

D. Alex Beebe

Department of Earth Sciences, University of South Alabama

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EDUCATION

Clemson University Clemson, SC
Ph.D., Environmental Engineering and Science, Clemson University, 2013.
Dissertation: *Renovation of Ammonia Contaminated Produced Water Using Constructed Wetlands*. Advisor: J.W. Castle

University of South Alabama Mobile, AL
Bachelor of Science, Geology and Biology, Cum Laude, 2007.
Additional marine biology and geology coursework completed through the Dauphin Island Sea Lab.

ACADEMIC AND PROFESSIONAL EXPERIENCE

August 2013 – Present Assistant Professor of Geology, Department of Earth Sciences, University of South Alabama, Mobile, AL.

August 2012 – August 2013 Graduate Teaching Assistant, Department of Environmental Engineering and Earth Science, Clemson University.

August 2008 – August 2012 Graduate Research Assistant, Department of Environmental Engineering and Earth Science, Clemson University.

January 2008 – August 2008 Environmental Geologist, Environmental Consulting Department, Southern Earth Sciences, Inc., Mobile, AL.

September 2006 – December 2008 Environmental Geology Intern, Environmental Consulting Department, Southern Earth Sciences, Inc., Mobile, AL.

TEACHING EXPERIENCE

Courses Prepared and Taught (University of South Alabama)
Environmental Toxicology Graduate Research (EXT599)
Environmental Toxicology Directed Studies (EXT594)
Graduate Level Hydrology (GY575)
Geology Directed Studies (GY494)
Field Geology (GY480)
Senior Research Thesis: Capstone II (Advisor, AIS430)
Hydrology (GY425)
Geophysics (GY305)
Earth History (GY112)
Physical Geology (GY111)
Physical Geology Laboratory (GY111L)

Courses Prepared and Taught (Clemson University)
Surficial Geology Laboratory (Assistant, GEOL4050)
Physical Geology Laboratory (GEOL1030)

Directed Studies Undergraduate Students

Samuel Barber, 2017-2018	Beverly Lowery, 2014-2015
Sheena Parker, 2017-2018	Jennifer Jackson, 2014-2015
Thomas Casteel, 2017	Dane Leach, 2014-2015
Jacqueline Pledger, 2017	Daniel Little, 2015
Rebecca McClaurine, 2016	Chen Yu Chuan Gu, 2015
Michelle Labelle, 2016	David Morrison, 2015
Rian Engle, 2016	Emil Johnson, 2014
Kaylyn Bellais, 2016	Tyler Hayaski, 2014
Joseph Patterson, 2015	Joe Connors, 2014
Jordan Hollinghead, 2015	Levi Brown, 2014

Graduate Committees

Dane Leach, 2018, M.S. Environmental Sciences, University of West Florida
Nickolas Moreno, 2018, M.S. Biology, University of South Alabama
Patrick Hautau, 2018, M.S. Civil Engineering, University of South Alabama
Beverly Lowery, 2018, M.S. Environmental Sciences, University of West Florida
Laura Lovett, 2018, M.S. Environmental Toxicology, University of South Alabama
Ross Colburn, 2018, M.S. Environmental Toxicology, University of South Alabama
(Chair)
Amy Schwarber, 2018, M.S. Environmental Toxicology, University of South Alabama
Darius Hixon, 2016, M.S. Environmental Toxicology, University of South Alabama
Steven Stokes, 2016, M.S. Marine Sciences, University of South Alabama
Bryan Gorza, 2016, M.S. Civil Engineering, University of South Alabama
Caroline Novy, 2015, M.S. Environmental Toxicology, University of South Alabama
(Chair)
Kari Servold, 2015, M.S. Civil Engineering, University of South Alabama
Frankie White, 2015, M.S. Environmental Toxicology, University of South Alabama

SCHOLARLY ACTIVITIES

Peer Reviewed Publications (Student authors underlined for clarity)

Beebe, D.A. and B.A. Lowery, 2018. Seawater Recirculation Drives Groundwater Nutrient Loading from a Developed Estuary Shoreline with On-site Wastewater Treatment Systems: Mobile Bay, USA. *Environmental Earth Science*, 77(10): 372.

Beebe, D.A., J.W. Castle, and J.H. Rodgers, 2015. Biogeochemical Process-Based Design for Treating Ammonia Using Constructed Wetland Systems. *Environmental Engineering Science*, 32(5): 394-406.

Beebe, D.A., J.W. Castle, F.J. Molz, and J.H. Rodgers, 2014. Effects of Evapotranspiration on Treatment Performance in Constructed Wetlands: Experimental Studies and Modeling, *Ecological Engineering*, 71: 394-400.

Beebe, D.A., J.W. Castle, and J.H. Rodgers, 2013. Treatment of Ammonia in Pilot-scale Constructed Wetland Systems with Clinoptilolite. *Journal of Environmental Chemical Engineering*, 1: 1159-1165

Alley, B., **D.A. Beebe**, J.H. Rodgers Jr., and J.W. Castle, 2011. Chemical and Physical Characterization of Produced Waters from Conventional and Unconventional Fossil Fuel Resources. *Chemosphere*, 85(1): 74-82

Non-peer Reviewed Publications

Castle, J.W., J.H. Rodgers, B. Alley, **A. Beebe**, R. Coffey, K. Jurinko, M. Pardue, T. Ritter, and M.M. Spacil, 2013. *Innovative Water Management Technology to Reduce Environmental Impacts of Produced Water*. Technical Report prepared for the U.S. Department of Energy, August.

Published Abstracts (Students underlined for clarity)

Beebe, A., R.C. Carmichael, J. Cebrian, M. Cook, B. Dzwonkowski, J. Kudulis, J. Lehrter, S. Smallegan, T. Thibaut, B. Vittor and B. Webb, 2018. Fowl River Marsh Study: If You Try Sometimes You Just Might Find You Get What You Need, 32nd Annual Alabama Water Resources Conference (In Press), September 6th, Orange Beach, AL.

Parker, S.M., R.E. Colburn, and **D.A. Beebe**, 2018. Investigating Submarine Groundwater Discharge and Subterranean Flow Paths in a Coastal Lagoon Using Field Permeameter and Light-Oil Piezomanometer Observations, *Geological Society of America Abstracts with Programs*: (In Press), Annual Southeast Regional Meeting, April 12th, Knoxville, TN.

Pledger, J.R., T.J. Casteel, and **D.A. Beebe**, 2018. Evaluating the TC1 "Slinky" Seismometer as an Accessible Educational and Research Resource at an Undergraduate Geology Program, *Geological Society of America Abstracts with Programs*: (In Press), Annual Southeast Regional Meeting, April 12th, Knoxville, TN.

Barber, S.T., K.C. Bellais, **D.A. Beebe**, and M.W. Clark, 2017. Modern Geologic Characterization of a Gulf of Mexico Coastal Dune Lake, *Geological Society of America Abstracts with Programs*: 49(6), Annual National Meeting, October 24th, Seattle, WA.

Barber, S.T. and **D.A. Beebe**, 2017. Zonation of Eastern Lake, Walton County, Florida. 19th Annual Undergraduate Research Symposium, October 20th, Mobile, AL.

Labelle, M.M., K.C. Bellais, **D.A. Beebe**, and M.W. Clark, 2016. Benthic Foraminifera as Possible Bio-indicators of Environmental Conditions in Mobile Bay, Bays and Bayous Symposium, November 30th, Biloxi, MS.

Beebe, D.A., D.T. Allison, B.A. Lowery, and M.M. Labelle, 2016. Investigating the Effects of Coastal Residential Development on Nutrient Flux via Submarine

Groundwater Discharge in Mobile Bay, Bays and Bayous Symposium, November 30th, Biloxi, MS.

Beebe, D.A., D.T. Allison, B.A. Lowery, and M.M. Labelle, 2016. Investigating Nutrient Release via Submarine Groundwater Discharge Along a Developed Estuary Shoreline, *Geological Society of America Abstracts with Programs*: 48(7), Annual National Meeting, September 27th, Denver, CO.

Beebe, D.A., 2016. Submarine Groundwater Discharge: An Important and Elusive Source of Water and Nutrients to Mobile Bay, USA ORED Research and Scholarly Activities Forum, May 12th, Mobile, AL.

Allison, D.T., **D.A. Beebe**, S.T. Barber, P.B. Bordelon, H.W. Brown, and A.B. Goodwin, 2016. Using Polaris and other Celestial Objects to Establish Precise Geographic North Azimuth with the Total Station, *Geological Society of America Abstracts with Programs*: 48(3), Annual Southeast Regional Meeting, March 31st, Columbia, S.C.

Hollinghead, J.C., C.E. Borgini, J.P. Patrick, and **D.A. Beebe**, 2016. Seasonal Comparison of Submarine Groundwater Discharge to a Northern Gulf of Mexico Estuary, *Geological Society of America Abstracts with Programs*: 48(3), Annual Southeast Regional Meeting, March 31st, Columbia, S.C.

Leach, D.J., **D.A. Beebe**, and D.T. Allison, 2016. Nutrient Input to a Developed Coastal Estuary via Submarine Groundwater Discharge, *Geological Society of America Abstracts with Programs*: 48(3), Annual Southeast Regional Meeting, March 31st, Columbia, S.C.

Hollinghead, J.C., C.E. Borgini, J.P. Patrick, and **D.A. Beebe**, 2016. Seasonal Response of Submarine Groundwater Discharge in Mobile Bay, Southeastern Coastal & Atmospheric Processes Symposium (SECAPS), March 5th, Mobile, AL.

Beebe, D.A., D.J. Leach, and D.T. Allison, 2015. Submarine Groundwater Discharge and Nutrient Dynamics in the Vicinity of Coastal Residences with Onsite Wastewater Treatment, *Geological Society of America Abstracts with Programs*; 47(7), Annual National Meeting, November 4th, Baltimore, MD.

Leach, D. and **A. Beebe**, 2015. Characterizing Submarine Groundwater Discharge in Mobile Bay, AL, 17th Annual UCUR Undergraduate Symposium, October 15th, Mobile, AL.

Lowery, B. and **A. Beebe**, 2015. Application and Effectiveness of Biochar as a Fertilizer and as a Substrate for Removing Harmful Nitrates from the Environment, 17th Annual UCUR Undergraduate Symposium, October 15th, Mobile, AL.

Clark, A., S. Kimball, C. Shafer, W. Terwey, and **A. Beebe**, 2015. Association of Gulf Coast Watershed Historic Discharge Events to Precipitation Rate and Accumulation, 17th Annual UCUR Undergraduate Symposium, October 15th, Mobile, AL.

Clark, A., **A. Beebe**, K. Blackwell, S. Kimball, C. Shafer, and W. Terwey, 2015. Association of High Watershed Discharge Events with Meteorological Environments

Favorable for Flash Flooding Along the Gulf Coast. 50th Annual National Collegiate Honors Council.

- Novy, C., A. Beebe, and A. Whelton, 2015. Environmental Concentrations and Aquatic Toxicity of a Chemical Mixture Spilled into a Drinking Water Supply in Charleston, WV., Fostering Advances in Water Resource Protection and Crisis Communication, Lessons Learned from Recent Dissasters (NSF Sponsored Workshop), May 29th, Shepherdstown, WV.
- Novy, C., A. Beebe, and A. Whelton, 2015. Environmental Fate and Aquatic Toxicology Lessons of the Freedom Industries Chemical Spill in Charleston, WV. Alabama's Water Environment Association 38th Annual Conference, April 17th, Orange Beach, AL.
- Novy, C., A. Beebe, and A. Whelton, 2015. Environmental Contamination and *Daphnia Magna* Toxicity Caused by the Freedom Industries Elk River Chemical Spill, West Virginia. University of South Alabama 22nd Annual Graduate Research Forum, March 18th, Mobile, AL.
- Leach, D.J., B.A. Lowery, J.L. Jackson, and **D.A. Beebe**, 2015. Removing Nutrient Pollutants from Urban Stormwater Run-off Using Adsorptive Substrates. *Geological Society of America Abstracts with Programs*: 47(2): 95, Southeast Regional Meeting, March 20th, Chattanooga, TN.
- Johnson, E.D., D.A. Beebe, and D.T. Allison, 2015. A Gravimetric Investigation of The Subsurface Structural Geology of Northern Mobile Bay, *Geological Society of America Abstracts with Programs*: 47(2): 77, Southeast Regional Meeting, March 20th, Chattanooga, TN.
- Clark, A., A. Beebe, K. Blackwell, S. Kimball, C. Shafer, and W. Terwey, 2015. Association of Gulf Coast Watershed Historic Discharge Events to Precipitation Rate and Accumulation, Southeastern Coastal & Atmospheric Processes Symposium (SeCAPS), February 21st, 2015, Mobile, AL.
- Beebe, A.**, K. Blackwell, W. Terwey, C. Shafer, and S. Kimball, 2014. Analysis of Historic Rainfall and Flooding Events in the North-Central Gulf Coast, Bays and Bayous Symposium, December 2nd, Mobile, AL.
- Beebe, D.A.** and T.A. Hayaski, 2014. Enhanced Adsorption and Removal of Nutrient Pollutants in Urban Stormwater Run-off with Novel Substrates, 28th Annual Alabama Water Resources Conference, September 4th, Orange Beach, AL.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2013. Effects of Evapotranspiration on Water Treatment Performance in Constructed Wetlands, Clemson Hydrogeology Symposium, April 4, Clemson, SC.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2012. Evapotranspiration Studies in Small Stand Wetlands. *Geological Society of America Abstracts with Programs*: 44(7): 581, Annual National Meeting, November 7, Charlotte, NC.

- Beebe, D.A.**, B. Alley, J.W. Castle, and J.H. Rodgers, Jr., 2012. Evaluation of Coal-Bed Methane Produced Water in Western Alabama for Use as a Water Resource during Drought, Clemson Hydrogeology Symposium, April 5, Clemson, SC.
- Beebe, D.A.**, B. Alley, J.W. Castle, and J.H. Rodgers, Jr., 2012. Potential for Beneficial Use of Coal-Bed Methane Produced Water in Western Alabama to Augment Water Supplies during Intense Drought. *Geological Society of America Abstracts with Programs*: 44(4): 66, Southeast Regional Meeting, April 2, Asheville, NC.
- Beebe, D.A.**, Y. Song, J.W. Castle, and J.H. Rodgers Jr., 2011. Designing Constructed Wetland Treatment Systems for Ammonia in Produced Water. *Society of Environmental Toxicologists and Chemists, North American 32nd Annual Meeting Abstracts*: p. 377, Annual National Meeting, November, 17, Boston, MA.
- Beebe, D.A.**, Y. Song, J.W. Castle, and J.H. Rodgers Jr., 2011. Pilot Study of Constructed Wetland Treatment Systems Designed for Removal of Ammonia in Oilfield Produced Water. *Geological Society of America Abstracts with Programs*: 43(5): 580, Annual National Meeting, October 12, Minneapolis, MN.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2011. Clinoptilolite as a Dual Purpose Sorbent and Microbial Carrier in Constructed Wetland Treatment Systems Designed to remove Ammonia, Clemson Hydrogeology Symposium, April 7, Clemson, SC.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2011. Evaluation of Clinoptilolite for Use as a Sorptive Microbial Carrier in Constructed Wetland Treatment Systems Designed to Remove Ammonia. *Geological Society of America Abstracts with Programs*: 43(3): 39, South Central Regional Meeting, March 29, New Orleans, LA.
- Alley, B., **D.A. Beebe**, J.H. Rodgers Jr., and J.W. Castle, 2010. A Comparative Characterization of Produced Water from Conventional and Unconventional Fossil Fuel Resources. *American Association of Petroleum Geologists Search and Discovery Article*: #90104, Annual National Meeting, April 14, New Orleans, LA.
- Castle, J.W., J.H. Rodgers, Jr., B. Alley, M. Spacil, **A. Beebe**, M. Pardue, and Y. Song, 2010. Biogeochemical Processes for Treating Oil and Gas Produced Waters Using Hybrid Constructed Wetland Treatment Systems. *American Association of Petroleum Geologists Search and Discovery Article*: #90104, Annual National Meeting, April 14, New Orleans, LA.

Selected Presentations

- Beebe, D.A.**, 2018. Water: A precious but overlooked natural resource. University of South Alabama Odyssey Program, June 27th, Mobile, AL.
- Beebe, D.A.**, 2017. (Invited Presentation) Submarine Groundwater Discharge, an Elusive Source of Water to Mobile Bay, Mobile Gem and Rock Society Monthly Meeting, August 8th, Mobile, AL.

- Beebe, D.A.**, 2017. Earthquakes as Probes of Earth's Interior. University of South Alabama Odyssey Program, April 14th, Mobile, AL.
- Beebe, D.A.**, D.T. Allison, B.A. Lowery, and M.M. Labelle, 2016. Investigating the Effects of Coastal Residential Development on Nutrient Flux via Submarine Groundwater Discharge in Mobile Bay, Bays and Bayous Symposium, November 30th, Biloxi, MS.
- Beebe, D.A.**, D.T. Allison, B.A. Lowery, and M.M. Labelle, 2016. Investigating Nutrient Release via Submarine Groundwater Discharge along a Developed Estuary Shoreline, *Geological Society of America Abstracts with Programs*: 48(7), Annual National Meeting, September 27th, Denver, CO.
- Beebe, D.A.**, 2016. (Invited Presentation) Submarine Groundwater Discharge: An Important and Elusive Source of Water and Nutrients to Mobile Bay, USA ORED Research and Scholarly Activities Forum, May 12th, Mobile, AL.
- Beebe, D.J.** Leach, and D.T. Allison, 2015. Submarine Groundwater Discharge and Nutrient Dynamics in the Vicinity of Coastal Residences with Onsite Wastewater Treatment, *Geological Society of America Abstracts with Programs*; (In press), Annual National Meeting, November 4th, Baltimore, MD.
- Beebe, A.**, K. Blackwell, W. Terwey, C. Shafer, and S. Kimball, 2014. Analysis of Historic Rainfall and Flooding Events in the North-Central Gulf Coast, Bays and Bayous Symposium, December 2nd, Mobile, AL.
- Beebe, D.A.** and T.A. Hayaski, 2014. Enhanced Adsorption and Removal of Nutrient Pollutants in Urban Stormwater Run-off with Novel Substrates, 28th Annual Alabama Water Resources Conference, September 4th, Orange Beach, AL.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2013. Effects of Evapotranspiration on Water Treatment Performance in Constructed Wetlands, Clemson Hydrogeology Symposium, April 4, Clemson, SC.
- Beebe, D.A.**, J.W. Castle, and J.H. Rodgers Jr., 2012. Evapotranspiration Studies in Small Stand Wetlands. *Geological Society of America Abstracts with Programs*: 44(7): 581, Annual National Meeting, November 7, Charlotte, NC.
- Beebe, D.A.**, B. Alley, J.W. Castle, and J.H. Rodgers, Jr., 2012. Evaluation of Coal-Bed Methane Produced Water in Western Alabama for Use as a Water Resource during Drought, Clemson Hydrogeology Symposium, April 5, Clemson, SC.
- Beebe, D.A.**, B. Alley, J.W. Castle, and J.H. Rodgers, Jr., 2012. Potential for Beneficial Use of Coal-Bed Methane Produced Water in Western Alabama to Augment Water Supplies during Intense Drought. *Geological Society of America Abstracts with Programs*: 44(4): 66, Southeast Regional Meeting, April 2, Asheville, NC.
- Beebe, D.A.**, Y. Song, J.W. Castle, and J.H. Rodgers Jr., 2011. Designing Constructed Wetland Treatment Systems for Ammonia in Produced Water. *Society of Environmental Toxicologists and Chemists, North American 32nd Annual Meeting Abstracts*: p. 377, Annual National Meeting, November, 17, Boston, MA.

Beebe, D.A., Y. Song, J.W. Castle, and J.H. Rodgers Jr., 2011. Pilot Study of Constructed Wetland Treatment Systems Designed for Removal of Ammonia in Oilfield Produced Water. *Geological Society of America Abstracts with Programs*: 43(5): 580, Annual National Meeting, October 12, Minneapolis, MN.

Beebe, D.A., J.W. Castle, and J.H. Rodgers Jr., 2011. Clinoptilolite as a Dual Purpose Sorbent and Microbial Carrier in Constructed Wetland Treatment Systems Designed to Remove Ammonia, Clemson Hydrogeology Symposium, April 7, Clemson, SC.

Beebe, D.A., J.W. Castle, and J.H. Rodgers Jr., 2011. Evaluation of Clinoptilolite for Use as a Sorptive Microbial Carrier in Constructed Wetland Treatment Systems Designed to Remove Ammonia. *Geological Society of America Abstracts with Programs*: 43(3): 39, South Central Regional Meeting, March 29, New Orleans, LA.

GRANTS

Center for Environmental Resiliency (CER), 2018. Assessing Benthic Foraminifera as Sentinel Biological Indicators for Environmental Resiliency in Coastal Dune Lakes (\$20,000) co-PI with Murlene Clark (PI) and David Allison (co-PI), Submitted March 15th. Result: Under Review.

University of South Alabama Research and Scholarly Development Grant (RSDG), 2018. Constraining Trace Metal Fluxes into Mobile Bay through Submarine Groundwater Discharge (\$24,926) co-PI with Xiangli Wang (PI), Submitted March 1st. Result: Not Funded.

Mobile Bay National Estuary Program, 2018. Fowl River Marsh Health Investigation Subcontract (\$84,934), PI with Brian Dzwonkowski (co-PI) and Bret Webb (co-PI), Submitted February, Result: Funded for Full Amount

Mobile Bay National Estuary Program, 2017. Fowl River Marsh Study (\$240,000), co-PI with Just Cebrian (PI), Submitted October, Result: Funded for Full Amount.

Alabama Department of Transportation, 2017. Monitoring the Coastal Processes in the Vicinity of Little Lagoon Pass, ALDOT Research Project 930-841R (\$278,853), co-PI with Bret Webb (PI), Submitted March, Result: Funded for Full Amount

Summer Undergraduate Research Fellowship (SURF), 2017. Sedimentological Zonation of a Coastal Dune Lake: Eastern Lake, FL, (\$2,048), prepared with undergraduate student Samuel Barber, Submitted March, Result: Funded for Full Amount

Svenskt Stål AB of Alabama (SSAB AL), 2016. Industrial Partnership (\$22,952), PI with David Allison (co-PI), Submitted July, Result: Funded for Full Amount

National Academy of Sciences (NAS), Early-Career Gulf Research Fellowship Program (GRFP), 2016. Submarine Groundwater Discharge in Mobile Bay (\$76,000) PI, Submitted February 17th, 2016. Result: Not Funded

Center for Environmental Resiliency (CER), 2015. Sustainable Development for Environmental Resiliency: Assessing Benefits of Centralized Wastewater Treatment for Residences along Mobile Bay (\$19,321) PI with Kevin White (co-PI), Submitted August 1st, 2015. Result: Funded for Full Amount.

University of South Alabama University Committee on Undergraduate Research (UCUR), 2015. Characterizing Submarine Groundwater Discharge to Mobile Bay (\$2,454.54), prepared with undergraduate student Dane Leach, Submitted March 13th. Result: Funded for Full Amount

University of South Alabama University Committee on Undergraduate Research (UCUR), 2015. Application and Effectiveness of Biochar as a Fertilizer and as a Substrate for Removing Harmful Nitrates from the Environment (\$2,446.52), prepared with undergraduate student Beverly Lowery, Submitted March 13th. Result: Funded for Full Amount

University of South Alabama Research and Scholarly Development Grant (RSDG), 2015. Characterization of Submarine Groundwater Discharge to Mobile Bay (\$24,984) PI with Brian Dzwonkowski (co-PI) and David Allison (co-PI), Submitted March 1st. Result: Funded for Full Amount.

National Science Foundation Major Research Instrumentation (NSF-MRI), 2015. Acquisition of a Research Grade Wind Tunnel (\$432,887) Co-PI with John Cleary (PI), Submitted January 20th. Result: Not Funded

National Science Foundation Major Research Instrumentation (NSF-MRI), 2015. Acquisition of Powder X-ray Diffractometer (\$375,260) Major User with Grant Glover (PI), Submitted January 20th. Result: Not Funded

College of Arts and Sciences Support and Development Grant, 2015. Enhancement of the University of South Alabama's Hydrology Well Field (\$1,495) PI. Result: Funded for Full Amount.

Alabama Department of Transportation, 2014. Protection of Sensitive Watersheds from Roadway Runoff Pollutants Using "Soil Amended" Vegetated Filter Strips (\$111,509) Co-PI with Kevin White (PI). Result: Not Funded

University of South Alabama Faculty Development Grant, 2014. Evaluation of Novel Filter Media for Enhanced Pollutant Removal in Low-impact Development Stormwater Mitigation Structures (\$5,000). PI. Result: Funded for Full Amount

National Science Foundation Major Research Instrumentation (NSF-MRI), 2014. Acquisition of Powder X-ray Diffractometer (\$375,260) Major User with Grant Glover (PI). Result: Not Funded

Environmental Engineering and Earth Science Department Travel Award, 2012. Travel to the Annual National Geological Society of America Conference in Charlotte, NC. (\$1,500) PI. Result: Funded for Full Amount

HONORS AND AWARDS

College of Arts and Sciences Teaching Excellence Award Recipient, 2018

University Outstanding Thesis Award of The Year Award (Caroline Novy), Nominated as best thesis by the USA Environmental Toxicology Program, 2018

College of Arts and Sciences Teaching Excellence Award Nominee, 2017-2018

South Carolina Environmental Scholars Award for Outstanding Performance and Lasting Contributions to Environmental Engineering and Earth Sciences, Clemson University, 2013

Mobile Rock and Gem Society Field School Award, University of South Alabama, 2008

William E. Wiggs Award for Excellence in Paleontology, University of South Alabama, 2008

John Faggard Geology Award for Highest Academic Standing in Geology, University of South Alabama, 2007

Freshman Geology Hammer Award, University of South Alabama, 2004

SCHOLARSHIPS

Presidential Academic Scholarship, University of South Alabama, 2003-2007

SERVICE

Professional Service

Voting Member of the Scientific Advisory Committee, Mobile Bay National Estuary Program, 2014 - Present

Point of Contact for the NOAA Northern Gulf of Mexico Sentinel Site Cooperative, 2014 - Present

Water Quality Session Chair, Biennial Bays and Bayous Symposium, Mobile, AL, 2018

Program Committee, Biennial Bays and Bayous Symposium, Mobile, AL, 2018

Mobile Bay National Estuary Program Habitat Restoration Committee, 2018

Live Television Interview at the Mobile Battleship: *Soils of the Gulf Coast and Tropical Storm Cindy*, Stephanie Abrams, America's Morning Headquarters, The Weather Channel, June 21, 2017

Water Quality Session Chair and Symposium Co-Chair, Biennial Bays and Bayous Symposium, Mobile, AL, 2014

Working Group Member, National Science Foundation Summit on the Future of Undergraduate Geoscience Education, Austin, TX, 2014

Southeast Regional Carbon Sequestration Technology Training Program, 2010-2013

Geology Club, Member (2005 - 2006) and President (2007), University of South Alabama

Peer Review

Environmental Earth Sciences, 2017-Present

Ecological Engineering, 2015-Present

Environmental Engineering Science, 2015-Present

Grant Peer Review Panel for the NC Water Resources Research Institute - 2017

Community Academic Service

Mobile Regional Science Olympiad, Event Designer and Judge, Dynamic Planet, University of South Alabama, 2018-Present

Mobile Regional Science and Engineering, Judge for Senior Earth Sciences, 2015-Present

University of South Alabama Odyssey Program, 2017-Present

Boy Scouts of America Merit Badge Day, Soil and Water Conservation Merit Badge Counselor, University of South Alabama, March 17th, 2018

Short Course on the Rock Cycle and Tectonics, Mrs. Powell's 9th Grade Homeschool Students, University of South Alabama, February 9th, 2018.

Interview on Sinkhole Hazards, Mrs. Pollock's 5th Grade Class, Dodge Elementary, August 31st, 2017

Recorded Television Interview at the USA Intramural Fields: *Total Solar Eclipse*, Fox Channel 10 News, August 21st, 2017

Mobile Regional Science Olympiad, Event Designer and Judge, Dynamic Planet, and Hydrogeology, Spring Hill College 2014-2016

Alabama Coastal Foundation Video Interview on the Professional Roles of an Environmental Geologist, 2015

EPA Campus Rainworks Challenge Advisor for USA Team, 2015

Alabama Junior Academy of Science Regional Paper Competition, Judge, 2014

College and University Service

Arts and Sciences Faculty Senate, 2018 - Present

Arts and Humanities Seed Grant Review Panel, 2018

Arts and Sciences Science General Education Assessment Committee, 2018-Present

Research and Scholarly Development Grant Review Panel, 2017-Present

College of Arts and Sciences Grievance Committee, 2017-Present

Environmental Toxicology Advisory Board Member, 2014-Present

Colleges of Arts and Sciences Summer Professional Development Awards Committee Member - 2015

Departmental Service

Geology Assessment Committee, 2013-Present (Chair for Geology, 2017-Present)

USA Recruitment Day, 2013-Present

Geology Webmaster, 2014-Present

Geology Instructor Search Committee Member, 2016

Geology Assistant Professor Search Committee Member, 2016

Marine Sciences Geological Oceanographer Search Committee Member, 2016

Curriculum Committee Chair, 2015-2017

Recruitment Committee, 2013-2017

Alumni Relations Committee, 2014-2017

Library Committee, 2013-2015 (Chair, 2013-2014)

Environmental Engineering and Earth Science Department Student Activity Committee, Clemson University, 2011-2012

Environmental Engineering and Earth Science Department Christmas Band, Bass Player, Clemson University, 2010- 2012

Other Service

Dog River Clearwater Revival Fall Fishing Tournament Weigh Master, 2018- Present

Coastal Clean-up Volunteer, Bon Secour River, Bon Secour, AL, 2015- Present

Habitat for Humanity Volunteer, Quail Circle, Central, SC, 2010- 2011

Mobile Bay Kayak Fishing Association, Member and Dog River Clean-up Volunteer, Mobile, AL, 2007-2009

Coastal Clean-up Volunteer, Dog River and Mobile Causeway, Mobile, AL, 1999-2007

PROFESSIONAL SOCIETIES

Faculty Mentor, Sigma Gamma Epsilon Earth Sciences Honors Society

Member, Geological Society of America
Environmental and Engineering Geology Division

Member, American Association of Petroleum Geologists

Member, Alpha Chi National Honor Society