, Muela, S, Wagner, KL. “Application of Consistent Contact Recreation Water Quality Standards Across Hydrological Extremes: Reasonable or Ridiculous?” 16<sup>th</sup> World Water Congress, Cancun, Mexico. May 31, 2017.
2. Gregory, LF, Veni, G, Shade, BL, Wilcox, BP, Munster, CL, Owens, MK. 2005. “Quantifying recharge via fractures in an Ashe Juniper dominated karst landscape.” Proc. Sinkholes and the Engineering Environmental Impacts of Karst, B.F. Beck, ed. September 24-28, 2005, San Antonio, Texas. Geotechnical Special Publication no. 144, ASCE.
3. McKee, K, Teague, A, Riebschleagar, K, Kaur, J, Padia, R, Sullivan, B, Parker, I, Gallagher, M, Gregory, L, Dictson, N, Berg, M, Debjani, D, McFarland, M, Mukhtar, S, Srinivasan, R, Karthikeyan, R. 2010. “Developing watershed protection plans for rural watersheds:

Integrating science, policy, and stakeholders.” 21st Century Watershed Technologies Conference, ASABE, Earth University, Costa Rica.

Technical Publications:

1. Yang, L, Gregory, LF, Lundeen, E. 2024. Brushy Creek Watershed Monitoring and Historical Streamflow Estimation Final Report and Data Summary Report. Texas Water Resources Institute, Technical Report 554.
2. Gregory, LF, James, A. 2023. Continued Coordination of the Leon River Watershed Protection Plan Implementation. Texas Water Resources Institute, Technical Report 551.
3. Gregory, LF, Dictson, N. 2023. Watershed Coordinator Development Program Final Report 2023. Texas Water Resources Institute, Technical Report 548.
4. Monroe, E, Gregory, LF, McBroom, M, Poling, J, Barelas, R. 2023. La Nana Bayou Watershed Protection Plan. Texas Water Resources Institute, Technical Report 547.
5. Kikoyo, D, Jordan, T, Jain, S, Schramm, M, Gregory, LF. 2023. Technical Support Document for Five Total Maximum Daily Loads for Indicator Bacteria in the Thompsons Creek Watershed, Texas. Texas Water Resources Institute, Technical Report 545.
6. Gregory, LF, Hux, B, Gentry, TJ, Gitter, A, Monserrat, C, Casarez, E, Mena, K. 2022. Texas Bacterial Source Tracking Program (FY20-FY21). Texas Water Resources Institute, Technical Report 542.
7. Gregory, LF, Escamilla, C, Rios, E. 2022. San Fernando and Petronila Creeks Watershed Protection Plan. Texas Water Resources Institute, Technical Report 541.
8. Yang, L, Gitter, A, Jain, S, Gregory, LF. Watershed Characterization of the Angelina River above Sam Rayburn Reservoir Watershed. Texas Water Resources Institute, Technical Report 539.
9. Kikoyo, D, DeVilleneuve, S, Schramm, M, Gregory, LF. Streamflow and Water Quality Properties in the Thompsons Creek Watershed in the Vicinity of Bryan/College Station, 2020–2022. Texas Water Resources Institute, Technical Report 538.
10. Schramm, M, Gitter, A, Rambo, J, DeVilleneuve, S, Rhodes, E, Gregory, LF. 2021. Comparison of Daily Streamflow Estimation Methods in the Thompsons Creek Watershed. Texas Water Resources Institute, Technical Report 535.

11. Monroe, E, Gregory, LF, McBroom, M, Ethridge, C, Poling, J. 2021. Attoyac Bayou Watershed Protection Plan Implementation Effectiveness Monitoring and Facilitation Continuation. Texas Water Resources Institute, Technical Report 532.
12. Gitter, A, Gregory, LF, Hux, B, Boswell, J, Gentry, TJ, Monserrat, C, Casarez, E, Mena, K. 2020. Expansion and Evaluation of the Texas Bacterial Source Tracking Program (FY18-FY19). Texas Water Resources Institute, Technical Report 530.
13. Gitter, A, Nayal, M, Rambo, J, Yang, L, Gregory, LF. 2020. Watershed Characterization of the Thompsons Creek Watershed. Texas Water Resources Institute, Technical Report 526.
14. Monroe, E, Gregory, LF, Poling, J, Awtrey, K. 2020. Attoyac Bayou Watershed Protection Plan – On-site Sewage Facility Remediation. Texas Water Resources Institute, Technical Report 522.
15. Glavy, N, Gregory, LF, Escamilla, C, Garrone, I, Dictson, N. 2020. Delivery of a Watershed Coordinator Development Program Final Report 2020. Texas Water Resources Institute, Technical Report 519.
16. Gitter, A, Yang, L, Gregory, LF. 2019. Watershed Characterization of the Tributaries of the Neches River below Lake Palestine: Cedar, Hurricane, Biloxi and Jack Creeks. Texas Water Resources Institute, Technical Report 518.
17. Gutierrez, V, Gregory, LF. 2019. Addressing Agricultural NPS Pollution in the Arroyo Colorado Watershed through Continuing Education of Best Management Practices. Texas Water Resources Institute, Technical Report 517.
18. Escamilla, C, Shen, X, Schramm, M, Gregory, LF. 2019. Mid and Lower Cibolo Creek Watershed Protection Plan. Texas Water Resources Institute, Technical Report 512.
19. Gregory, LF, Gentry, TJ, Mukherjee, M, Rodriguez, R, Casarez, EA, Truesdale, JA. 2018. Texas Bacterial Source Tracking Program Application, Expansion and Marker Evaluation (FY16-17). Texas Water Resources Institute, Technical Report 508.
20. Gregory, LF, Rhodes, E, Wagner, KL, Jonescu, B, Young, K. 2017. Implementation of Intensive Water Quality Monitoring and Evaluation to Support the Lake O' the Pines National Water Quality Initiative (NWQI) – Phase I Final Report. Texas Water Resources Institute, Technical Report 505.
21. Flores, J, Wagner, KL, Gregory, LF, Benavides, JA, Cawthon, T. 2017. Update to the Arroyo Colorado Watershed Protection Plan. Texas Water Resources Institute, Technical Report 504.

22. Gregory, LF, Lazar, K, Gitter, A. 2017. Navasota River Below Lake Limestone Watershed Protection Plan. Texas Water Resources Institute, Technical Report 497.
23. Gregory, LF, Murray, J, Schultz, C. 2016. "Carters Creek Total Maximum Daily Load Implementation Project: Final Report. Texas Water Resources Institute, Technical Report 488.
24. Gregory, LF, Schultz, C. 2016. "Carters Creek Total Maximum Daily Load Implementation Project: Education and Outreach Report: Task 6. Texas Water Resources Institute, Technical Report 487.
25. Gregory, LF, Murray, J, Schultz, C. 2016. "Carters Creek Total Maximum Daily Load Implementation Project: Intensive Water Quality Monitoring Report: Task 7. Texas Water Resources Institute, Technical Report 486.
26. Jonescu, B, Gregory, LF, Gitter, A, Wagner, KL. 2016. "Carters Creek Total Maximum Daily Load Implementation Project: Routine, Reconnaissance, and Stormwater Monitoring Report: Task 4 and 5. Texas Water Resources Institute, Technical Report 485.
27. Gregory, LF, Murray, J, Schulz, C. 2016. "Carters Creek Total Maximum Daily Load Implementation Project: Watershed Source Survey and GIS Mapping: Task 3." Texas Water Resources Institute, Technical Report 484.
28. Jonescu, B, Gregory, LF, Berthold, TA, Wagner, KL. 2015. "Arenosa Creek Surface Water Quality Monitoring Report." Texas Water Resources Institute, Technical Report 482.
29. Gregory, LF, Gitter, A, Lazar, K. 2015. "Basin Approach to Address Bacterial Impairments in the Navasota River Watershed." Texas Water Resources Institute, Technical Report 476.
30. Gregory, LF, Sheng, Z, El Hassan, A, McDonald, A, Porter, A. 2014. "Implementing the Pecos River WPP through a Heliborne Electromagnetic (EM) Survey." Texas Water Resources Institute, Technical Report 470.
31. Gregory, LF., Knutson, A, Edgerton, E, Mukherjee, A, Baumann, P, Masser, M, Wagner, KL. 2014. "Water Quality at Caddo Lake, Center for Invasive Species Eradication: Final Report." Texas Water Resources Institute, Technical Report 468.
32. Gregory, LF, Brown, M, Hein, K, Skow, K., Engling, A, Wagner, KL, Berthold, TA. 2014. Basin Approach to Address Bacterial Impairments in Basins 15, 16, and 17. Texas Water Resources Institute, Technical Report 462.



33. Gregory, LF, Brown, M., Skow, K., Engling, A., Wagner, K., Berthold, A. 2014. Application of the Recovery Potential Screening Tool in the Matagorda Bay Watershed. Texas Water Resources Institute, Technical Report 460.
34. Gregory, LF, Boitnott, N., Castilaw, A., Borel, K., Fuller, S., Govil, K., Hein, K., Gentry, T., Karthikeyan, R., Martin, E., McBroom, M., Rowley, T., Schwab, S., Sims, B. 2014. "Attoyac Bayou Watershed Protection Plan." Texas Water Resources Institute, Technical Report 458.
35. Boitnott, N., Castilaw, A., Gregory, LF, Wagner, K. 2014. Attoyac Bayou GIS Inventory, Source Survey, and Land Use Land Cover Report. 2014. Texas Water Resources Institute, Technical Report 455.
36. Wagner, K., Brown, M., Gregory, LF, Harmel, D., Coufal, C., Gentry, T. 2013. Environmental Effects of In-House Windrow Composting of Poultry Litter. Texas Water Resources Institute, Technical Report 459.
37. DeLaune, P., Scanlon, B., Reedy, R., Schwartz, R., Baumhardt, L., Gregory, LF 2013. "Groundwater Nitrogen Source Identification and Remediation in the Texas High Plains and Rolling Plains Regions." Texas Water Resources Institute, Technical Report 451.
38. Gregory, LF, Porter, A., Knutson, A., Muegge, M. 2013. "Implementing the Pecos River WPP through Invasive Species Control and by Providing Technical and Financial Assistance to Reduce Agricultural Nonpoint Source Pollution." Texas Water Resources Institute, Technical Report 449.
39. Di Giovanni, G., Casarez, E., Gentry, T., Martin, E., Gregory, LF, Wagner, K. 2013. "Support Analytical Infrastructure and Further Development of a Statewide Bacterial Source Tracking Library." Texas Water Resources Institute, Technical Report 448.
40. Gregory, LF, Hauck, L., Blumenthal, B., Brown, M., Porter, A. 2013. "Pecos River Watershed Protection Plan Update." Texas Water Resources Institute, Technical Report 447.
41. Gregory, LF, Dyer, P., Wagner, K., DeLaune, P. 2013. "Water Quality Monitoring in the Buck Creek Watershed and Facilitation of Buck Creek Watershed Partnership: Final Report." Texas Water Resources Institute, Technical Report 444.
42. Gregory, LF, Casarez, E., Truesdale, J., Di Giovanni, G., Owen, R., Wolfe, J. 2013. "Bacterial Source Tracking to Support the Development and Implementation of Watershed Protection Plans for the Lampasas and Leon Rivers: Leon River Watershed Final Report." Texas Water Resources Institute, Technical Report 442.

43. Gregory, LF, Casarez, E., Truesdale, J., Di Giovanni, G., Owen, R., Wolfe, J. 2013. "Bacterial Source Tracking to Support the Development and Implementation of Watershed Protection Plans for the Lampasas and Leon Rivers: Lampasas River Watershed Final Report." Texas Water Resources Institute, Technical Report 441.
44. Schwab, S., McBroom, M., Gregory, LF, Blumenthal, B., Hein, K., Wagner, K., Sims, B. 2012. Attoyac Bayou Surface Water Quality Monitoring Report. Texas Water Resources Institute, Technical Report, Technical Report 457.
45. Borel, K., Gregory, LF, Karthikeyan, R. 2012. "Modeling Support for the Attoyac Bayou Assessment Using SELECT." Texas Water Resources Institute, Technical Report, Technical Report 454.
46. Borel, K., Gregory, LF, Karthikeyan, R. 2012. "Modeling Support for the Attoyac Bayou Assessment Using Load Duration Curves." Texas Water Resources Institute, Technical Report, Technical Report 453.
47. Fuller, S., Schwab, S., Castilaw, A., Gregory, LF 2012. "Attoyac Bayou Recreational Use Attainability Analysis." Texas Water Resources Institute, Technical Report, Technical Report 445.
48. Karthikeyan, R, Mukhtar, S, Lopez, R, Parker, I, Gregory, L, Harmel, D, Padia, R, Gallagher, M, Borel, K. 2012. "Fate and Transport of *E. coli* in Rural Texas Landscapes and Streams." Texas Water Resources Institute, Technical Report 434.
49. Gregory, LF, Smith, C., Warrick, L. 2012. "Conference Proceedings for the 2012 Bacterial Source Tracking – State of the Science Conference." Texas Water Resources Institute, Technical Report 427.
50. Gregory, LF, Barella, K., Berthold, T., Borel, K., Casarez, E., DeLaune, P., DiGiovanni, G., Dyer, P., Govil, K., Hoff, A., Karthikeyan, R., Sij, J., Truesdale, J., VanDelist, B., Wagner, K. 2012. Buck Creek Watershed Protection Plan. Texas Water Resources Institute, Technical Report 420.
51. Mukhtar, S, Wagner, K, Gregory, LF 2009. "Field Demonstration of an Electrocoagulation System to Reduce Phosphorus and Other Substances from Dairy Lagoon Effluent." Texas Water Resources Institute, Technical Report 346.
52. Mukhtar, S, Wagner, K, Gregory, LF 2009. "Field Demonstration of the Performance of a Geotube® Dewatering System to Reduce Phosphorus and Other Substances from Dairy Lagoon Effluent." Texas Water Resources Institute, Technical Report. 345.

53. Mukhtar, S, Rahman, S, Gregory, LF 2009. "Field Demonstration of the Performance of the L4DB<sup>®</sup> Microbial Treatment System to Reduce Phosphorus and Other Substances from Dairy Lagoon Effluent." Texas Water Resources Institute, Technical Report. 344.
54. Mukhtar, S, Rahman, S, Gregory, LF 2009. "Field Demonstration of the Performance of Wastewater Treatment Solution (WTS<sup>®</sup>) to Reduce Phosphorus and Other Substances from Dairy Lagoon Effluent." Texas Water Resources Institute, Technical Report. 342.
55. Jones, CA and Gregory LF. 2008. "Effects of Brush Management on Water Resources." Texas Water Resources Institute, Technical Report 338.
56. Gregory, LF and Dyer, PM. 2008. "Bacterial Monitoring for the Buck Creek Watershed." Texas Water Resources Institute, Technical Report 318.
57. Gregory, LF and Hatler, W. 2008. "A Watershed Protection Plan for the Pecos River in Texas." Texas Water Resources Institute. Available online at: <http://pecosbasin.tamu.edu/media/5734/pecosriverwpp.pdf>
58. Gregory, LF and Meier, M. 2008. "Descriptions and Expectations of Recommended BMPs for Improving the Bosque River Watershed." Texas Water Resources Institute, Technical Report 309.
59. Mukhtar, S, Wagner, KL, Gregory, LF. 2007. "Technologies for reducing nutrients in dairy effluent." Texas Cooperative Extension Publication B-6196.

### **Conference Presentations**

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#### Oral:

1. Gitter, A, Powers, N, Gregory, LF, Postma, S. 2024. "There's What in the Water? Why bacterial source tracking and risk assessment can improve recreational water quality." Universities Council on Water Resources annual conference. St. Louis, MO. October 2, 2024.
2. Gregory, LF, Rhodes, E, Wagner, KL, Gerlich, J. 2023. "Edge of Field Runoff Analysis following Grazing and Silvicultural BMP Implementation in Northeast Texas." Universities Council on Water Resources annual conference. Fort Collins, CO. June 11, 2023.
3. Gregory, LF, et al. 2019. "SmartPath: A Grower Directed Toolbox to Protect Human Health Through Advanced Irrigation Water Quality Management." Universities Council on Water Resources annual conference. Greenville, SC. June 14, 2022.

4. Gregory, LF, et al. 2019. "SmartPath: A Grower Directed Toolbox to Protect Human Health Through Advanced Irrigation Water Quality Management." Southern Region Water Conference. July 24, 2019.
5. Gregory, LF, Gentry, TJ, Harmel, RD, Wagner, KL. 2019. "Evaluating Sources and Quantifying Differences in Soil *E. coli* Occurrence in Minimally Impacted Catchments." Universities Council on Water Resources annual conference. Snowbird, UT. June 11, 2019.
6. Gregory, LF, Muela, S, Wagner, KL. 2018. "Application of Consistent Contact Recreation Water Quality Standards Across Hydrological Extremes: Reasonable or Ridiculous?" Universities Council on Water Resources annual conference. Pittsburg, PA. June 27, 2018.
7. Gregory, LF, Muela, S, Wagner, K. 2017. "Application of Consistent Contact Recreation Water Quality Standards Across Hydrological Extremes: Reasonable or Ridiculous?" 16<sup>th</sup> World Water Congress, Cancun, Mexico. May 31, 2017.
8. Gregory, LF, Karthikeyan, R, Aitkenhead-Peterson, J, Gentry, T, Harmel, RD. 2016. "Influences of External Factors on *Escherichia coli* Distribution, Concentration, Sources, and Fate in Secondary Environments. Ph.D. defense, Texas A&M University, College Station, TX. March 1, 2016.
9. Gregory, LF, Gentry, TJ, Harmel, RD, Wagner, KL, Karthikeyan, R, Lopez, R, Mukhtar, S, Aitkenhead-Peterson, JA. 2016. "Bacteria Fate, Transport, Growth & Persistence Study Results." Texas Watershed Coordinator Roundtable. College Station, TX. January 11, 2016.
10. Gregory, LF, Karthikeyan, R, Aitkenhead-Peterson, J, Wagner, KL, Gentry, T. 2015. "Assessing Impacts of Nutrient Loading on Culturable *E. coli* in a Re-created Natural Stream Mesocosm." University Council on Water Resources Conference. Henderson, NV. June 16-18, 2015.
11. Gregory, LF, Karthikeyan, R, Aitkenhead-Peterson, J, Wagner, KL, Gentry, T. 2014. "Assessing Impacts of Nutrient Loading on Culturable *E. coli* in Re-created Natural Stream Mesocosms." Water Microbiology Conference. Chappel Hill, NC. May 5-7, 2014.
12. Gregory, LF, Gentry, T, Martin, E, Harmel, RD, Wagner, KL. 2014. "Identifying Sources and Quantifying Differences in *E. coli* Occurrence in Soils from Unimpacted Catchments with Varying Landuse." Water Microbiology Conference. Chappel Hill, NC. May 5-7, 2014.
13. Gregory, LF. 2013. "Water Issues in Texas." Texas Coastal Bend Texas County Commissioners and Judges Conference. Victoria, TX. December 19, 2013.
14. Gregory, LF. 2013. "Invasive Species Management in Texas: Lessons Learned in the Fight Against Giant Salvinia and Saltcedar." Universities Council on Water Resources, National

Institutes for Water Resources Annual Conference. South Lake Tahoe, CA. June 11 – 13, 2013.

15. Gregory, LF, Blumenthal, B, Borel, K, Karthikeyan, R, Wagner, K. 2012. "Estimating On-Site Sewage Facility Density in Rural Watersheds using GIS." 2012 Land Grant and Sea Grant National Water Conference. Portland OR. May 20-24, 2012.
16. Gregory, LF. 2011. "Water Issues in Texas." East Texas County Commissioners and Judges Conference. Nacogdoches, TX. November 30, 2011.
17. Gregory, LF. 2007. "Pecos Basin Assessment and Watershed Protection Planning." 15<sup>th</sup> Annual Nonpoint Source Monitoring Workshop: Monitoring for Decision Making. Austin, TX. August 26-30, 2007.

Posters:

1. Gregory, LF, Veni, G, Shade, BL, Wilcox, BP, Munster, CL, Owens, MK. 2005. "Monitoring cave recharge in the Edwards Aquifer Recharge zone for natural and simulated rainfall events." American Geophysical Union Fall Meeting. San Francisco, CA. December 5-9, 2005.
2. Gregory, LF, Veni, G, Shade, BL, Wilcox, BP, Munster, CL, Owens, MK. 2006. "Evaluating the influence surface vegetation on cave recharge." Charting the Course Conference. Austin, TX. November 15-17, 2005.
3. Gregory, LF, Veni, G, Shade, BL, Wilcox, BP, Munster, CL, Owens, MK. 2005. "Quantifying the water budget in a juniper dominated karst landscape." American Geophysical Union Joint Assembly. New Orleans, LA. May 23-27, 2005.

**Current Funding**

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PI on 28 active projects (3/8/2024); Current funding to support projects - \$6,938,144

**Teaching**

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| PSS 6001 | Texas Tech University, Fall 2024. Regenerative Ag in Semi-arid Ecosystems – Water Quality Impacts of Regenerative Cotton Cropping Systems. Guest lecture. |
| CVEN 681 | Texas A&M University, Fall 2024. Water Resources Seminar. Guest lecture.  |
| WMHS 685 | Texas A&M University, Fall 2013. Developing and Implementing Watershed Plans. Team taught with Dr. Kevin Wagner   |

SCSC 658 Texas A&M University, Spring 2013 - 2022. Managing Water Quality in Texas. Guest lecture in Dr. Jacqueline Aitkenhead-Peterson's class

Texas Watershed Planning Short Course. 2015, 2017, 2019, 2021, 2022, 2023. Topics include stakeholder facilitation, pollutant loading source estimation, load duration curve development, water quality monitoring, loading estimation calculations, and funding mechanisms

Texas Stream Team Core Monitoring Training. 2012 – 2020. Presented training materials and taught monitoring techniques and data assessment to 118 college students, professionals, and retirees.

### **Advising**

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2024 – 2027: Arifa Sultana, Ph.D. – Texas A&M University – Committee Member  
2024 – 2026: Lindsey Berube, M.S. – Oklahoma State University – Committee Member  
2024 – 2025: Luna Yang, Ph.D. – Texas A&M University – Committee Member  
2023 – 2024: Norberto Barragan, M.WM. – Texas A&M University – Committee Member  
2022 – 2024: Jack Edwards, M.S. – Oklahoma State University – Committee Member  
2019 – 2021: Anna Gitter, Ph.D. – Texas A&M University – Special Appointee  
2018 – 2019: Uvashree Mohandass, M.S. – Texas A&M University – Special Appointee

### **Service**

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2002 – 2003: Vice President: Texas A&M Student Chapter of American Water Resource Association  
2006 – present: Grant application review for USGS Student Water Research Grants and Mills Scholarships awarded by the Texas Water Resources Institute  
2011 – present: Technical reviewer for the Texas Water Journal  
2013 – present: Technical reviewer for the American Society of Agricultural and Biological Engineers  
2017 – USDA NIFA Exploratory Research Proposal Reviewer  
2018 – present: Technical reviewer for Agrosystems, Geosciences and Environment  
2018 – present: Technical reviewer for Journal of Contemporary Water Research and Education  
2018 – present: Texas State Soil and Water Conservation Board Conservation Awards Program Review Committee Member  
2018 – present: Christ Church Men's Ministry Leadership Team  
- Past President: 2019 – 2021  
2019 – present: Universities Council on Water Resources Technical Program Subcommittee Member; Awards Committee Member/Chairperson  
2019 – present: Texas A&M Creation and Deployment of Water-Use Efficient Technology Platforms Grant Reviewer  
2020 – US EPA STAR Harmful Algal Bloom Review Panel Member  
2021 – present: Universities Council on Water Resources Board Member

- President Elect: 2024 – 2025
- Texas A&M University's Lead Delegate (2021 – Present)

2021 – 2024: Universities Council on Water Resources Technical Program Chair for Greenville, SC, Fort Collins, CO, and St. Louis, MO annual conferences

2024 – present: Technical reviewer for Journal of Environmental Science and Health

2024 – present: Technical reviewer for Journal of Environmental Studies and Sciences

2024 – USGS WRRR 104G PFAS Studies Panel Reviewer

2024 – 2027 USDA NextGen NRCS Pros Program Advisory Board Member

## Awards

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2023 – UCOWR *Journal of Contemporary Water Research & Education* Paper of the Year Award: Schramm, M; Gitter, A; Gregory, LF. 2022. Total Maximum Daily Loads and *Escherichia coli* Trends in Texas Freshwater Streams. *Journal of Contemporary Water Research & Education* 176: 36-49.

2024 – UCOWR Education and Public Service Award: The Texas Watershed Planning Program. Co-awarded to Kevin Wagner and Lucas Gregory for 15 years of developing and delivering the Texas Watershed Planning Program through over 90 events to more than 3,500 practitioners.

## References

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