



UNIVERSITY OF OKLAHOMA

DIRECTOR, OKLAHOMA WATER SURVEY;

PROFESSOR,

CIVIL ENGINEERING & ENVIRONMENTAL SCIENCE

CURRICULUM VITA

JASON R. VOGEL, PH.D., P.E.

70% SERVICE, 15% RESEARCH, 15% TEACHING



Jason Robert Vogel, Ph.D., P.E.

Director, Oklahoma Water Survey
Associate Professor, Civil Engineering and Environmental Science
University of Oklahoma
201 Stephenson Pkwy
Five Partners Place, Suite 1102
Norman, OK 73019
Phone: (405) 325-2826

Academic Background

Ph.D., Biosystems Engineering, Oklahoma State University (2001)

Co-Advisors: Dr. C. Thomas Haan and Dr. Glenn O. Brown

Dissertation: Geostatistics of Porous Media Tomography Images
Honors: Graduate Research Excellence Award

M.S., Agricultural Engineering, Texas A&M University (1997)

Advisor: Dr. Clyde Munster

Thesis: Field Studies of Virus Transport in a Heterogeneous Sandy Aquifer

B.S., Biological Systems Engineering, University of Nebraska-Lincoln (1995)

Professional Experience and Major Awards

State of Oklahoma PE: 24934 [Civil Engineering (Water Resources)]

State of Nebraska EI: EI-7262

Director, Oklahoma Water Survey, University of Oklahoma, July 2017-present

Professor, University of Oklahoma, Civil Engineering and Environmental Science, July 2019-present (70% Service, 15% Research, 15% Teaching)

- 2019 Keep Oklahoma Beautiful Environmental Excellence Award finalist, Education Institution Category
- 2019 Keep Oklahoma Beautiful Environmental Excellence Award finalist, Team Builder Category (with OWRB, GRDA, and others)

Associate Director, Water Technologies for Emerging Regions (WaTER) Center, March 2019-present.

Associate Professor, University of Oklahoma, Civil Engineering and Environmental Science, July 2017-June 2019 (70% Service, 15% Research, 15% Teaching)

- 2018 ASABE Educational Aids Blue Ribbon Award—Short Publications
- Certified Trainer for the Water Environment Federation (WEF) National Green Infrastructure Certification Program

Adjunct Associate Professor, Oklahoma State University, Biosystems and Agricultural Engineering, July 2017-present

- Patent Number US9868648B2: “Passive Chemical Dosing and Mixing Apparatus and Method” Granted January 16, 2018.

Associate Professor and Stormwater Specialist, Oklahoma State University, Biosystems and Agricultural Engineering, July 2014-June 2017 (35% Research, 65% Extension)

- Thomas E. Berry Faculty Fellow of Integrated Water Research and Management, 2016-2017
- Interim Graduate Coordinator, 2016

Jason R. Vogel, Ph.D, P.E.

jason.vogel@ou.edu, (405) 325-2826

- 2016 ASABE Standards Development Award
- OSU Faculty Council Information Technology and Long-range Planning Committee Chair, 2016-2017
- OSU Faculty Council, DASNR Representative, 2015-2017
- Water Environment Federation National Stormwater Innovation co-chair, 2015-2017
- 2015 Region 6 Outstanding LID/GI Project Competition, 1st Place, Professional Division; People's Choice Award (in partnership with the City of Oklahoma City)
- 2015 ASABE Educational Aids Blue Ribbon Award—Electronic Delivery
- 2015 CEAT Outreach Excellence Award
- Natural Channel Design Level IV Stream Restoration Certificate, 2015

Assistant Professor and Stormwater Specialist, Oklahoma State University, Biosystems and Agricultural Engineering, December 2009-June 2014 (50% Research, 50% Extension)

- 2014 ASABE Educational Aids Blue Ribbon Award—Electronic Delivery category
- 2013 Nania Corporate Campaign Award (with City of Tulsa and Canterra Concrete)
- 2013 Keep Oklahoma Beautiful Environmental Excellence Award (with Oklahoma Conservation Commission)
- 2012 Outstanding Extension Faculty Award
- 2012 ASABE Educational Aids Blue Ribbon Award—Innovative Extension Methods
- 2012 ASA Educational Materials Awards Program Certificate of Excellence—Publications 16 Pages and Under category
- 2011 ASABE Educational Aids Blue Ribbon Award—Websites

Riata Entrepreneurship Faculty Fellow, Oklahoma State University, Spears School of Business, 2010-2014

Adjunct Associate Professor, University of Nebraska-Lincoln, Biological Systems Engineering, 2009-2014

Research Hydrologist, U.S. Geological Survey, Nebraska Water Science Center, 2008-2009

- Central Region Representative, USGS Fundamental Science Practices Advisory Committee (FSPAC), 2009
- Liaison between USGS North-Central area and US EPA Region 7, 2009

Hydrologist, U.S. Geological Survey, Nebraska Water Science Center, 2002-2008

- Lead Scientist, Agricultural Chemical Transport Topical Study, Central Nebraska Basins Study Unit, National Water Quality Assessment, 2002-2009

Research Engineer, Oklahoma State University, Biosystems and Agricultural Engineering, 1997-2002

- Outstanding Student Paper Award, American Institute of Hydrology Fall Meeting, 2001

Graduate Research Associate, Texas A&M University, Agricultural Engineering, 1995-1996

- Outstanding Student Paper Award, Spring meeting, Texas Section, 1996

Hydrologic Intern, U.S. Geological Survey, Nebraska Water Science Center, 1994-1995

Undergraduate Researcher, Iowa State University/NSF Undergraduate Research Program, 1993

Research Assistant, Biological Systems Engineering, University of Nebraska-Lincoln, 1991-1994

Service

Organized and/or Invited Extension and Outreach

Total: 304 events with approximately 14,0185 in attendance (including 288 events with 13,038 in attendance since becoming a faculty member in December 2009) as of December 31, 2019

Events

1. Organizer and presenter at floating wetland field day with COMCD in Norman, Oklahoma on November 19, 2019; attendance: **19**
2. Invited consultation on LID and the OKR04 permit for the Oklahoma Department of Environmental Quality on October 15, 2019; attendance: **5**
3. Invited consultation on LID with the City of Choctaw on October 15, 2019; attendance: **3**
4. Organized guest presentation by Dr. Neha Bhadbhade from SOPPECOM in India on their water issues in Norman, Oklahoma on September 20, 2019; attendance: **28**
5. Invited consultation for drainage issue at the St. Charles Borromeo Catholic School in Warr Acres, Oklahoma on August 27, 2019; attendance: **4**
6. Co-organizer and presenter at the Water Sampling Workshop in Norman, Oklahoma on August 15-16, 2019; attendance: **19**
7. Co-organizer of Oklahoma Erosion and Sediment Control Inspector Certification Program in Lawton, Oklahoma on August 13, 2019; attendance: **13**
8. Invited presenter on compost filter socks at the OFMA Stormwater Workshop in Norman, Oklahoma on July 17, 2019; attendance: **95**
9. Co-organizer and presenter at the Great Plains LID Research and Innovation Symposium in Fort Collins, Colorado on June 23-25, 2019; attendance: **136**
10. Co-organizer of pervious concrete workshop at Camp TURF in Stillwater, Oklahoma on June 4 and 13, 2019; attendance: **17**
11. Co-organizer and presenter, Oklahoma Erosion and Sediment Control Inspector Certification Program in Broken Arrow, Oklahoma on February 21, 2019; attendance: **37**
12. Co-organizer and presenter, Oklahoma Erosion and Sediment Control Inspector Certification Program in Oklahoma City, Oklahoma on February 21, 2019; attendance: **43**
13. Co-organizer and presenter, Oklahoma Water Survey Open House in Norman, Oklahoma on February 14, 2019; attendance: **22**
14. Organizer and presenter, Floating Wetland Field Day in Norman, Oklahoma on February 12, 2019; attendance: **34**
15. Invited presenter, Broken Arrow High School Environmental Science Class in Broken Arrow, Oklahoma on February 7, 2019; attendance: **28**
16. Invited organizer of the CEES Water Vision retreat in Norman, Oklahoma on December 20, 2018; attendance: **13**
17. Invited participant in the Oklahoma Indirect Potable Reuse meeting in Oklahoma City on December 10, 2018; attendance: **21**
18. Invited consultation on nutrient runoff management in golf course runoff with the Chickasaw Nation in Thackerville, Oklahoma on November 30, 2018; attendance: **10**
19. Invited organizer and participant in the City of Tulsa LID workgroup meeting in Tulsa, Oklahoma on November 26, 2018; attendance: **8**
20. Organizer and participant in OU Water Day in Norman on November 16, 2018; attendance: **127**

21. Invited participant in the OWRB Brackish Water working group in Oklahoma City on November 13, 2018; attendance: **10**
22. Invited participant at the Oklahoma Produced Water Working group in Oklahoma City on November 13, 2018; attendance: **35**
23. Organization and presentation at the LID Field Day with GRDA in Langley, Oklahoma on November 7, 2018; attendance: **28**
24. Invited consultation on nutrient runoff management in golf course runoff with the Chickasaw Nation in Ada, Oklahoma on November 1, 2018; attendance: **9**
25. Invited panel discussion on the Ethics of Stormwater Management at the International Cyber Ethics Conference in Oklahoma City on October 30, 2018; attendance: **20**
26. Invited presentation on Aquifer Transfer and Recharge to the Oklahoma Senate Appropriations Committee at the Capitol Building in Oklahoma City on October 24, 2018; attendance: **50**
27. Invited webinar on Stormwater for Attorneys with NBI on September 28, 2018; attendance: **150**
28. Invited interactive presentation on the Future of Stream Restoration Professionalism with OFMA in Broken Arrow, Oklahoma on September 19, 2018; attendance: **92**
29. Invited presentation on Stormwater and Low Impact Development to the League of Women Voters in Norman, Oklahoma on August 29, 2018; attendance: **27**
30. Invited participant in the OWRB Brackish Water working group in Oklahoma City on August 24, 2018; attendance: **14**
31. Invited panel discussion on the role of higher education in green infrastructure in Albuquerque, New Mexico on August 21, 2018; attendance: **300**
32. Invited panel discussion on the future of bioretention research in Nashville, Tennessee on August 14, 2018; attendance: **30**
33. Invited presenter at the Oklahoma Section ASCE conference in Stillwater, Oklahoma on August 10, 2018; attendance: **100**
34. Invited presenter at the “Plant Materials for the Green Industry Professional and End Consumer” conference in Stillwater, Oklahoma on August 9, 2018; attendance: **115**
35. Invited presenter at the OFMA Stormwater Quality Technical Conference in Midwest City, Oklahoma on July 18, 2018; attendance: **120**
36. Invited presenter on the Oklahoma Water Survey and Low Impact Development Research at the Green Country Stormwater Alliance meeting in Broken Arrow, Oklahoma, on June 7, 2018; attendance: **24**
37. Invited participant at the USGS SCCSC Drought Awareness workshop in Norman, Oklahoma, on June 6, 2018; attendance: **40**
38. Invited presenter and organizer of pervious concrete workshop at Camp TURF with OSU in Stillwater, Oklahoma, on June 5, 2018; attendance: **31**
39. Invited consultation at the ODEQ Indirect Potable Reuse Small Work Group meeting in Oklahoma City, Oklahoma, on June 4, 2018; attendance: **10**
40. Invited organizing committee member for the Southwest Stream Restoration Conference in San Antonio, Texas, on May 30-June 1, 2018; attendance: **145**
41. Invited Organizer and presenter of workshop on uncertainty of rapid geomorphic assessment methods at the Southwest Stream Restoration Conference in San Antonio, Texas, on May 30, 2018; Attendance: **7**

42. Invited consultation on ground water in Oklahoma with Senator David Rader in Oklahoma City, Oklahoma, on May 25, 2018; attendance: **4**
43. Organizer and presenter at dendrogeomorphology workshop with Freese and Nichols in Norman, Oklahoma, on May 23, 2018; attendance: **29**
44. Invited presenter on using constructed wetlands to manage pesticides in nursery runoff with the Oklahoma Department of Agriculture in Stillwater, Oklahoma, on May 2, 2018; attendance: **25**
45. Co-organizer of presentations on the role of the Oklahoma Water Survey for Cherokee Environmental Festival in Chouteau, Oklahoma, on April 27, 2018: Attendance: **147**
46. Co-organizer of presentations on the role of the Oklahoma Water Survey for the Norman Earth Day in Norman, Oklahoma, on April 22, 2018: Attendance: **22**
47. Co-organizer of presentations on the role of the Oklahoma Water Survey for the OU Green Week Sustainability Fair in Norman, Oklahoma, on April 18, 2018: Attendance: **43**
48. Invited presenter at OU Earth Month Activities on the Oklahoma Water Survey as part of the Corix Plains Institute in Norman, Oklahoma, on April 17, 2018; attendance: **41**
49. Co-organizer of presentation at the Second Friday for Earth Week with the City of Norman on the importance of water in Norman, Oklahoma, on April 13, 2018; attendance: **51**
50. Invited moderator and host of low impact development panel at OU Earth Month activities in Norman, Oklahoma, on April 12, 2018; attendance: **45**
51. Invited presenter on graduate school opportunities in engineering with Cameron University in Lawton, Oklahoma, on April 10, 2018; attendance: **31**
52. Invited presenter at ODEQ Lunch and Learn on the Oklahoma Water Survey and LID research updates in Oklahoma City, Oklahoma, on March 27, 2018: attendance: **75**
53. Invited consultation at the ODEQ Indirect Potable Reuse Small Work Group meeting in Oklahoma City, Oklahoma, on March 27, 2018; attendance: **10**
54. Presenter on the Oklahoma Water Survey at Water Day at the Capitol in Oklahoma City, Oklahoma, on March 20, 2018; attendance: **56**
55. Invited consultation on rain gardens with the City of Tahlequah in Tahlequah, Oklahoma, on March 19, 2018; attendance: **7**
56. Invited consultation on bioretention cells at Sooner Power Plant in Red Rock, Oklahoma, on March 15, 2018; attendance: **2**
57. Invited consultation on rainwater harvesting with Terra Verde schools in Norman, Oklahoma, on February 27, 2018; attendance: **5**
58. Invited presenter and organizer of pervious pavement workshop with Oklahoma Conservation Commission, Lake McMurtry, and the Oklahoma Water Resources Board near Stillwater, Oklahoma, on January 26, 2018; attendance: **40**
59. Invited consultation at Water for 2060 Outreach group with Oklahoma Water Resources Board in Oklahoma City, Oklahoma, on January 24, 2018; attendance: **35**
60. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting in Tulsa, Oklahoma, on January 22, 2018; attendance: **11**
61. Invited co-organizer of presentations on best practices for produced water injection for the Bridge Creek Neighborhood Watch in Bridge Creek, Oklahoma, on December 17, 2018: Attendance: **75**
62. Invited consultation with Asa Highsmith, OKC Commissioner, regarding low impact development in Oklahoma City, Oklahoma, on December 5, 2017; attendance: **6**

63. Invited consultation on LID and stream restoration with City of Tahlequah in Tahlequah, Oklahoma, on November 30, 2017; attendance **4**
64. Invited consultation in Water for 2060 Outreach group with Oklahoma Water Resources Board in Oklahoma City, Oklahoma, on November 21, 2017; attendance: **35**
65. Invited presenter on the Oklahoma Water Survey to the EPA Region 6 Tribal Training Workshop on Surface Water Quality Monitoring in Norman, Oklahoma, on October 19, 2017; attendance: **38**
66. Invited organizer of the Water Environment Federation Stormwater and Big Data Conference in Quebec City, Quebec, on June 14-17, 2017; attendance: **96**
67. Invited consultation on erosion control in Midwest City, Oklahoma, on May 11, 2017; attendance: **3**
68. Invited consultation on low impact development with Grand River Dam Authority on April 10, 2017; attendance: **6**
69. Invited rainwater harvesting workshop in Sapulpa, Oklahoma, on March 31, 2017; attendance: **15**
70. Invited presenter and organizer of workshop on gray water for Payne County Master Gardeners on February 28, 2017; attendance: **18**
71. Invited consultation with the OKR10 Construction General Permit Stakeholder Group and the Oklahoma Department of Environmental Quality in Oklahoma City, Oklahoma, on February 15, 2017; attendance: **45**
72. Invited workshop on Erosion Control for Fort Sill in Lawton, Oklahoma, on February 2, 2017; attendance: **56**
73. Invited consultation with the OKR10 Construction General Permit Stakeholder Group and the Oklahoma Department of Environmental Quality in Oklahoma City, Oklahoma, on December 21, 2016; attendance: **42**
74. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting in Tulsa, Oklahoma, on December 15, 2016; attendance: **14**
75. Invited presenter on nursery runoff treatment at the Oklahoma Ag School in Stillwater, Oklahoma, on December 14, 2016; attendance: **180**
76. Invited consultation on the Oklahoma Stream Mitigation Method with the US Army Corps of Engineers in Tulsa, Oklahoma, on December 2, 2016; attendance: **17**
77. Invited consultation on low impact development with the Friends of Lake McMurtry in Stillwater, Oklahoma, on November 23, 2016; attendance: **7**
78. Invited consultation on stormwater management with the City of Durant in Durant, Oklahoma on November 14, 2016; attendance: **7**
79. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on November 1, 2016; attendance: **11**
80. Invited organizer and presenter of an erosion and sediment control workshop for the Southern Plains Tribal Technical Assistance Program in Stillwater, Oklahoma, on October 26, 2016; attendance: **23**
81. Invited presenter at the Oklahoma Ag Expo in Norman, Oklahoma, on October 19, 2016; attendance: **140**
82. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on October 17, 2016; attendance: **13**

83. Invited presenter at the USDA-NIFA Principal Investigator meeting in Washington, D.C., on October 12-13, 2016; attendance: **120**
84. Invited presenter at the Precure Nursery and LID at City of Oklahoma City Parks Tour at the EPA Region 6 Stormwater conference in Oklahoma City, Oklahoma, on October 3, 2016; attendance: **35**
85. Invited organizer and presenter at Design Charrette for GI/LID Planning and Optimization at the Neighborhood Scale, a workshop at the EPA Region 6 Stormwater conference in Oklahoma City, Oklahoma, on October 3, 2016; attendance: **30**
86. Invited presenter on bioseparator for treating fire training center runoff at the Oklahoma DEQ in Oklahoma City, Oklahoma, on September 22, 2016; attendance: **18**
87. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on September 12, 2016; attendance: **8**
88. Invited organizer and presenter of a rainwater harvesting and rain gardens workshop for the Cleveland County Master Gardeners on September 9, 2016; attendance: **31**
89. Organizer and presenter at Treating Nursery Runoff Using Constructed Wetlands workshop in Oklahoma City, Oklahoma, on September 7, 2016; attendance: **28**
90. Invited consultation on rain garden construction and location at the Okmulgee City Hall with the City of Okmulgee Public Works Department in Okmulgee, Oklahoma, on September 2, 2016; attendance: **7**
91. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on August 23, 2016; attendance: **8**
92. Invited presentation on LID to the Keep Oklahoma Beautiful meeting in Oklahoma City, Oklahoma, on July 28, 2016; attendance: **55**
93. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on July 12, 2016; attendance: **10**
94. Invited consultation on runoff management and rainwater harvesting in Sapulpa, Oklahoma, on July 12, 2016; attendance: **3**
95. Invited consultation on rainwater harvesting systems for Ability First in Duncan, Oklahoma, on June 29, 2016; attendance: **6**
96. Invited consultation on rainwater harvesting systems for Santa Fe South school in Oklahoma City, Oklahoma, on June 29, 2016; attendance: **4**
97. Organized and presented at Illinois River Stream Restoration workshop and tour in Tahlequah, Oklahoma, on June 22, 2016; attendance: **38**
98. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on June 14, 2016; attendance: **9**
99. Invited organizer and presenter at a bioretention cell design and construction workshop for the Muscogee-Creek Nation in Okmulgee, Oklahoma, on June 10, 2016; attendance: **31**
100. Organized workshop on stream restoration by Doug Shields with the Oklahoma Water Resources Center in Arcadia, Oklahoma, on June 2, 2016; attendance: **64**
101. Invited oversight and design of a bioretention cell in collaboration with the Muscogee-Creek Nation in Okmulgee, Oklahoma, on May 18-20; attendance: **8**
102. Invited presentation on Water Quality Research in Oklahoma to the Beaver Watershed Alliance in Bentonville, Arkansas, on May 13, 2016; attendance: **52**
103. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on May 10, 2016; attendance: **10**

104. Invited consultation on rain gardens with Friends of Crow Creek in Tulsa, Oklahoma, on May 10, 2016; attendance: **16**
105. Invited consultation on streambank stabilization at Twin Lakes Sports Club near Crescent, Oklahoma, on April 22, 2016; attendance: **5**
106. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on April 12, 2016; attendance: **12**
107. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on March 22, 2016; attendance: **12**
108. Invited advisor and judge for the LID Competition in Omaha, Nebraska, on March 8, 2016; attendance: **108**
109. Invited co-organizer of the 2nd Biennial Great Plains LID Research and Innovation Symposium in Omaha, Nebraska, on March 7-9, 2016; attendance: **164**
110. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on February 9, 2016; attendance: **15**
111. Invited consultation on runoff management in Mounds, Oklahoma, on February 9, 2016; attendance: **4**
112. Invited consultation on rainwater harvesting for the University of Central Oklahoma in Edmond, Oklahoma, on February 2, 2016; attendance: **3**
113. Invited and organized workshop on Bioretention Cell Maintenance for Corvias Solutions Military Housing at Fort Sill, Oklahoma, on January 19, 2016; attendance: **47**
114. Invited consultation on LID and riparian protection for the Friends of Crow Creek in Tulsa, Oklahoma, on January 3, 2016; attendance: **6**
115. Invited presentation on LID at the Tulsa Landscape and Remodel Show in collaboration with Tulsa Partners in Tulsa, Oklahoma, on January 10, 2016; attendance: **95**
116. Invited consultation on stream restoration by Friends of Crow Creek in Tulsa, Oklahoma, on December 4, 2015; attendance **5**
117. Invited consultation on LID at the Oklahoma City Sustainability Plan Water Subcommittee in Oklahoma City, Oklahoma, on November 16, 2015; attendance: **16**
118. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on November 12, 2015; attendance: **12**
119. Invited consultation on LID at the Oklahoma City Sustainability Plan Water Subcommittee in Oklahoma City, Oklahoma, on October 30, 2015; attendance: **16**
120. Invited presentation on Stormwater and LID for OLLI at the Stillwater Library in Stillwater, Oklahoma, on October 29, 2015; attendance: **21**
121. Invited organizer and presenter at erosion control and LID workshop for the City of Oklahoma City in Oklahoma City, Oklahoma, on October 27, 2015; attendance: **77**
122. Invited presenter at EPA Region 6 LID/GI Panel Forum in Hot Springs, Arkansas, on October 21, 2015; attendance: **70**
123. Invited presenter at ASLA conference Botanic Garden LID tour in Stillwater, Oklahoma, on October 17, 2015; attendance: **19**
124. Invited organizer of stream cleanup with USGBC at Boomer Creek in Stillwater, Oklahoma, on October 17, 2015; attendance: **10**
125. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on October 14, 2015; attendance: **12**

126. Invited organizer and presenter at Erosion and Sediment Control workshop for the Tribal Technical Assistance Program in Stillwater, Oklahoma, on October 7, 2015; attendance: **38**
127. Invited consultation on LID competitions in Omaha, Nebraska, on September 11, 2015; attendance: **21**
128. Invited presentation on LID and pollution at Stillwater High School in Stillwater, Oklahoma, on September 4, 2015; attendance: **27**
129. Invited consultation on detention pond management with neighborhood association in Yukon, Oklahoma, on September 2, 2015; attendance: **10**
130. Invited consultation on erosion issues at private residence in Norman, Oklahoma, on August 21, 2015; attendance: **4**
131. Invited consultation on LID for the Tisdale Food Forest in Tulsa, Oklahoma, on August 20, 2015; attendance: **14**
132. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on August 20, 2015; attendance: **12**
133. Invited consultation on rain gardens for the Muscogee-Creek Nation in Okmulgee, Oklahoma, on August 13, 2015; attendance: **4**
134. Invited presenter and subject matter expert on LID at City of Tulsa LID Workgroup meeting, Tulsa, Oklahoma, on July 30, 2015; attendance: **12**
135. Organizer and presenter at nursery runoff management workshop in Coweta and Hulbert, Oklahoma, on July 7, 2015; attendance: **30**
136. Invited consultation on erosion management in Norman, Oklahoma, on June 22, 2015; attendance: **4**
137. Invited organizer and presenter at Illinois River Stream Restoration Workshop and Tour in Tahlequah, Oklahoma, on June 16, 2015; attendance: **40**
138. Invited presenter on pervious concrete at Camp TURF in Stillwater Oklahoma, on June 2 and 12, 2015; attendance: **60**
139. Invited organizer and presenter of workshop on rainwater harvesting and rain gardens with City of Lawton stormwater in Lawton, Oklahoma, on May 20, 2015; attendance: **45**
140. Invited consultation on streambank erosion in Oklahoma City, Oklahoma, on May 15, 2015; attendance: **7**
141. Invited participant in City of Tulsa LID workgroup meeting in Tulsa, Oklahoma, on May 14, 2015; attendance: **15**
142. Invited presentation on rainwater harvesting for the Oklahoma Green Schools Initiative in Sand Springs, Oklahoma, on May 13, 2015; attendance: **130**
143. Invited in-service workshop presentation on "Taking Water for Granted" in Claremore, Oklahoma, on May 12, 2015; attendance: **16**
144. Organizer of 2-day workshop on RVR Meander modeling in Stillwater, Oklahoma, on April 10-11, 2015; attendance: **25**
145. Invited presenter on pervious concrete maintenance at Oklahoma Floodplain Managers Meeting in Catoosa, Oklahoma, on April 2, 2015; attendance: **40**
146. Invited participant in City of Tulsa LID workgroup meeting in Tulsa, Oklahoma, on April 1, 2015; attendance: **15**
147. Invited participant in City of Tulsa LID workgroup meeting in Tulsa, Oklahoma, on February 19, 2015; attendance: **15**

148. Invited bioretention cell consultation with City of Lawton in Lawton, Oklahoma, on February 17, 2015; attendance: **3**
149. Invited stream restoration consultation with City of Tulsa on stream restoration in Crow Creek in Tulsa, Oklahoma, on February 12, 2015; attendance: **10**
150. Invited rainwater harvesting consultation with company from Lawton, Oklahoma, interested in selling rainwater harvesting equipment on February 2, 2015; attendance: **2**
151. Invited LID consultation with group of homeowners in Brady Heights district in Tulsa, Oklahoma, on January 22, 2015; attendance: **12**
152. Invited participant in City of Tulsa LID workgroup meeting in Tulsa, Oklahoma, on January 22, 2015; attendance: **15**
153. Invited drainage consultation with homeowner in conjunction with the Natural Resources Conservation Service in Broken Arrow, Oklahoma, on December 12, 2014; attendance: **10**
154. Invited organizer and presenter at “Bioretention and Erosion Control Workshop” in conjunction with Corvias Family Housing at Fort Sill, Oklahoma; on December 9, 2014; attendance: **58**
155. Invited organizer and presenter at “Erosion Control Workshop” in conjunction with the Southern Plains Tribal Technical Assistance program at the Prairie Band Pottawatomie Reservation near Mayetta, Kansas, on November 5, 2014; attendance: **12**
156. Invited organizer and presenter at pervious concrete coring demonstration in Tulsa, Oklahoma, on October 7, 2014; attendance: **7**
157. Invited panel member on the Sensitive Areas section of the PlanOKC strategic plan in Oklahoma City, Oklahoma, on September 23, 2014; attendance: **31**
158. Invited organizer and presenter at “Erosion Control Workshop” in conjunction with the Southern Plains Tribal Technical Assistance program in Stillwater, Oklahoma, on November 5, 2014; attendance: **28**
159. Presenter at Oklahoma Irrigation Conference on “Streambank Stability Methods” in Fort Cobb, Oklahoma, on August 19, 2014; attendance: **77**
160. Invited member of “16th Annual EPA Region 6 Stormwater Conference” planning committee in Fort Worth, Texas, on July 28-31, 2014; attendance: **300**
161. Invited organizer of “Green Country LID Competition Green Street Winners Showcase” with the Green Country Stormwater Alliance in Broken Arrow, Oklahoma, on July 10, 2014; attendance: **37**
162. Invited rain garden design consultation with the City of Tahlequah and the Cherokee Nation in Tahlequah, Oklahoma, on July 8, 2014; attendance: **3**
163. Invited organizer and presenter at Illinois River Stream Restoration Workshop and Tour in Tahlequah, Oklahoma, on June 25, 2014; attendance: **26**
164. Invited organizer of “Green Country LID Competition Winners Showcase” in Tulsa, Oklahoma, on June 24, 2014; attendance: **28**
165. Invited presenter on rainwater harvesting in Woodward, Oklahoma, on June 11, 2014; attendance: **75**
166. Invited drainage consultation with Unitarian Church in Stillwater, Oklahoma, on June 6, 2014; attendance: **4**

167. Invited organizer and presenter at “Bioretention Cell Design and Construction” workshop and field tour in Midwest City and Oklahoma City, Oklahoma, on June 5, 2014; attendance: **18**
168. Invited presenter of pervious concrete workshop at Camp TURF in Stillwater, Oklahoma, on June 3 and 13; attendance: **30**
169. Invited presenter on “Design and Construction of Stormwater BMPs” webinar for the Center for Watershed Protection on April 7, 2014; attendance: **93**
170. Invited organizer of “Green Country LID Competition Finals Gala” in conjunction with Greenroofs for Healthy Cities and the Green Country Sustainability Forum in Tulsa, Oklahoma, on April 3, 2014; attendance: **150**
171. Invited organizer and presenter at the “Great Plains LID Research and Innovation Symposium” in conjunction with the Green Country Sustainability Forum in Catoosa, Oklahoma, on April 3, 2014; attendance: **100**
172. Invited organizer of the “Introduction to Green Roof Design and Installation” workshop in conjunction with Green Roofs for Healthy Cities and the Green Country Sustainability Forum in Tulsa, Oklahoma, on April 2, 2014; attendance: **15**
173. Invited organizer of Green Country Sustainability Forum planning meeting in Tulsa, Oklahoma, on January 30, 2014; attendance: **12**
174. Invited organizer of “Pervious Concrete Brown Bag Lecture and Infiltration Demonstration” brown bag workshop in conjunction with the Green Country Sustainability Forum in Tulsa, Oklahoma, on March 10, 2014; attendance: **25**
175. Invited organizer of “Roadblocks to Low Impact Development” brown bag workshop in conjunction with the Green Country Sustainability Forum in Tulsa, Oklahoma, on March 5, 2014; attendance: **24**
176. Invited organizer of Green Country Sustainability Forum planning meeting in Tulsa, Oklahoma on January 30, 2014; attendance: **14**
177. Invited organizer of “Green Solutions for Parking, Paving, and Drainage: Flexible Plastic Porous & Other Systems” brown bag workshop in conjunction with the Green Country Sustainability Forum in Tulsa, Oklahoma, on February 19, 2014; attendance: **27**
178. Invited presenter at rainwater harvesting workshop with Master Gardeners in Stillwater, Oklahoma, on February 11, 2014; attendance: **12**
179. Invited organizer of Green Country Sustainability Forum planning meeting in Tulsa, Oklahoma, on January 30, 2014; attendance: **9**
180. Invited organizer of “Integrated Design Approach to Stormwater Management” brown bag workshop in conjunction with the Green Country Sustainability Forum in Tulsa, Oklahoma, on January 30, 2014; attendance: **25**
181. Invited organizer of “LEED Lunch and Learn” workshop in conjunction with the Green Country Sustainability Forum in Tulsa, Oklahoma, on January 24, 2014; attendance: **20**
182. Invited organizer of Green Country Sustainability Forum planning meeting in Tulsa, Oklahoma, on January 16, 2014; attendance: **11**
183. Invited presenter at the “Horticulture Industries Show” on Rainwater Harvesting in Tulsa, Oklahoma, on January 10, 2015; attendance: **58**
184. Invited presenter at the “Sustainable Communities” workshop with the Oklahoma Conservation Commission in Norman, Oklahoma on December 9, 2013; attendance: **40**

185. Organizer and presenter at the “Using Flocculants for Turbidity Reduction in Construction Site Runoff” workshop with the Tribal Technical Assistance Program and ODOT in Stillwater, Oklahoma, on November 15, 2013; attendance: **22**
186. Invited organizer and facilitator of the “Green Country LID Competition Kickoff Event” in Tulsa, Oklahoma, on November 14, 2013; attendance: **35**
187. Invited organizer and presenter at workshop on “Stormwater Pollution Prevention” for Corvias Housing employees at Fort Sill, Oklahoma, on October 9, 2013; attendance: **40**
188. Invited presenter for mobile workshop on “Stream Bank Restoration” for the Oklahoma Chapter of the American Planning Association in Tahlequah, Oklahoma, on October 4, 2013 ; attendance: **30**
189. Invited organizer and presenter at workshop on “Rain Gardens” for the Cleveland County Master Gardeners in Norman, Oklahoma, on September 12, 2013; attendance: **28**
190. Invited organizer and presenter at workshop on “Erosion Control” for the Tribal Technical Assistance Program in Stillwater, Oklahoma, on September 10, 2013; attendance: **29**
191. Invited presenter at Water Source Development Workshop Seminar on “Rainwater Harvesting” with the Noble Foundation in Ardmore, Oklahoma, on August 6, 2013; attendance: **90**
192. Invited co-presenter on a webinar on “Rainwater Harvesting” on July 30, 2013; attendance: **38**
193. Invited organizer and presenter at workshop on “Rain Barrels” for the Deer Creek Conservation District in Weatherford, Oklahoma, on June 29, 2013; attendance: **35**
194. Invited organizer and presenter at workshop on “Pervious Pavement” for Camp TURF in Stillwater, Oklahoma, on June 11 and 21, 2013; attendance: **19**
195. Organizer and presenter of the Illinois River Stream Restoration Field Workshop and Tour in Tahlequah, Oklahoma, on June 6, 2013; attendance: **28**
196. Invited presenter on Natural Stream Corridor Stabilization and Restoration at the Current Issues in Horticulture workshop in Stillwater, Oklahoma, on June 4, 2013; attendance: **65**
197. Invited conference committee member for the Southwest Stream Corridor Restoration Conference in San Antonio, Texas, in May, 2013; attendance: **300**
198. Invited organizer and presenter at workshop on “Erosion Control at Construction Sites” for Picerne Housing employees at Fort Sill, Oklahoma, on May 9, 2013; attendance: **9**
199. Organizer and co-presenter at workshop on “Rainwater Harvesting and Composting” for the Cleveland County Master Gardeners in Norman, Oklahoma, on May 7, 2013; attendance: **28**
200. Invited organizer and presenter at workshop on “Rainwater Harvesting” for the City of Lawton in Lawton, Oklahoma, on April 16, 2013; attendance: **89**
201. Organizer and co-presenter at “Watershed Academy” in Midwest City, Oklahoma, on April 9-10, 2013; attendance: **60**
202. Invited panel member for the Oklahoma Floodplain Managers Association meeting on “Low Impact Development” in Tulsa, Oklahoma, on April 4, 2013; attendance: **40**
203. Invited co-facilitator at the workshop on “Planting for Stream Restoration” in Tahlequah, Oklahoma, on March 18-19, 2013; attendance: **65**
204. Invited organizer and presenter at workshop on “Rainwater Harvesting” for the Garfield County Master Gardeners in Enid, Oklahoma, on March 12, 2013; attendance: **42**

205. Invited presenter at workshop on “Rainwater Collection” at the Twilight Gardening Series in Stillwater, Oklahoma, on February 28, 2013 ; attendance: **12**
206. Invited organizer and presenter at workshop on “Low Impact Development” for City of Tulsa Stormwater Division in Tulsa, Oklahoma, on January 25, 2013; attendance: **42**
207. Presenter at “Pervious Concrete Demonstration and Infiltration Tests” in Tulsa, Oklahoma, on December 14, 2012; attendance: **8**
208. Invited presenter at “Quality Urban Streams” workshop, in Broken Arrow, Oklahoma, on December 3, 2012; attendance: **48**
209. Invited presenter to Oklahoma Scenic Rivers Commission on “Illinois River Streambank Stabilization Project” in Tahlequah, Oklahoma, on November 27, 2012; attendance: **20**
210. Invited presenter for Oklahoma City Green Infrastructure Education Program on “Natural Stream Restoration” in Oklahoma City, Oklahoma, on November 27, 2012; attendance: **25**
211. Invited conference committee member for the Oklahoma Water Research Symposium in Tulsa, Oklahoma, on November 13-14, 2012 ; attendance: **200**
212. Natural Stream restoration open house in Tahlequah, Oklahoma, on November 9, 2012; attendance: **25**
213. Invited co-presenter at the COSWA Stormwater Conference on “Alternatives to the buffer requirement for OKR10” in Oklahoma City, Oklahoma, on November 7, 2012; attendance: **100**
214. Invited conference committee member for the “National Non-Point Source Monitoring Workshop” in Tulsa, Oklahoma, on October 14-17, 2012; attendance: **120**
215. Booth on natural stream restoration at the “Restoration of Our Rivers” Conference in Bentonville, Arkansas, on October 4-5, 2012 ; attendance: **100**
216. Invited co-presenter at the Tulsa Resource Management Workshop on “Alternatives to the buffer requirement for OKR10” in Broken Arrow, Oklahoma, on October 3, 2012; attendance: **95**
217. Invited presenter and participant in City of Weatherford Stormwater Design Meeting in Weatherford, Oklahoma, on October 2, 2012; attendance: **16**
218. Invited presenter at the Oklahoma Municipal League on “Low Impact Development for Stormwater Management—A New Paradigm Utilizing Old Technologies” in Oklahoma City, Oklahoma, on September 26, 2012; attendance: **24**
219. Invited organizer and presenter at invited workshop on “Stormwater Management in Oklahoma” for Picerne Housing employees at Fort Sill, Oklahoma, on September 25, 2012; attendance: **42**
220. Invited co-host on LID tour for the Oklahoma Floodplain Managers Association in Tulsa, Oklahoma, on September 18, 2012; attendance: **56**
221. Invited presentation on “Innovative LID-related Educational Outreach Activities from Oklahoma Cooperative Extension Service” at the Oklahoma Floodplain Managers Association Annual Meeting in Broken Arrow, Oklahoma, on September 18, 2012; attendance: **110**
222. Co-organized and presented at Natural Stream Restoration Field Day (workshop) in Tahlequah, Oklahoma, on September 12, 2012; attendance: **75**

223. Invited presentation for Oklahoma City Green Infrastructure Education Program on “Rainwater Harvesting Systems” in Oklahoma City, Oklahoma, on July 25, 2012; attendance: **50**
224. Organized and presented workshop on “Pervious Pavement and Pervious Concrete” for Chinese Landscape Architecture graduate students in Stillwater, Oklahoma, on July 19, 2012; attendance: **24**
225. Co-organized and presented at “Natural Stream Restoration Design Workshop” in Tahlequah, Oklahoma, on July 24, 2012; attendance: **48**
226. Co-organized and presented at Natural Stream Restoration Field Day (workshop) in Tahlequah, Oklahoma, on July 13, 2012; attendance: **47**
227. Invited presentation at Oklahoma City Green Roof Symposium on “Water-related Green Roof Research in Oklahoma” in Oklahoma City, Oklahoma, on July 12, 2012 ; attendance: **200**
228. Co-organized workshop on “Composting and Rainwater Harvesting” in Lawton, Oklahoma, on July 11, 2012 ; attendance: **24**
229. Invited mentor for the Lawton High School Envirothon team on Low Impact Development in Lawton, Oklahoma, on July 10, 2012; attendance: **5**
230. Invited presenter on pervious pavement and bioretention cells for Texas Master Gardeners’ tour of the Botanic Garden at OSU in Stillwater, Oklahoma, on July 9, 2012; attendance: **6**
231. Co-organized workshop on “Inspection of Stream Restoration Sites” in Tahlequah, Oklahoma, on June 21, 2012; attendance: **48**
232. Organized and presented workshop at Camp TURF on “Pervious Concrete” in Stillwater, Oklahoma, on June 19 and 29, 2012; attendance: **24**
233. Invited presenter at State Master Gardeners conference on “Green Roofs” in Stillwater, Oklahoma, on June 15, 2012; attendance: **80**
234. Completed and presented at quarterly infiltration testing at City of Tulsa Pervious Concrete demo site in Tulsa, Oklahoma, on June 14, 2012; attendance: **15**
235. Invited presenter on pervious pavement and bioretention at the Oklahoma Mesonet Field tour in Stillwater, Oklahoma, on June 7, 2012; attendance: **30**
236. Invited presenter on pervious pavement, bioretention, and stormwater wetlands at the Soil and Water Conservation Conference Field tour in Stillwater, Oklahoma, on June 7, 2012; attendance: **50**
237. Co-organized workshop on “Composting and Rainwater Harvesting” in Clinton, Oklahoma, on June 2, 2012; attendance: **22**
238. Participated in Inter-agency Water Quantity Monitoring Forum in Oklahoma City, Oklahoma, on June 1, 2012; attendance: **60**
239. Invited presenter at the OSU Landscape IPM workshop on Low Impact Development in Stillwater, Oklahoma, on May 17, 2012; attendance: **100**
240. Co-organized workshop on “Composting and Rainwater Harvesting” in Woodward, Oklahoma, on May 12, 2012; attendance: **18**
241. Invited presenter at Botanic Garden Brown Bag Luncheon on rainwater harvesting in Stillwater, Oklahoma, on May 10, 2012; attendance: **15**
242. Co-organized workshop on “Composting and Rainwater Harvesting” in Okeene, Oklahoma, on April 28, 2012; attendance: **10**

243. Invited presenter on green entrepreneurship at OSU Riata Entrepreneurship Faculty Fellows Symposium in Stillwater, Oklahoma, on April 13, 2012; attendance: **25**
244. Organized workshop on stormwater wetlands in Stillwater, Oklahoma, on March 28, 2012; attendance: **40**
245. Organized pervious concrete infiltration demonstration in Tulsa, Oklahoma, on March 15, 2012; attendance: **25**
246. Co-organized workshop on pervious concrete in Tulsa, Oklahoma, on March 6-7, 2012; attendance: **35**
247. Meeting with City of Choctaw officials on community stormwater management plan development in Choctaw, Oklahoma, on February 10, 2012; attendance: **5**
248. Invited presentation on pervious concrete at the Oklahoma Ready-Mixed Concrete Association Meeting in Oklahoma City, Oklahoma, on February 3, 2012; attendance: **115**
249. Presented at OSU Biannual Extension Conference on low impact in Stillwater, Oklahoma, development on January 17-18, 2012; attendance: **25**
250. Invited member of OKR10 Construction General Stormwater Permit planning committee, in Oklahoma City, Oklahoma, December 2011-March 2012 (4 meetings); total attendance: **80**
251. Invited presentation on Natural Stream Restoration to Tahlequah city council, in Tahlequah, Oklahoma, on December 5, 2011; attendance: **40**
252. Co-organized workshop on “Natural Stream Corridor Restoration and Enhancement: Plant Selection, Installation, and Maintenance” in Stillwater, Oklahoma, on November 9, 2011; attendance: **50**
253. Co-organized and presented at workshop on “Natural Stream Corridor Restoration and Enhancement: Engineering Methods” in Stillwater, Oklahoma, on November 8, 2011; attendance: **50**
254. Booth on OSU Natural Stream Restoration Research and Extension Program at the Oklahoma Governor’s Water Conference, in Norman, Oklahoma, on October 18-19, 2011; attendance: **400**
255. Invited member of planning committee for Oklahoma Water Research Conference, in Norman, Oklahoma, on October 18-19, 2011; attendance: **400**
256. Invited presenter at Oklahoma Floodplain Managers Annual meeting titled “Recent Low Impact Development Advances and Innovations for Managing Stormwater Quantity and Quality” in Norman, Oklahoma, on September 20, 2011; attendance: **100**
257. Booth on OSU Natural Stream Restoration Research and Extension Program at the Oklahoma Floodplain Managers Annual meeting, in Norman, Oklahoma, on September 19-21, 2011; attendance: **150**
258. Invited presentation and public discussion at Weatherford City Council meeting titled “Project update on a Community Stormwater Management Plan for Weatherford” in Weatherford, Oklahoma, on August 31, 2011; attendance: **60**
259. Invited consultation on bioretention cell design and construction at the First Christian Church in Midwest City, Oklahoma, on August 31, 2011; attendance: **12**
260. Invited presenter at on low impact development at the “Current Challenges in Horticulture” workshop in Stillwater, Oklahoma, on August 25, 2011; attendance: **60**
261. Invited workshop on making pervious concrete at Camp TURF at OSU Botanical Gardens in Stillwater, Oklahoma, on June 14, 2011; attendance: **20**

262. Invited workshop on pervious pavement at the Oklahoma Master Gardener State Conference in Enid, Oklahoma on June 3, 2011; attendance: **15**
263. Invited workshop on rainfall harvesting at the Oklahoma Master Gardener State Conference in Enid, Oklahoma, on June 3, 2011; attendance: **45**
264. Invited Co-presenter at 4H Stem Institute on rainwater harvesting in Stillwater, Oklahoma, on June 2, 2011; attendance: **42**
265. Co-presented at Southeast District OCES Conference regarding rainfall harvesting in Ada, Oklahoma, on May 17-18, 2011; attendance: **50**
266. Invited webinar presenter titled "Water Conservation and Stormwater Management for Developers: Extension Programs in Oklahoma" on April 26, 2011; attendance: **51**
267. Invited presenter on "Use of Gravel as a Pervious Surface" at Green Country Stormwater Alliance meeting, in Broken Arrow, Oklahoma, on April 6, 2011; attendance: **50**
268. Organized and presented workshop titled "Stormwater 101" in Weatherford, Oklahoma, on March 25, 2011; attendance: **14**
269. Booth on OSU Erosion and Sediment Control Research and Extension Program at the City of Tulsa Erosion Control workshop in Tulsa, Oklahoma, on March 24, 2011; attendance: **75**
270. Invited presenter at Oklahoma Department of Environmental Quality Brown Bag Luncheon on Cow Creek Stream Restoration Project in Oklahoma City, Oklahoma, on March 16, 2011; attendance: **75**
271. Invited organizer and presenter for Boy Scout University Training badge on Soil and Water in Stillwater, Oklahoma, on February 12, 2011; attendance: **15**
272. Organized watch site and facilitated discussion for USDA-Southern Region webinar titled "Water-efficient irrigation technologies: Florida, North Carolina, and Oklahoma Extension Programs" on February 8, 2011; attendance: **6**
273. Organized watch site and facilitated discussion for USDA-Southern Region webinar titled "Yards and Neighborhoods programs: stories from Florida, South Carolina, and Tennessee" on January 18, 2011; attendance: **8**
274. Invited presenter on Low Impact Development at Oklahoma Community Development Academy in Shawnee, Oklahoma, on January 8, 2011; attendance: **13**
275. Invited presenter at Oklahoma Conservation Commission "Quality Urban Stream Workshop" in El Reno, Oklahoma, on December 10, 2010; attendance: **35**
276. Organized and facilitated discussion for the EPA webinar "Designing LID to Work: Lessons Learned from North Carolina" on December 9, 2010; attendance: **20**
277. Co-organized "Sustainable Agriculture Field Day" in Woodward, Oklahoma, on November 13, 2010; attendance: **70**
278. Organized and presented at a Rainfall Harvesting workshop in Woodward, Oklahoma, on November 13, 2010; attendance: **17**
279. Booth on OSU Low Impact Development Research and Extension Program at the Oklahoma Municipal League Annual Meeting in Oklahoma City, Oklahoma, on September 29-30, 2010; attendance: **300**
280. Booth on OSU Low Impact Development Research and Extension Program at the Oklahoma Floodplain Managers Association Annual Meeting in Broken Arrow, Oklahoma, on September 20-21, 2010; attendance: **100**

281. Invited member of planning committee for Osage Nation Watershed Planning conference that was held in Tulsa, Oklahoma, on August 24-25, 2010; attendance: **200**
282. Facilitated tour of LID demonstration sites at the OSU Botanical Gardens in Stillwater, Oklahoma, on July 14, 2010; attendance: **50**
283. Booth on OSU Low Impact Development Research and Extension Program at the Stillwater Garden Festival in Stillwater, Oklahoma, on June 12, 2010; attendance: **150**
284. Booth on OSU Low Impact Development Research and Extension Program at the Oklahoma Sustainability Network Annual conference in Edmond, Oklahoma, on June 11, 2010; attendance: **120**
285. Booth on OSU Low Impact Development Research and Extension Program at the “Green Building, Blue Water” regional meeting in Tulsa, Oklahoma, on May 25-26, 2010; attendance: **90**
286. Organized and presented training workshop on “Designing and Specifying Pervious Concrete” at the OSU Botanical Gardens in Stillwater, Oklahoma, in April 2010; attendance: **18**
287. Organized and presented training workshop on “Engineered Rainwater Collection and Case Studies for Sustainable Water Management” at OSU-OKC in Oklahoma City, Oklahoma, on March 8, 2010; attendance: **42**
288. Organized watch three watch sites in Oklahoma for USDA Southern Region webcast titled “Vegetation for Restoring Riparian Ecosystems and Treating Stormwater” in February 2010; attendance: **35**
289. Organized first-ever joint meeting of the Nebraska Surface Water Monitoring Council (NSWMC) and the Nebraska Ground Water Monitoring Advisory Committee (NGWMAC) on December 10, 2008; focus on ground water/surface water interactions; speakers included Elizabeth Esseks (Nebraska Health and Human Services), Christopher Hobza (USGS), and Duane Woodward (Central Platte Natural Resources District); attendance: **50**
290. Invited keynote speaker at Central Nebraska Area Health Education Center, Water Forum, “Pharmaceuticals and Emerging Contaminants in the Environment,” cosponsored by the Nebraska League of Conservation Voters and the Central Nebraska Health Department, on September 4, 2008; attendance: **40**
291. Organized two general invitation seminars entitled “Environmental Stewardship of an Agricultural Chemical Company” by Scott Jackson, BASF Corporation, Research Triangle, NC, and “USGS Fungicide Research in the United States” by Mark Sandstrom, USGS National Water Quality Laboratory, in August 2008; attendance: **25**
292. Organized two general invitation seminars entitled “The Occurrence of Bacterial Pathogens in Surface Water” by Joseph Duris, USGS Michigan Water Science Center and “The Occurrence of Bacterial Pathogens in Surface Water” by Lisa Reynolds Fogarty, USGS Michigan Water Science Center, in June 2008; attendance: **25**
293. Invited speaker at UN-L Civil Engineering Seminar, March 2008, “Water Quality Impacts of Combined Sewer Overflows in Omaha, Nebraska”; attendance: **15**
294. Organized and led interactive seminar for Papillion Creek Watershed Partnership, for city, county, and state officials from the Omaha, Nebraska, area entitled “A discussion of the monitoring and data needs to reach water quality goals for the Papillion Creek Basin” on January 24, 2008; attendance: **20**

295. Invited participant in “Endocrine Disrupting Compounds in Nebraska” interest group meeting held to discuss and facilitate cooperation among researchers studying EDCs in Nebraska on December 7, 2007; attendance: **25**
296. Invited participant in “Cole Creek Restoration Design Charette Workshop” for City of Omaha Stormwater Division on November 14, 2007; attendance: **30**
297. Invited speaker and “Hot Topics” panelist at Nebraska Pharmacists Association & Nebraska Pharmacy Foundation Annual Convention, panel discussion on pharmaceuticals in the environment research in Nebraska, on July 20, 2007; attendance: **200**
298. Invited participant and expert panelist in Groundwater Foundation seminar “Pharmaceuticals and Personal Care Products in Drinking Water” discussion focused on “Pharmaceuticals and Personal Care Products in the Waters of Nebraska - Potential Risks and Best Practices” on April 25, 2007; attendance: **60**
299. Organized seminar for Nebraska Department of Environmental Quality personnel and “*Bacteroides* and PCR-Based Assays: A Potential Source Tracking Tool?” by Regina Lamendella, US EPA contractor from Cincinnati, in June 2006; attendance: **20**
300. Organized seminar for Nebraska Department of Environmental Quality personnel, “Microbial Source Tracking in Plum Creek” by Jason Vogel in December 2006; attendance: **20**
301. Presenter for Omaha Chamber of Commerce, “Omaha Combined Sewer Overflow Monitoring Project” in October 2006; attendance: **30**
302. Organized general invitation seminar, “Microbial Source Tracking: How will it work?” by Don Stoeckel, USGS Ohio Water Science Center, in 2004; attendance: **40**
303. Invited speaker to Technical University of Berlin Graduate Seminar, “Pharmaceutical Removal by Bank Filtration in the Platte River, USA” in 2003; attendance: **15**
304. Organizer and Presenter at USGS/Germany Riverbank Filtration Symposia, Riverbank Filtration of Microbes and Chemicals; presentations by Eric Lee (City of Lincoln Water System), Jason Vogel (USGS), David Rus (USGS), Greg Steele (USGS), Jeanette Thurston-Enriquez (USDA-ARS), Joe Skopp (University of Nebraska), Uwe Duennbier (Berlin Water System), Thomas Heberer (Technical University of Berlin), Gunnar Nuetzmann, (Humboldt University of Berlin), and Birgit Fritz (Centre of Competence for Water Berlin) in March 2003; attendance: **30**

Outreach Publications, Educational Aids, and Contacts

(80 total: 19 Outreach Publications; 6 websites: 156,552 website visits between March 8, 2010, and December 31, 2018, and 826,658 Twitter tweet views (impressions) with a combined 1,042 followers between July 9, 2014, and February 6, 2020; 9 archived television segments and 9 other videos with a combined 195,013 total views as of February 6, 2020; 36 newsletter/media contacts)

Outreach Publications

1. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2019. POND: Wetlands, OWS-B2008, 4pp.
2. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Protecting Our Neighborhood Detention, OWS-B2001, 4 pp.
3. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Watersheds, OWS-B2002, 4 pp.
4. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Pond Management, OWS-B2003, 8 pp.

5. Ellingson, M., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Shoreline Erosion, OWS-B2004, 4 pp.
6. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Pollution Prevention-Pet Waste, Fertilizers, Yard Clippings, Loose Soil, OWS-B2007, 4 pp.
7. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Rain Gardens, OWS-B2009, 4 pp.
8. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Rain Barrels, OWS-B2010, 4 pp.
9. Salvo, J., J.R. Fleming, and **J.R. Vogel**, 2018. POND: Composting, OWS-B2011, 4 pp.
10. Fleming, J.R. and J.R. Vogel, 2018. Oklahoma Water Survey – Providing MORE for Oklahoma’s Water Community, OWS-P1000, 2 pp.
11. McLemore, A.J., **J.R. Vogel**, and S. Tahgvaieian. 2017. Bioretention Cell Design Guidance for Oklahoma, 8pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-10743/BAE-1536web.pdf>
12. Ruiz, N., **J.R. Vogel**, and S. Taghvaeian. 2017. Minimizing Stormwater Runoff by Disconnecting Residential Downspouts, 4pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-10710/BAE-1534web.pdf>
13. Hillock, D., **J.R. Vogel**, and A.K. Jarman. 2016. Chapter 6, Part 1: Landscape Design. Oklahoma Master Gardener manual, 20 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-10312/E-1034.pdf>
14. Fleming, J.R., **J.R. Vogel**, and A.J. McLemore. 2014. Natural Stream Restoration and Enhancement. BAE-1526, 8 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-9223/BAE-1526web.pdf>
15. Gotcher, M.J., J.M. Schroeder, C.L. Keck, S.J. Snyder, D. Hillock, K.A. Jarman, **J.R. Vogel**, M. Schnelle, D.L. Martin, and J.Q. Moss. 2013. A Guide to Saving Water in the Home Landscape. City of Oklahoma City bulletin, in cooperation with the Oklahoma Cooperative Extension Service, E-1038, 26 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-9229/E-1038web.pdf>
16. **Vogel, J.R.**, A.R. Stringer, and M.D. Beem, 2011. Understanding Stormwater and Low Impact Development (LID). BAE-1758, 4 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-8240/BAE-1758web.pdf>
17. Stringer, A. R., **J.R. Vogel**, J.J. Lay, and K. Nash, 2011. Design of Rainwater Harvesting Systems in Oklahoma. BAE-1757, 4 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-8238/BAE-1757web.pdf>
18. Moss, J.Q., J.E. Haase, D.L. Haase, **J.R. Vogel**, and T.A. Boyer, 2011. Simple Irrigation Audit for Home Lawns in Oklahoma. HLA-6610. 7 pp. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-7896/HLA-6610web.pdf>
19. **Vogel, J.R.**, S. Lovern, K. Toscano, and D., 2011. The Cow Creek Stream Corridor Restoration Project. Oklahoma Botanical Gardens Handout Flyer. 2 pp.

Websites

1. Organized, manage, and maintain “Great Plains Low Impact Development” website (GreatPlainsLID.org), which has had 951 visits and 3,372 page views from users in 47 countries, 35 states, and 19 Oklahoma communities since February 26, 2018. (as of December 31, 2018)

2. Organize and manage the Oklahoma Water Survey website (OKH2O.org), which has had 2,875 visits with 18,485 page views since November 14, 2017. (as of December 31, 2018) [OU analytics does not allow us to get the geographic information for this page]
3. Organized, manage, and maintain the OSU web site “Oklahoma Low Impact Development” (lid.okstate.edu) which has had over 44,116 visits and 106,544 page views from users in 164 countries, all 50 states plus the District of Columbia, and 159 Oklahoma communities since March 8, 2010. (as of December 31, 2018)
4. Organized, manage, and maintain the OSU web site “Green Country Low Impact Development Competition” (lidcompetition.okstate.edu) which has had over 14,242 visits and 28,151 page views from users in 118 countries, all 50 states plus the District of Columbia, and 74 Oklahoma communities since October 2, 2013. (as of December 31, 2018)
5. Organized, manage, and maintain “Oklahoma Stormwater” Twitter® feed (@JasonVogel1), which has 811 followers and has had 359,189 tweet views (impressions) since July 9, 2014. (as of February 6, 2020)
6. Organized, manage, and maintain “OKH2O” Twitter® feed (@OKH2O), which has 231 followers and has had 467,469 tweet views (impressions) since November 1, 2017. (as of February 6, 2020)

Archived television segments

1. “SUNUP” segment on “Eastern Oklahoma Floods: Five Feet High and Rising”, available at this link: <https://www.youtube.com/watch?v=xkEpeB5Qkps> (as of February 6, 2020: 132 views since February 8, 2016)
2. “Oklahoma Gardening” segment on “Large Scale Rainwater Harvesting”, available on the web at this link: <https://www.youtube.com/watch?v=1t5uL7BzCJY> (as of February 6, 2020: 15,658 views since November 9, 2015)
3. “Oklahoma Gardening” segment on “Bioretention and Rain Garden Demonstration Project”, available on the web at this link: <https://www.youtube.com/watch?v=7lM6d1LfX9E> (as of February 6, 2020: 10,811 views since November 9, 2015)
4. “Oklahoma Gardening” segment on “Rainwater Sand Cistern Update”, available on the web at this link: https://www.youtube.com/watch?v=Bzdo_xCLKTY (as of February 6, 2020: 1,858 views since July 8, 2015)
5. “Oklahoma Gardening” segment on “Benefits of Wetlands”, available on the web at this link: <http://www.youtube.com/watch?v=K6jBAeT-PdU> (as of February 6, 2020: 39,462 views since December 12, 2012)
6. “Oklahoma Gardening” segment on “Green Roofs in Oklahoma”, available on the web at this link: <http://www.youtube.com/watch?v=rzIBYWs09-c> (as of February 6, 2020: 616 views since October 23, 2012)
7. “Oklahoma Gardening” segment on “Pervious Concrete”, available on the web at this link: <http://www.youtube.com/watch?v=56ne6SLYyUs> (as of December 31, 2018: February 6, 2020: 46,018 views since August 25, 2010)
8. “Oklahoma Gardening” 2-part segment on “Constructing a Rain Barrel”, available on the web at these links: Part I: <http://www.youtube.com/watch?v=FeRO2MnH79M> (as of February 6, 2020: 1,606 views since July 7, 2010) Part II:

- <http://www.youtube.com/watch?v=u7joBFwn338> (as of February 6, 2020: 698 views since July 7, 2010)
9. “Oklahoma Horizon TV” segment on “Contaminated Water in Your Neighborhood” to discuss low impact development practices during their show on Urban Runoff, available on the web at this link: <https://www.youtube.com/watch?v=fwJofdp0zmU> (as of February 6, 2020: 169 views since June 4, 2010)

Videos

1. **Vogel, J.R.**, C. Woods, K. Conry, G. Levesque, G. Jennings, E. Brantley, and J. Fleming. 2014. “Natural Stream Restoration—Restoring Streams”. Available online at <https://www.youtube.com/watch?v=h-0NIG508FA> (as of February 6, 2020: 188 views since November 22, 2019) *[hosted with Greek subtitles by official in Greece]*
2. **Vogel, J.R.**, and C. Woods. 2015. “Water Quality”. Available online at <https://www.youtube.com/watch?v=1rNOTfLdnbc> (as of February 6, 2020: 78 views since July 21, 2015)
3. **Vogel, J.R.**, and C. Woods. 2014. “Low Imp**Vogel, J.R.**, and C. Woods. 2014. “Low Impact Development in the Tulsa Area”. Available online at https://www.youtube.com/watch?v=n_4R4gpXAFI (as of February 6, 2020: 150 views since July 13, 2015)
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Newsletter and Media Contacts

1. OKH2O News, Summer 2019. Co-author of biannual newsletter. 16 pp.
2. KOSU radio interview on the Oklahoma Water Survey, Fall 2018.
3. OKH2O News, Fall 2018. Co-author of biannual newsletter. 16 pp.
4. OKH2O News, Spring 2018. Co-author of biannual newsletter. 16 pp.
5. OU Engineer, Winter 2018. Vogel Selected as Director of Oklahoma Water Survey.
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8. Daily Oklahoman, September 16, 2017. OU official: Conference addresses concerns related to water. Available online at <http://newsok.com/ou-official-conference-addresses-concerns-related-to-water/article/5564291>
9. The Journal Record, June 14, 2017. Vogel to Head Oklahoma Water Survey. Preview available online at <http://journalrecord.com/2017/06/14/vogel-to-head-oklahoma-water-survey/>
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12. Tribal Transportation Times, Fall 2015 Newsletter, Erosion Control training offers hands-on activities for participants. p. 11, available online at <https://ttap.okstate.edu/sites/default/files/Fall%202015%20News.pdf>
13. Downstream, Storm Water Quality Management Fourth Quarter Newsletter. 2015. Construction Workshop. p. 3, available online at http://www.okc.gov/pw/SWQ/StormWaterNewsletters/DownStream-SWQ_Newsletter_4th_qtrr_2015.pdf
14. Tribal Transportation Times, Summer 2015 Newsletter, Southern Plains TTAP and OCC sponsor Illinois River Stream Restoration Field Tour for 3rd year. p. 16, available online at <https://ttap.okstate.edu/sites/default/files/Summer%202015%20News.pdf>
15. Home Building News. 2014. Winners Announced for Low Impact Development (LID) Competition. p.20, available online at http://issuu.com/tulsahba/docs/home_building_news_may_2014
16. The Journal Record. 2014. Natural Defenses: Homebuilders try to clean water before it reaches Lake Thunderbird. Available online at: <http://journalrecord.com/2014/07/17/natural-defenses-home-builders-try-to-clean-water-before-it-reaches-lake-thunderbird-general-news/>

17. **Vogel, J.R.** 2013. Rainwater Harvesting 101. Aquahoman, Volume IX, Issue I. September 2013.
18. KSWO.com. 2013. Water Awareness Month. News story mentioning my extension rainwater harvesting presentation in Lawton. Available online at: <http://www.swoknews.com/news-top/local/item/6518-simple-systems-may-be-big-help-in-drought><http://www.kswo.com/story/23294133/water-awareness-month>
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20. PInsider Newsletter. 2013. Capture Rainwater to Help Conserve Water. Newsletter mentioning and referencing my extension rainwater harvesting workshop in Lawton and the lid.okstate.edu web site. Available online at: http://www.parksjonesrealty.com/shared/fs/0321/company/John_Jones_MAY_13_return_address.pdf
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23. NewsOK.com. 2012. Learn how to be a rain farmer. Blog about my rainwater harvesting presentation in Oklahoma City on July 26, 2012. Available online at: <http://newsok.com/learn-how-to-be-a-rain-farmer/article/3762101>
24. Tahlequah Daily Press. 2012. Shoring Up Support. Article about stream restoration in the Illinois River basin. Available online at: <http://tahlequahdailypress.com/local/x941531019/Shoring-up-support>
25. Tahlequah Daily Press. 2012. Project to stave off erosion in parks. Article describing the stream restoration projects that we completed in the Illinois River basin. Available online at: <http://tahlequahdailypress.com/local/x318744797/Project-to-stave-off-erosion-in-parks>
26. Muskogee Phoenix. 2012. Banking on streams. Article about stream restoration projects in the Illinois River. Available online at: <http://muskogee phoenix.com/local/x916001478/Banking-on-streams>
27. Sustainable Shawnee. 2012. Online blog mentioning rainwater harvesting workshop in Oklahoma City. Available online at: <http://shawneesustainability.blogspot.com/2012/07/rainwater-harvesting-class-free-in-okc.html>
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<http://bioen.okstate.edu/Newsletters/BAEExtensionWinter2012.pdf>
32. **Vogel, J.R.**, 2011. Low impact development for stormwater management and control in Oklahoma. *Engineering Success* newsletter. Biosystems and Agricultural Engineering, Oklahoma State University: 1(3):2-3. Available online at:
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<http://biosystems.okstate.edu/news/NewsLetters/BAEExtensionNewsletterSummer2011.pdf>
35. Weatherford Daily News. 2011. "Stormwater workshop discusses community flooding problems Weatherford Daily News, March 26, 2011, p. 1,7A. available online at:
http://lid.okstate.edu/uploaded_files/Vogel%20WDN%20Article%20032611.pdf
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<http://woodwardnews.net/local/x1507928497/Farm-tour-set-in-area/>

Best Management Practice (BMP) Demonstrations Designed, Implemented, and/or Monitored
(51 total: 19 bioretention cells, 4 constructed wetlands, 1 greenroof, 12 natural stream restoration sites, 2 pervious concrete sites, 3 pervious paver sites, and 10 rainwater harvesting sites)

BMP	Location	Partners
1. Bioretention Cell	Cherokee Queen, Grove, Oklahoma	US EPA, Oklahoma Conservation Commission (OCC)
2. Bioretention Cell	Clark Residence, Grove, Oklahoma	US EPA, OCC
3. Bioretention Cell	Grove High School, Grove, Oklahoma	US EPA, OCC
4. Bioretention Cell	Early Childhood Development Center	US EPA, OCC
5. Bioretention Cell	Deerfield Estates #1, Oklahoma City, Oklahoma	US EPA, OCC, City of Oklahoma City
6. Bioretention Cell	Deerfield Estates #2, Oklahoma City, Oklahoma	US EPA, OCC, City of Oklahoma City
7. Bioretention Cell	Deerfield Estates #3, Oklahoma City, Oklahoma	US EPA, OCC, City of Oklahoma City
8. Bioretention Cell	Deerfield Estates #4, Oklahoma City, Oklahoma	US EPA, OCC, City of Oklahoma City
9. Bioretention Cell	Deerfield Estates #5, Oklahoma City, Oklahoma	US EPA, OCC, City of Oklahoma City
10. Bioretention Cell	Elm Creek Plaza, Grove, Oklahoma	US EPA, OCC
11. Bioretention Cell	Grand Lake Association, Grove, Oklahoma	US EPA, OCC
12. Bioretention Cell	Lendenwood Gardens, Grove, Oklahoma	US EPA, OCC
13. Bioretention Cell	Grand River Dam Authority Ecology Center #1, Langley, Oklahoma	GRDA, US EPA, OCC, Oklahoma Water Resources Board (OWRB)
14. Bioretention Cell	Grand River Dam Authority Ecology Center #2, Langley, Oklahoma	GRDA, US EPA, OCC, Oklahoma Water Resources Board (OWRB)
15. Bioretention Cell	Lighthouse Police Station, Okmulgee, Oklahoma	Muscogee-Creek Nation
16. Bioretention Cell	GRDA Parking Lot, Langley, Oklahoma	GRDA, US EPA, OCC, OWRB
17. Bioretention Cell	Oklahoma Botanical Garden #1, Stillwater, Oklahoma	US EPA, OCC
18. Bioretention Cell	Oklahoma Botanical Garden #2, Stillwater, Oklahoma	US EPA, OCC
19. Bioretention Cell	Spicer Residence, Grove, Oklahoma	US EPA, OCC
20. Constructed Wetland	Berry Family Farms Nursery, Hulbert, Oklahoma	USDA
21. Constructed Wetland	Cedar Valley Nursery, Ada, Oklahoma	Cedar Valley Nursery, ODAFF
22. Constructed Wetland	Oklahoma Botanical Garden, Stillwater, Oklahoma	US EPA, OCC, OWRB
23. Constructed Wetland	Precure Nursery, Oklahoma City, Oklahoma	USDA
24. Greenroof	National Weather Center, Norman, Oklahoma	US EPA, OCC, OWRB
25. Natural Stream Restoration	Baron Fork Creek, Private Property, Eldon, Oklahoma	US EPA, OCC, OWRB

Management Practice (BMP) Demonstrations Designed, Implemented, and/or Monitored (cont.)

BMP	Location	Partners
26. Natural Stream Restoration	Illinois River, Illinois River Ranch, Chewey, Oklahoma	US EPA, OCC, OWRB
27. Natural Stream Restoration	Cow Creek, Oklahoma Botanical Garden, Stillwater, Oklahoma	US EPA, OCC, OWRB
28. Natural Stream Restoration	Illinois River, Peavine Public Access, Tahlequah, Oklahoma	US EPA, OCC, OWRB, Oklahoma Scenic Rivers Commission
29. Natural Stream Restoration	Illinois River, Todd Public Access, Tahlequah, Oklahoma	US EPA, OCC, OWRB, Oklahoma Scenic Rivers Commission
30. Natural Stream Restoration	Illinois River, War Acres Landing, Tahlequah, Oklahoma	US EPA, OCC, OWRB
31. Natural Stream Restoration	Town Branch Creek, Felts Park, Tahlequah, Oklahoma	US EPA, OCC, OWRB, City of Tahlequah
32. Natural Stream Restoration	Town Branch Creek, Head of History Trail Park, Tahlequah, Oklahoma	US EPA, OCC, OWRB, City of Tahlequah
33. Natural Stream Restoration	Town Branch Creek, Sequoyah Park, Tahlequah, Oklahoma	US EPA, OCC, OWRB, City of Tahlequah
34. Natural Stream Restoration	Tributary to Town Branch Creek, Kaufman Park, Tahlequah, Oklahoma	US EPA, OCC, OWRB, City of Tahlequah
35. Natural Stream Restoration	Tributary to Town Branch Creek, Private Property, Tahlequah, Oklahoma	US EPA, OCC, OWRB
36. Natural Stream Restoration	Tyner Creek, Private Property, Proctor, Oklahoma	US EPA, OCC, OWRB
37. Pervious Concrete	City of Tulsa West Maintenance Yard, Tulsa, Oklahoma	City of Tulsa, Portland Cement Association, National Ready-mix Concrete Association, Five (5) Concrete Companies
38. Pervious Concrete	GRDA Parking lot, Langley Oklahoma	GRDA, US EPA, OCC, OWRB
39. Pervious Pavers	Grand River Dam Authority (GRDA) Ecology Center, Langley, Oklahoma	GRDA, US EPA, OCC, Oklahoma Water Resources Board (OWRB)
40. Pervious Pavers	Lake McMurry Disc Golf Course, Stillwater, Oklahoma	US EPA, OCC, OWRB, Friends of Lake McMurry
41. Pervious Pavers	Oklahoma Botanical Garden, Stillwater, Oklahoma	Pavestone
42. Rainwater Harvesting	Rainwater Sand Cistern, Oklahoma Botanical Garden, Stillwater, Oklahoma	OSU
43. Rainwater Harvesting	250 gallon above-ground system, Private Property, Lawton, Oklahoma	City of Lawton
44. Rainwater Harvesting	250 gallon above-ground system, Private Property, Sapulpa, Oklahoma	City of Sapulpa
45. Rainwater Harvesting	1,500 gallon above-ground cistern, City of Lawton Maintenance Facility, Lawton, Oklahoma	City of Lawton, Elite Tanks
46. Rainwater Harvesting	2,800 gallon partially buried cisterns, Private Property, Woodward, Oklahoma	USDA

***Management Practice (BMP) Demonstrations Designed, Implemented, and/or Monitored
(continued)***

BMP	Location	Partners
47. Rainwater Harvesting	3,000 gallon above-ground cisterns, Duncan Community Garden, Duncan, Oklahoma	Ability First
48. Rainwater Harvesting	14,400 gallon underground cisterns, Private Property, Waukomis, Oklahoma	Property owner
49. Rainwater Harvesting	5,000 gallon underground cisterns, Private Property, Lamont, Oklahoma	Property owner
50. Rainwater Harvesting	3,100 gallon above-ground cisterns, Private Property, Pauls Valley, Oklahoma	Property owner
51. Rainwater Harvesting	1,550 gallon above-ground cistern, St. Charles Borromeo School, Warr Acres, Oklahoma	ODEQ

Academic Service—University Organization Activities

OU Water Technologies for Emerging Regions (WaTER) Center

- Associate Director (2019-current)
 - Organized a joint Oklahoma/Emerging Regions session at the 2017 and 2019 conferences

OU Hydrology and Water Security Program Steering Committee Member (2018-present)

University Council of Water Resources (UCOWR)

- OU delegate (2018-present)

OU Earth Month Advisory Committee (2017-2018)

OSU Faculty Council

- DASNR Representative (2015-2017)
- Long Range Planning and Information Technology Committee Chair (2016-2017)
- Academic Standards and Programming Committee Member (2016-2017)
- Long Range Planning and Information Technology Committee Member (2015-2016)

OSU CEAT Faculty Advisory Council

- BAE Representative (2015-2016)

U.S. Green Building Council OSU Student Chapter

- Founding co-advisor (2014-2016)

ASABE Oklahoma Section Student Club

- Senior Advisor (2011-12)
 - Group was Winner of AEM award (Outstanding National ASABE student branch)
- Junior Advisor (2010-11)
 - Chosen DASNR Club of the year
 - Group tied for second for AEM award (Outstanding National ASABE student branch)

University Council of Water Resources (UCOWR)

- OSU delegate (2010-2017)

Jason R. Vogel, Ph.D, P.E.

jason.vogel@ou.edu, (405) 325-2826

OSU Creativity Initiative

- Invited steering committee board committee member (2010-2012)

Mortar Board National Honor Society (1997-2009)

- Senior Advisor, Black Masque Chapter, University of Nebraska-Lincoln (2002-09)
 - National Advisor of the Year (2007)
 - Black Masque Chapter chosen National Chapter of the Year from 220 universities across the nation (2007)
- National Council Alumni Representative (2001-03)
- Senior Advisor, Achafoa Chapter, Oklahoma State University (1998-2002)
- National Technology Committee Chairman (1999-2001)
- National Advisor Committee Founder and Chairman (1999)
- Junior Advisor, Achafoa Chapter, Oklahoma State University (1997-98)

Academic Service—Entrepreneurial Activities:

1. OU Invention Disclosure No. 2019-004: Method and Apparatus for Testing Leaching from Compost Filter Socks.
2. **Vogel, Jason Robert**, Daniel Eugene Storm, Billy J. Barfield, Wayne Ray Kiner, Karl Michael Garbrecht. Patent Number US9868648B2: Passive Chemical Dosing and Mixing Apparatus and Method. <https://patents.google.com/patent/US9868648B2/en> Granted January 16, 2018.
3. OSU Invention Form 2011.34: Precast Pervious Paver Blocks. *decision: OSU not pursuing a patent, but pursued marketing plan in the OSU Marketing Plan Competition for non-patented product*
4. OSU Invention Form 2011.35: Passive Flocculant Dosing and Mixing Apparatus for Sediment Control at Construction Sites. *decision: patent obtained, patent and licensing options were pursued, and ultimately the invention rights were returned to the inventors from OSU.*
5. OSU Invention Form 2012.27: Lightweight Green Roof Media. *OSU Office of Technology Business Development retaining rights to pursue patent; 2 separate CIE Scholars groups developed a marketing plan for this invention; Wentz project completed to assess growability.*

Academic Service—Other Activities:

1. Invited Member, OKR04 Stakeholder Advisory Group, 2019-present
2. Appointed member, Oklahoma Direct Potable Reuse Workgroup, 2018-present
3. Appointed member, Oklahoma Brackish Water Workgroup, 2018-present
4. Appointed member, Oklahoma Governors Produced Water Task Force, 2017-present
5. Appointed member, Oklahoma Indirect Potable Reuse Workgroup, 2017-present
6. Oklahoma Geological Survey Director Search Committee, 2019
7. OU Vice President for Research Awards Selection Committee, 2018
8. Technical Reviewer, NOAA Environmental Justice Awards, 2018
9. OU Produced Water Research Portfolio Coordinator, 2017-2019
10. Member of OSU BAE RPT Committee, 2016-2017.
11. Member of OSU university-wide committee to choose honorary doctorates, November 2016.
12. Interim OSU BAE Graduate Committee Coordinator, July-December 2016
13. Judging coordinator for the 2016 ASABE Blue Ribbon Award for Electronic Delivery, January 2016.
14. Judge of the OSU BAE 1012 Freshman Design Posters, December 2015.
15. Judge of the NRES Student Poster Competition at the 2015 ASABE International Conference.

16. Invited selection committee member for new director of the Southern Plains Tribal Technical Assistance Program, July 2015.
17. Invited organizer of the AEES Student Design Competition in June 2015.
18. Provided feedback for the Senior Engineering Practice class that is required for ABET accreditation. May and December 2015.
19. Judge for Poster competition at the OSU Student Water Conference. April 2015.
20. OSU Selection Committee Chair for Assistant Professor and Extension Specialist in Water Resources, position hired May 2015.
21. Invited co-organizer and judge of Student Poster Competition at EPA Region 6 MS4 Stormwater Conference in Fort Worth, Texas, on July 31, 2014.
22. Co-organizer of Student Poster Competition at Great Plains LID Research and Innovation Symposium in Catoosa, Oklahoma, on April 3, 2014.
23. OSU Selection Committee Chair for Assistant Extension Specialist in Water Resources, position hired in October 2013.
24. Judging coordinator for the 2013 ASABE Blue Ribbon Award for Web Sites, January 2013.
25. Invited judge for the ASABE Gunlogson Environmental Design Student competition, Dallas, Texas, July 2012.
26. Invited contributor towards development of Green Entrepreneurship class in OSU Spears School of Business, November 2011.
27. Invited technical advisor for the Oklahoma Department of Central Services for a design-bid for stream restoration projects in northeastern Oklahoma, November-December 2011.
28. Invited contributor towards development of an Ecology class lab at OSU that incorporated low impact development into the class, November 2011.
29. Invited author of the OSU Provost's Vision Committee's forthcoming spire titled "Sustainable Solutions for Oklahoma Water Resources Issues," October 2011.
30. Invited judge for ASABE Student Poster Competition, Louisville, Kentucky, August 2011.
31. Invited host for high school summer internship for Ms. Katie Morris of the Graystone Day School in Misenheimer, North Carolina, July 8-29, 2011.
32. Invited committee member on the OSU Creativity Initiative steering committee
33. Selected as an OSU Riata Entrepreneurship Faculty Fellow, 2010-2014.
34. Invited member of the University of Oklahoma green roof research team, conducting the water portion of the research on their experimental green roof atop the National Weather Center in Norman, Oklahoma. Ongoing.
35. Reviewed and approved QAPP for habitat and fish monitoring at the Cow Creek stream restoration reach. Summer 2010.
36. Invited speaker at the Annual OSU Riata Fellow Research Symposium, February 25, 2011.
37. Invited consultant to discuss potential green roof on new OSU College of Human Sciences building with architects, June 2010.
38. Designed and helped develop the planting design for the riparian wetland to be installed as part of the Cow Creek Stream Restoration project, April-May 2010.
39. Member of team developing an experiment for the 4-H National Experiment. Activity entitled "Awesome Erosion" was submitted but not selected as the national activity. February 2010.

Research

Refereed Publications

(42 total: 32 refereed journal articles, 5 refereed book chapters, 5 refereed USGS reports; 2 refereed journal articles in review)

Jason R. Vogel, Ph.D, P.E.

jason.vogel@ou.edu, (405) 325-2826

Published:

Refereed Journal Articles:

1. McMaine, J.T., **J.R. Vogel**, J.B. Belden, M.A. Schnelle, S.A. Morrison, and G.O. Brown. 2019. Field Studies of Pollutant Removal From Nursery and Greenhouse Runoff by Constructed Wetlands. *Journal of Environmental Quality*. Accepted, online 12/26/2019
2. Rodak, C.M., T.L. Moore, R. David, A.D. Jayakaran, and **J.R. Vogel**. 2019. Urban Stormwater Characterization, Control, and Treatment: 2018 Year in Review. *Water Environment Research*, 91:1034-1060. (*invited review*)
3. Bigham, K., T.L. Moore, **J.R. Vogel**, and T. Keane. 2018. Repeatability, Sensitivity, and Uncertainty Analysis of the BANCs Model Developed to Predict Annual Streambank Erosion Rates. *Journal of the American Water Resources Association*. 54(2): 423– 439.
4. Moore, T.L, C.M. Rodak, Ahmed, F., and **J.R. Vogel**. Urban Stormwater Characterization, Control, and Treatment: 2017 Year in Review. *Water Environment Research*, 90(10):1821-1871. (*invited review*)
5. Kandel, S., **J.R. Vogel**, C. Penn, and G.O. Brown. 2017. Phosphorus Retention by Fly Ash Amended Filter Media in Aged Bioretention Cells. *Water*, 9(10):746.
6. Moore, T.L, C.M. Rodak, and **J.R. Vogel**. 2017. Urban Stormwater Characterization, Control, and Treatment: 2016 Year in Review. *Water Environment Research*, 88(10):1918-1950. (*invited review*)
7. Youngblood, S., **J.R. Vogel**, G.O. Brown, D.E. Storm, A.J. McLemore, and S. Kandel. 2017. Field Studies of Microbial Removal from Stormwater by Bioretention Cells with Fly-Ash Amendment. *Water*, 9(7):526.
8. **Vogel, J.R.**, and T.L. Moore. 2016. Urban Stormwater Characterization, Control, and Treatment: 2015 Year in Review. *Water Environment Research*, 88(10):1918-1950. (*invited review*)
9. Coffman, R.R., D. Graves, **J.R. Vogel**, and G.O. Brown. 2015. Vegetation in Dryland Bioretention Systems. *Landscape Research Record*, 4:58-71.
10. Neupane, S., **J.R. Vogel**, D.E. Storm, B.J. Barfield, A.R. Mittelstet. 2015. Development of a Turbidity Prediction Methodology for Runoff–Erosion Models. *Water, Air, and Soil Pollution*, 226:415-428.
11. **Vogel, J.R.**, T.L. Moore, R.R. Coffman, S.N. Rodie, S.L. Hutchinson, K.R. McDonough, A.J. McLemore, and J.T. McMaine. 2015. Critical Review of Technical Questions Facing Low Impact Development and Green Infrastructure: A Perspective from the Great Plains. *Water Environment Research*, 87(9):849-862. (*invited critical review*)
12. Graves, G.M., **J.R. Vogel**, J.B. Belden, and E.J. Rebek. 2014. Investigation of Insecticide Leaching from Potted Nursery Stock and Aquatic Health Benefits of Bioretention Cells Receiving Nursery Runoff. *Environmental Science and Pollution Research*, 22:8801-8811.
13. Lu, Jingrang, Hodon Ryu, **J.R. Vogel**, J.W. Santo Domingo, and Nicholas Ashbolt. 2013. Molecular Detection of Campylobacter and Fecal Indicators during the Northern Migration of Sandhill Cranes (*Grus canadensis*) at the Central Platte River. *Applied and Environmental Microbiology*, 79(12):3762-9.

14. Moss, J.Q., J.E. Haase, **J.R. Vogel**, T.A. Boyer, and D.L. Martin. 2013. Simple lawn irrigation measurement training for Master Gardeners and homeowners. *Journal of Extension*, 51(3) Article 3RIB7.
15. **Vogel, J.R.**, Jingrang Lu, Dale Griffin, Hon Ip, M.T. Moser, Hodon Ryu, Nicholas Ashbolt, and J.W. Santo Domingo. 2013. Impacts of Migratory Sandhill Cranes (*Grus canadensis*) on Microbial Water Quality in the Central Platte River, Nebraska, USA. *Water, Air, and Soil Pollution*, 226(6):1576.
16. Gilley, J.E., **J.R. Vogel**, R.A. Eigenberg, D.B. Marx, and B.L. Woodbury, 2012. Nutrient losses in runoff from feedlot surfaces as affected by unconsolidated surface materials. *Journal of Soil and Water Conservation*, 67(3):211-217.
17. Ryu, Hodon, Jingrang Lu, **J.R. Vogel**, Michael Elk, Felipe Chavez-Ramirez, Nicholas Ashbolt, and J.W. Santo Domingo, 2012. Development and Evaluation of a Quantitative PCR Assay Targeting Sandhill Crane (*Grus canadensis*) Fecal Pollution. *Applied and Environmental Microbiology*, 78(12):4338-4345.
18. Gilley, J.E., **J.R. Vogel**, R.A. Eigenberg, D.B. Marx, and B.L. Woodbury. 2011. Runoff, Erosion, and Size Distribution of Sediment from Beef Cattle Feedlots. *Transactions of the ASABE*, 54(2):435-440.
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20. **Vogel, J.R.**, and J.I. Linard, 2011. Agricultural Herbicide Transport in a First-Order Intermittent Stream, Nebraska, USA. *Applied Engineering in Agriculture*, 27(1):63-74.
21. Gilley, J.E., **J.R. Vogel**, R.A. Eigenberg, D.B. Marx, and B.L. Woodbury, 2010. Nutrient Transport in Runoff from Feedlots as Affected by Wet Distiller's Grain Diet. *Transactions of the ASABE*, 53(2):545-552.
22. Gilley, J.E., **J.R. Vogel**, E.D. Berry, R.A. Eigenberg, D.B. Marx, B.L. Woodbury, 2009. Nutrient and Bacterial Transport in Runoff from Soil and Pond Ash Amended Feedlot Surfaces. *Transactions of the ASABE*, 52(6):2077-2085.
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24. Hancock, T.C., M.W. Sandstrom, **J.R. Vogel**, R.M.T. Webb, E.R. Bayless, and J.E. Barbash, 2008. Transport and Fate of Pesticides in the Unsaturated Zone within Five Agricultural Settings of the United States. *Journal of Environmental Quality*, 37: 1086-1100.
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26. **Vogel, J.R.**, M.S. Majewski, and P.D. Capel, 2008. Pesticides in Rain in Four Agricultural Watersheds in the United States, *Journal of Environmental Quality*, 37: 1101-1115.
27. Lamendella, Regina, J.W. Santo Domingo, D.B. Oerther, **J.R. Vogel**, and D.M. Stoeckel, 2007. Assessment of fecal pollution sources in a small northern-plains watershed using PCR and phylogenetic analyses of Bacteroidetes 16S rRNA gene, *FEMS Microbiology Ecology*, 59:651-660
28. **Vogel, J.R.**, D.M. Stoeckel, R.A. Lamendella, R.B. Zelt, J.W. Santo Domingo, S.R. Walker, and D.B. Oerther. 2007. Identifying Fecal Sources in a Selected Catchment Reach Using

- Multiple Source-Tracking Tools. *Journal of Environmental Quality*, 36(3): 718-729, plus 4 p. online supplemental
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 30. **Vogel, J.R.**, J. Garbrecht, and G.O. Brown, 2001. Field Scale Variability of Selected Soil Properties in Dryland Winter Wheat and Native Warm Season Grass Watersheds. *Applied Engineering in Agriculture*, 17(5):611-623.
 31. **Vogel, J. R.**, 2001. A Simplified Method for Estimating Lake Evaporation for Long-Term Water Balance Models. *Transactions of the ASAE*, 44(4):917-919.
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Refereed Book Chapters:

33. **Vogel, J.R.**, and G.O. Brown, 2013. Characterization of Porous Media Computer Tomography Images Using Semivariogram Families. *Tomography and Imaging of Soil-Water-Root Processes: Advances in Tomography and Imaging*, SSSA Special Publication 61, S.H. Anderson and J.W. Hopman, editors. Soil Science Society of America, Madison, WI, p. 205-221.
34. Brown, G.O., and **J.R. Vogel**, 2013. Heterogeneous Porous Media Structure Analysis with Computerized Tomography Images and a Multi-phase Bin Semivariogram. *Tomography and Imaging of Soil-Water-Root Processes: Advances in Tomography and Imaging*, SSSA Special Publication 61, S.H. Anderson and J.W. Hopman, editors. Soil Science Society of America, Madison, WI, p. 205-221.
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36. **Vogel, J.R.**, and G.O. Brown, 2003. Geostatistics and the representative elementary volume of gamma ray tomography attenuation in rock cores, in F. Mees, R. Swennen, M. Van Geet, and P. Jacobs (eds), *Applications of X-ray Computed Tomography in Geosciences*. Geological Soc., London, Special Publications, 215, p. 81-93.
37. **Vogel, J.R.** and C.T. Haan, 2002. Chapter 17. Geostatistics, in C.T. Haan, *Statistical Methods in Hydrology*, Second edition, Iowa State Press, Ames, Iowa, p. 425-449.

Refereed USGS Publications:

38. **Vogel, J.R.**, J.D. Frankforter, D.L. Rus, C.M. Hobza, and M.T. Moser, 2009. Water Quality of Combined Sewer Overflows, Stormwater, and Streams, Omaha, Nebraska, 2006-2007. U.S. Geological Survey Scientific Investigations Report 2009-5175, 152 p.
39. Stanton, J.S., G.V. Steele, and **J.R. Vogel**, 2007. Occurrence of Agricultural Chemicals in Shallow Ground Water and the Unsaturated Zone, Northeast Nebraska Glacial Till, 2002-04. USGS Scientific Investigations Report 2007-5228, 56 p.

40. **Vogel, J.R.**, Stephanie Harris, T.B. Coplen, E.W. Rice, and I.M. Verstraeten, 2005. Microbe Concentrations, Laser Particle Counts, and Stable Hydrogen and Oxygen Ratios in a Riverbank Filtration Investigation, Platte River, Nebraska, 2002-2004. U.S. Geological Survey Data Series 133.
41. **Vogel, J.R.**, I.M. Verstraeten, T.B. Coplen, E.T. Furlong, M.T. Meyer, and L.B. Barber, 2005. Occurrence of Selected Pharmaceutical and Non-Pharmaceutical Compounds, and Stable Hydrogen and Oxygen Isotope Ratios, in a Riverbank Filtration Study, Platte River, Nebraska, 2001-2003, Volume 1. U.S. Geological Survey Data Series 117.
42. **Vogel, J.R.**, L.B. Barber, E.T. Furlong, T.B. Coplen, I.M. Verstraeten, and M.T. Meyer, 2005. Occurrence of Selected Pharmaceutical and Non-Pharmaceutical Compounds, and Stable Hydrogen and Oxygen Isotope Ratios, in a Riverbank Filtration Study, Platte River, Nebraska, 2002-2003, Volume 2. U.S. Geological Survey Data Series 141.

In Review:

Refereed Journal Articles:

1. Bhadbhade, N., **J.R. Vogel**, D.E. Storm, and B.J. Barfield. Flume Investigation of Polymer Flocculation Effectiveness in Stormwater Runoff. Submitted to *Journal of Environmental Engineering*.
2. McLemore, A.J., **J.R. Vogel**, and L. Montefiore. Pervious Concrete Long-term Clogging Trends and Evaluation of Cleaning Methods. Submitted to *Journal of Environmental Management*.

In Final Preparation (from completed dissertations, theses, and project final reports):

Refereed Journal Articles:

- Beitz, M.K., D.E. Storm, D.L. Martin, and **J.R. Vogel**. Buffalograss (*Bouteloua Dactyloides*) Stand Persistence in Greenroof Media Under Greenhouse Summer Conditions. To be submitted to *Environmental Science and Pollution Research*.
- Lay, J.J., **J.R. Vogel**, J.B. Belden, G.O. Brown, D E. Storm. Water Quality in Roof-Based Rainwater Harvesting, Part I: Harvested Water Quality & Soil Accumulation Analysis. To be submitted to *Science of the Total Environment*.
- McLemore, A.J., **J.R. Vogel**, and G.O. Brown. Hydraulic Analysis and Pollutant Leaching Potential of Two Established Bioretention Cells Amended with Fly Ash. To be submitted to *Journal of Environmental Engineering*.
- McLemore, A.J., **J.R. Vogel**, and G.O. Brown. Multiple Component Analysis of Aged Pervious Concrete from X-ray Computer Tomography and Relationships to Field Performance. To be submitted to *Cement and Concrete Research*.
- McMaine, J.T., **J.R. Vogel**, G.O. Brown, and A.J. McLemore. A Simple Method for Optimizing Selection of Low Impact Development Practice and Area Treated at the Watershed Scale Based on User-defined Criteria. To be submitted to *Journal of Water Resources Planning and Management*.
- Neupane, S., **J.R. Vogel**, D.E. Storm, and G.A. Fox. Geomorphic characterization of streams with limited historic hydro-geomorphic data. To be submitted to *Environmental Monitoring and Assessment*.

- Vogel, J.R.**, Bhadbhade, N., D.E. Storm, and B.J. Barfield. Modeling of Chemical Flocculation for Sediment Runoff from Construction Sites. To be submitted to *Journal of Environmental Engineering*. (note, need a new title for this one)
- Vogel, J.R.**, Bhadbhade, N., G.O. Brown, D.E. Storm, and G.G. Wilber. Spatial and Temporal Hydrodynamics of a Circular Jar Test: Impacts on Flocculation Estimation. To be submitted to *Journal of Environmental Engineering*.
- Vogel, J.R.**, J.J. Lay, J.B. Belden, G.O. Brown, and D.E. Storm. Water Quality in Roof-Based Rainwater Harvesting, Part II: The First Flush Effect. To be submitted to *Science of the Total Environment*.
- Vogel, J.R.** Melone, M.J., and G.O. Brown. Passive Separation and Removal of Petroleum Hydrocarbons from Runoff Using Wood Mulch. To be submitted to *Applied Engineering in Agriculture*.
- Vogel, J.R.** S. Neupane, G.G. Wilber, D.E. Storm, and R. Jones. Quantifying the Relationship Between Water Color and Dissolved Organic Carbon Based on Sources of Organic Matter. To be submitted to *Water, Air, and Soil Pollution*.
- Vogel, J.R.**, S.E. Youngblood, S.E., D. Griffin, G.O. Brown, and D.E. Storm. Microbial removal in column studies using intact filter-media cores from established bioretention cells. To be submitted to *Water Environment Research*.

Proposals Funded (updated December 31, 2019)

(Total Funded Value: \$9,644,729 [\$7,915,276 as PI, \$1,676,646 as co-PI]; Pending: \$1,239,666 [745,654 as PI, \$494,012 as co-PI])

Pending (in review)

1. **Vogel, J.R.** (PI, 100% credit), RII Track-1: Socially Sustainable Solutions for Water, Carbon, and Infrastructure Resilience in Oklahoma. NSF EPSCoR (subcontract to Huhnke et al., \$20,000,000 proposal through Oklahoma State University). **\$290,654**. 2020-2025.
2. **Vogel, J. R.** (PI, 100% credit) and G.M. Graves, Comparative Analysis of Indicator Bacteria Occurrence in Impaired Oklahoma Streams for FY21, US EPA (subcontract to Oklahoma Department of Environmental Quality). **\$80,000**. 2020-2021.
3. **Vogel, J. R.**, (PI, 100% credit), J.R. Fleming, R. Khakpour, and J. Meshek. Engineering Design Criteria, Standard Specifications, Construction Drawings Update and City Ordinance Review. **\$375,000**. 2020-2022.
4. Mohebbi, S., (PI, 70% credit), and **J.R. Vogel**, (Co-PI, 30% credit), CMMI-EPSRC: C-GUST: Cooperative and non-cooperative Games for Urban Stormwater management, NSF and Engineering and Physical Sciences Research Council (EPSRC) (subcontract to University of Exeter). **\$494,012**. 2020-2022.

Awarded, contract pending

1. **Vogel, J. R.**, (PI, 100% credit) and G.M. Graves, Comparative Analysis of Indicator Bacteria Occurrence in Impaired Oklahoma Streams for FY20, US EPA (subcontract to Oklahoma Department of Environmental Quality). **\$80,000**. 2019-2020.
2. **Vogel, J. R.**, (PI, 50% credit), Grant, G.M., (Co-PI, 0% credit), Tanner, R. S., (Co-PI, 50% credit), Investigation of Indicator Bacteria in Oklahoma Streams, USGS 104b Grant Program (subcontract to Oklahoma State University). **\$25,000**. 2020-2021.

3. **Vogel, J. R.**, (PI, 100% credit), Graves, G., (Co-PI, 0% credit), Yepez, S., (Co-PI, 0% credit), Compost Filter Socks for Storm Water and Erosion Control in Construction, Oklahoma Department of Transportation. **\$179,555**. 2020 - 2021.

Awarded

1. **Vogel, J. R.**, (PI, 80% credit), Yepez, S., (Co-PI, 0% credit), Graves, G., (Co-PI, 0% credit), Ramseyer, C., (Co-PI, 10% credit), Volz, J., (Co-PI, 10% credit), In-Stream Structures: Integrity and Channel Stability Survey and Evaluation, Oklahoma Department of Transportation. **\$183,640**. 2019 - 2021.
2. **Vogel, J. R.**, (PI, 100% credit), City of Anadarko Water Utility Mapping, City of Anadarko, Oklahoma. **\$12,781**. 2019.
3. Townsend, D., **J.R. Vogel** (OU PI, 100% credit), and J.R. Fleming. Guard the Grand: Inspiring an Environmental Stewardship Ethic and Creating Environmental Literacy in the watershed of Grand Lake O' the Cherokees in Oklahoma. US EPA Environmental Education Grant Program (subcontract to Grand River Dam Authority). **\$43,192**. (Vogel subcontract part of \$112,571 grant). 2019-2021.
4. **Vogel, J.R.** (OU PI, 100% credit), K. Senour, S. Goebel, K. Stickley, and L. Roach. Lake Thunderbird Watershed Stormwater Prioritization Proposal. City of Oklahoma City (subcontract to C.H. Guernsey). **\$212,000**. 2019-2020.
5. Nanny, M.A., J. Kelly, R. Ramesh, I. Sellers, and **J.R. Vogel**. MRI: Acquisition of an Inductively Coupled Plasma Mass Spectrometer (ICP-MS) System to Enable Elemental Analysis in Research, Training and Education. NSF-Major Research Instrumentation Program. **\$396,778** (Vogel portion \$50,000). 2018-2021.
6. **Vogel, J.R.** Lake Thunderbird Shoreline Erosion Project. Central Oklahoma Master Conservancy District. **\$219,992**. 2018-2020.
7. **Vogel, J.R.** Low Impact Development Maintenance Manual. Cooperative Agreement with City of Tulsa, **\$47,718**. 2018-19.
8. **Vogel, J.R.** Adapting Socio-ecological Systems to Increased Climate Variability—Public Availability for Hard-to-Find Public Datasets. NSF-EPSCOR, **\$34,272**. 2017-2018.
9. **Vogel, J.R.** Oklahoma Water Survey Start-up. University of Oklahoma. **\$285,000**. 2018-2020.
10. **Vogel, J.R.** Green Infrastructure Research Transition Funding. University of Oklahoma. **\$374,109**. 2018-2020.
11. **Vogel, J.R.** Using Oklahoma-sourced Biochar for Removing Pesticides from Stormwater Runoff. Berry Faculty Fellows Program. **\$20,000**. 2016-2017.
12. **Vogel, J.R.**, and G.O. Brown. Siting, Sizing, and Installation of Flumes to Support Hydrologic Investigations at the Grazinglands Research Laboratory's LTAR Research Site. ARS Agreement 58-3070-6-004. **\$27,600**. 2016-2017.
13. **Vogel, J.R.** Low Impact Development Design Criteria Manual. Cooperative Agreement with City of Tulsa, **\$49,810**, 2016-2017.
14. **Vogel, J.R.** Muscogee-Creek Nation Rain Garden Demonstration Project. Muscogee-Creek Nation, **\$3,000**, 2016.
15. Brown, G. O., **J.R. Vogel**, and D.E. Storm. Rehabilitate the Water Resources and Erosion Watersheds, Amendment to Cooperative Agreement, Integrated Monitoring and Simulation of Hydrologic Components and Systems in Agricultural Landscapes, USDA-ARS Project 56-6218-1-123. **\$16,296**, June 1, 2015 to March 31, 2016.

16. Royer, T., **J.R. Vogel**, J.B. Belden, M. Schnelle, and E. Rebek. E-IPM proposal. USDA Extension Integrated Pest Management Coordination and Support Program **\$35,315**. 2015-2017.
17. **Vogel, J.R.**, and D.E. Storm. Extension Education and Aids for Response and Recovery Related to Water Resources after Tornadoes. USDA NIFA Smith-Lever Special Needs Competitive Grants Program. **\$72,840**. 2014-2018.
18. Fox, G.A., S. Brewer, A. Dzialowski, M. Fishbein, T. Halihan, **J.R. Vogel**, and C. Zou. A Multidisciplinary Investigation of Riparian and Floodplain Processes following Stream and Floodplain Rehabilitation. NSF REU Program. **\$287,748**. 2014-2017.
19. Fox, G.A., T. Boyer, D. Moriasi, L. Sanders, P. Starks, J. Steiner, D. Storm, and **J.R. Vogel**. Implementation of In-Stream, Streambank and Riparian Practices in Conjunction with Upland Practices for Conservation of Water Resources. USDA AFRI. **\$638,000**. 2013-2017.
20. Rebek, E., **J.R. Vogel**, J.B. Belden, and M. Schnelle. Implementing Bioretention Technology in Oklahoma Nurseries to Reduce Insecticide Runoff. USDA Extension Integrated Pest Management Coordination and Support Program. **\$36,189**. 2013-2015.
21. **Vogel, J.R.** Support for Illinois River Stream Restoration Project. Oklahoma Conservation Commission. **\$28,905**. 2012-2013.
22. **Vogel, J.R.**, J.B. Belden, T. Royer, and E. Rebek. Investigation of Insecticide Removal and Aquatic Health Benefits of Bioretention Cells Receiving Nursery Runoff. US EPA Agricultural IPM Grant Program. **\$50,000**. 2012-2014.
23. **Vogel, J.R.**, G.O. Brown, D.E. Storm, R. Coffman, and S. Phillips. Bioretention Cells for Mass Load Reduction of Phosphorus and Sediment in Urban Watersheds in Oklahoma. US EPA 319 Special Funds. **\$811,084**. 2012-2015.
24. **Vogel, J.R.**, S. Ferrell, D. Martin, R. Pillay, D., Storm, J. Warren, H. Yates, M. Holmes, G. Brown, M. Schnelle, G. Peek, J. Sallee, B. Russell, N. Nelson, D. Turton, J. Talkington, K. Toscano, S. Frazier, and D. Redfearn. Epicenter for Environmentally and Economically Sustainable Development—Phase I: Water. Provost's Planning Grants for Establishing Interdisciplinary Programs at Oklahoma State University. **\$25,000**. 2012-2013.
25. **Vogel, J.R.** Construction of a Rainwater Harvesting Cattle Shade System to Encourage Cattle Away from Riparian Areas. Oklahoma Conservation Commission. **\$13,000**. 2012.
26. Collins, Terry, Yang Hong, Teiming Liu, **J.R. Vogel**, Hongo Yu, and Lan Zhu. Decision Support System for Road Closures in Flash Flood Emergencies. Oklahoma Transportation Center Research, Education, and Outreach Support. **\$224,988**. 2012-2013.
27. **Vogel, J.R.**, Hailin Zhang, Arthur Stoecker, Kefyalew Desta, and K. Moore. Innovative composting and rainwater harvesting education for managing production costs and marketing risks associated with sustainable and organic production. Southern Region Risk Management Education Center. **\$48,000**. 2011-2013.
28. **Vogel, J.R.**, D.E. Storm, B.J. Barfield, and Sam Harp. Investigation and Demonstration of Turbidity Reduction in Stormwater Runoff for Oklahoma Highway Construction Sites. Oklahoma Department of Transportation Research Program. **\$185,006**. 2011-2013.
29. **Vogel, J.R.**, D.E. Storm, B.J. Barfield, and Sam Harp. Design of Turbidity Controls for Oklahoma Highway Construction. Oklahoma Transportation Center Research, Education, and Outreach Support. **\$90,189**. 2011-2012.

30. **Vogel, J.R.**, D.E. Storm, G.A. Fox, G.O. Brown, and Tracy Boyer. Stream Channel Restoration in the Illinois River and Eucha/Spavinaw Watersheds to Protect Water Supply Reservoirs. EPA ARRA funding through Oklahoma Conservation Commission. **\$638,308**. 2011-2012.
31. Silatonga, M.R., A.M. Schmidt, Diane Boelstorff, Sam Feagley, **J.R. Vogel**, Glynn Beck, S.O. Dennis, Teferi Tsegaye, U.K. Saha, Keith Fielder, O.S. Mbuya, E.R. Buckner, G.B. Reddy, and Brian Haggard. Prescreening/Qualitative Analysis of Pharmaceuticals in the Southern Region. USDA Southern Region Water Program. **\$1,600**. 2011-2012.
32. Schmidt, Amy, Maifan Silatonga, Diane Boellstorff, Sam Dennis, **J.R. Vogel**, Teferi Tsegaye, Ashley Osborne, Ellen Bauske, Michael Smolen, and Ron Sheffield. Put Pills in Their Place Pharmaceutical Disposal Program. USDA Southern Region Water Program. **\$938**. 2011-2012.
33. Brantley, Eve, Andrea Ludwig, John Buchanan, and **J.R. Vogel**. Watershed Academies for Priority Southern Region River Basins. USDA Southern Region Water Program. **\$7,914**. 2011-2012.
34. Sallee, Jeff, **J.R. Vogel**, G.G. Peek, Jan Burks, A.R. Osborne, and Maifan Silatonga. Youth Teaching and Demonstrating Water Conservation. USDA Southern Region Water Program. **\$7,750**. 2011-2012.
35. **Vogel, J.R.**, D.A. Sanders, Jane Talkington, D.E. Storm, and Dennis Martin. The Green Roof Research, Education, and Training (GRREAT) Network: A framework for advancement and education regarding green roof implementation in the Central United States. OSU Institute for Sustainable Environment. **\$5,000**. 2011-2012.
36. **Vogel, J.R.** Bird Pathogens in the Platte River. USGS Nebraska Water Science Center. **\$28,000**. 2011-2012.
37. **Vogel, J.R.**, J.B. Belden, and G.O. Brown. Investigation of the Viability of Rainfall Harvesting for Long-term Urban Irrigation: Bioaccumulating Organic Compounds and the First Flush in Rooftop Runoff. USGS 104b Grant. **\$50,000**. 2011-2012.
38. **Vogel, J.R.**, and Ellen Stevens. A Community Stormwater Management Plan for the City of Weatherford, Oklahoma. City of Weatherford, OK. **\$28,540**. 2011-2012.
39. **Vogel, J.R.**, and D.E. Storm. Flocculation Studies for Stormwater Turbidity Control. Woolpert, Inc. **\$134,489**. 2010-2011.
40. **Vogel, J.R.** Model Development. J. Hayes, LLC. **\$7,500**. 2010-2011.
41. **Vogel, J.R.** Green Entrepreneurship and Green Product Development. OSU Riata Entrepreneurship Faculty Fellow Program. **\$10,000**. 2010-2012.
42. **Vogel, J.R.**, J.B. Belden, Joseph Bidwell, and G.O. Brown. Effects of Low Impact Development Practices on the Occurrence, Transport, and Ecological Impacts of Contaminants of Emerging Concern in Urban Stormwater. OSU Institute for Sustainable Environment. **\$5,000**. 2010-2011.
43. Boyer, Tracy, Tamara Mix, **J.R. Vogel**, D.E. Storm, and Garey Fox. Adapting and Assessing Socio-Economic and Bio-physical components of Bacterial Water Contamination in the Illinois River, OK. OSU Institute for Sustainable Environment. **\$5,000**. 2010-2011.
44. **Vogel, J.R.**, H.S. Ip, and D.W. Griffin. Microbial Water-Quality Affects from Lower Flows and Increased Migratory Bird Densities Induced by Agricultural and Natural Resources

- Management Decisions in the Central Platte River Basin Ecosystem. Funded by USGS Central Region Integrated Science Program, **\$299,900**. 2009-2011.
45. **Vogel, J.R.** Fungicides in Nebraska Streams. Funded by BASF Corporation, **\$115,000**. 2008-2009.
 46. **Vogel, J.R.** Transport of Bacterial Antibiotic Resistance Genes in Runoff from Feedlot Surfaces as Affected by Wet Distillers Grain Diet. Funded by USGS North-central area Flexibility funds, **\$20,000**. 2008.
 47. **Vogel, J.R.**, and R.W. Wilson. Combined Sewer Overflow (CSO) Monitoring Plan for Omaha, Nebraska. Funded by City of Omaha, Nebraska, **\$3,328,900**. 2006-2009.
 48. **Vogel, J.R.**, R. B. Zelt, D.M. Stoeckel, and Steven Walker. Bacteriological Water Quality of Plum Creek, Nebraska. Funds from Environmental Protection Agency 104(b), Nebraska Department of Environmental Quality Section 319, and USGS matching funds, **\$237,625**. 2004-2005.
 49. Haan, C.T., D.W. Hamilton, and **J.R. Vogel**. Monitoring Detention Ponds Below Confined Animal Facilities. Oklahoma Targeted Research Initiative Program (TRIP) Project 2310, **\$18,130**. 1998-2000.

Research Proceedings, Abstracts, and Presentations

(237 total: 39 invited (2 keynote); 99 presented; 138 co-authored)

1. Chandler, W., **J.R. Vogel**, J.J. Gourley, J. Basara, G.M. Graves, and S. Yepez. Developing a Water Balance Model to Estimate Net Consumptive Use in the Southeast Watershed Planning Region of Oklahoma, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
2. Diallo, S., **J.R. Vogel**, M.C. O'Brien, K.A. Strevett. Estimating Wave Reduction by Floating Wetlands Using Small Scale Physical Models, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
3. Fleming, J.R., **J.R. Vogel**, and T. Legg. Oklahoma's Certified Erosion and Sediment Control Erosion Inspection Program, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
4. Graves, G.M., and **J.R. Vogel**. A Preliminary Comparison of Temporal & Spatial Variability of Water-Quality Parameters and *E. coli* in an Urban Oklahoma Stream, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
5. Ha, M., A. Kroboth, R. Totten, S. Yepez, **J.R. Vogel**. Low-Cost Water Infrastructure Mapping for the City of Anadarko, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
6. Legg, T., **J.R. Vogel**, J.R. Fleming, and J. Ziolkowska. The Economic Valuation of Environmental Education to the State of Oklahoma, A Preliminary Assessment, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
7. O'Brien, M., **J.R. Vogel**, G. Graves, D. Storm, S. Patterson, T. Carr, and S. Diallo. Shore Bank Erosion Due to Wave Action: An Experimental Study on the Effectiveness of Floating Wetlands in Reducing Wave Propagation, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019,

8. Rhodes, E.R., G.M. Graves, and **J.R. Vogel**. Understanding the Effectiveness of Low Impact Development in the Trailwoods Neighborhood, Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019,
9. Salvo, J., J.R. Fleming, and **J.R. Vogel**. Protecting Our Neighborhood Detention (POND) Program. Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
10. Sanders, H., **J.R. Vogel**, G.M. Graves, and E.R. Rhodes. Occurrences of *Escherichia coli* and Enterococcus Bacteria in Twenty-one Streams in Oklahoma for the 2019 Recreational Season. Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
11. Shepard, J., **J.R. Vogel**, M. Wade, A. Kuster, and G.M. Graves. Nutrient Leaching from Compost Filter Socks into Simulated Construction Site Runoff with Different Soil and Sock Sources. Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
12. Wiltsie, D., G.M. Graves, M. O'Brien, **J.R. Vogel**, T. Carr, and R. Worden. Measuring Wave Heights in Reservoirs with Acoustic Doppler Current Profilers (ADCPs) and Future Applications. Oklahoma Governors Water Conference and Research Symposium, Midwest City, OK, December 4-5, 2019.
13. **Vogel, J.R.**, J. Shepard, C. Gildea, M. Wade, and G. Graves. Compost Filter Sock Research Update, Oklahoma Compost Conference, Norman, OK, October 10, 2019. *(invited)*
14. Legg, T., **J.R. Vogel**, and J.R. Fleming. The Value of Environmental Education in Oklahoma. 2019 OU International WaTER Conference, Norman, OK, September 16-17, 2019,
15. Fleming, J.R., **J.R. Vogel**, and J. Salvo, Protecting Our Neighborhood Detention (POND) Program, EPA Region 6 Stormwater Conference, Denton, TX, July 29-August 1, 2019.
16. Graves, G.M., J. McMaine, **J.R. Vogel**, J.B. Belden, and M. Schnelle. Utilizing Bioretention for Pesticide Removal from Nursery Runoff. Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
17. McMaine, J., **J.R. Vogel**, and A. McLemore. A Simple Procedure To Optimize Low Impact Development Type And Area Treated Based On User Input. Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
18. O'Brien, M., **J.R. Vogel**, G. Graves, S. Patterson, D. Storm. Optimizing Wave Dissipation By Floating Wetlands For Reduction Of Shoreline Erosion Due To Wave Action, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
19. Salvo, J., J.R. Fleming, and **J.R. Vogel**. Protecting Our Neighborhood Detention POND Program, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
20. Vaughn, K., **J.R. Vogel**, A.J. McLemore, and K. White. Development Of An LID Design And Inspection And Maintenance Manual For The City Of Tulsa, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
21. **Vogel, J.R.**, G.O. Brown, and L. Montefiore. Progress On Using Aggregated Fly Ash For Phosphorus Removal In Bioretention, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.

22. Wade, M., **J.R. Vogel**, J. Shepard, A. Kuster, and G. Graves. Effect Of Compost Filter Socks On Nutrient And Sediment Levels In Simulated Construction Site Runoff Containing Sediment From Different Soil Types, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
23. **Vogel, J.R.**, A.J. McLemore, G.O. Brown, and L. Montefiore. Pervious Concrete Long-Term Clogging Trends And Evaluation Of Cleaning Methods, Great Plains LID Research and Innovation Symposium, Fort Collins, CO, June 24-26, 2019.
24. **Vogel, J.R.**, M. O'Brien, G. Graves, S. Patterson, R. Worden, and D. Storm. Using Floating Wetlands for Wave Dissipation to Reduce Shoreline Erosion, APWA/OWEA Annual Technical Conference, Norman, OK, May 20-22, 2019. (*invited*)
25. Woodfin, T., **J.R. Vogel**, and R. Ware. North of the Red River: the State of Green Infrastructure in Oklahoma, TX ASLA Conference, Irving, TX, April 24-26, 2019.
26. Chandler, W., **J.R. Vogel**, C. Buchanan, and G. Graves. Estimating Quarterly Storage Change in the Southeast Watershed Planning Region of Oklahoma, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
27. Kuster, A., J. Shepard, **J.R. Vogel**, and G.M. Graves. Influence of Soil Type on Compost Filter Sock Performance, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
28. Legg, T., **J.R. Vogel**, and J.R. Fleming. The Economic Valuation of Environmental Education, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
29. O'Brien, M., **J.R. Vogel**, G. Graves, and S. Diallo. Shoreline Erosion Due to Wave Action: An Experimental Study on the Effectiveness of Floating Wetlands for Wave Reduction, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
30. Rhodes, E., G.M. Graves, and **J.R. Vogel**. Occurrence of Escherichia coli and Enterococcus Bacteria in Twenty-Three Streams in Oklahoma for the 2018 Recreational Season, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
31. Salvo, J., J.R. Fleming, and **J.R. Vogel**. Protecting Our Neighborhood Detention (POND) Program, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
32. Vaughn, K., J.R. Vogel and K. White: Low Impact Development in the City of Tulsa: Characterizing Inspection and Maintenance Criteria, Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 3-4, 2019.
33. Celis, J.R., H. Moreno, **J.R. Vogel**, and T. Pham. Process-based Modeling of Soil Moisture, Soil Temperature, and Surface Energy Fluxes in the Southern Great Plains, American Geophysical Union, Washington D.C., December 10-14, 2018.
34. Pham, T., H. Moreno, **J.R. Vogel**, and J.R. Celis. On the Importance of Studying the Time Variability of the Eddy Flux Fetch for Hyper-Resolution Hydrological Modeling, American Geophysical Union, Washington D.C., December 10-14, 2018.
35. Celis, J.R., H. Moreno, **J.R. Vogel**, and T. Pham. Process-based Modeling of Soil Moisture, Soil Temperature, and Surface Energy Fluxes in the Southern Great Plains, Oklahoma

- Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
36. Chandler, W., J.R. Vogel, A. Sykora, and J. Basara. Developing a Water-balance Model for the Southeast Watershed Planning Region of Oklahoma, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 37. Kuster, A., Shepard, J., **J.R. Vogel**, G.M. Graves, and F. Ahmed. Effect of Compost Filter Socks on Nutrient and Sediment Levels in Simulated Construction Site Runoff with Kirkland-Pawhuska Soil, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 38. O'Brien, M., J.R. Vogel, and G.M. Graves. Shoreline Erosion due to Wave Action: An Experimental Study on the Effectiveness of Floating Wetlands for Wave Reduction, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 39. Pham, T., H. Moreno, **J.R. Vogel**, and J.R. Celis. On the Importance of Studying the Time Variability of the Eddy Flux Fetch for Hyper-Resolution Hydrological Modeling, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 40. Rhodes, E., G.M. Graves, and **J.R. Vogel**. Occurrence of *Escherichia coli* and Enterococcus in Oklahoma, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 41. Salvo, J., J.R. Fleming, and **J.R. Vogel**. Protecting Our Neighborhood Detention, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 42. Shepard, J., Kuster, A., **J.R. Vogel**, G.M. Graves, and F. Ahmed. Effects of Compost Filter Socks on Nutrient Concentrations in Simulated Storm Runoff with Nash-Lucien, B-Horizon soil, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 43. Vaughn, K., **J.R. Vogel**, and F. Ahmed. Development of Low Impact Development Criteria for the City of Tulsa, Oklahoma Governor's Water Conference and Research Symposium, Midwest City, Oklahoma, December 4-5, 2018.
 44. **Vogel, J.R.**, Oklahoma Water Survey, OU Water Day, Norman, Oklahoma, November 16, 2018.
 45. **Vogel, J.R.**, Stormwater and Green Infrastructure Research, OU Water Day, Norman, Oklahoma, November 16, 2018.
 46. **Vogel, J.R.**, Do Compost Filter Socks Leach Nutrients?, Oklahoma Compost Conference, Oklahoma City, Oklahoma, October 4, 2018. (*invited*)
 47. **Vogel, J.R.**, E. Fite, C. Evenson, and S. Phillips. The Future of Professionalism In Stream Restoration, OFMA Annual Conference, Broken Arrow, Oklahoma, September 16-19, 2019. (*invited panelist and moderator*)
 48. **Vogel, J.R.**, K.D. Jones, D. Gatterman, K. Kambic, S. Ganley, M. Blumhoefer. GSI LID Panel / Higher Education. EPA Region 6 Stormwater Conference, Albuquerque, New Mexico, August 19-23, 2018. (*invited panelist*)

49. **Vogel, J.R.** Nutrient Leaching from Compost Filter Socks used for Managing Construction Site Runoff. EPA Region 6 Stormwater Conference, Albuquerque, New Mexico, August 19-23, 2018.
50. **Vogel, J.R.,** J. Wright, A. Hess, E. Fassman-Beck, and C. Hinman. Future Direction for Bioretention Technology. International Low Impact Development Conference, Nashville, Tennessee, August 12-15, 2018. *(invited panelist)*
51. **Vogel, J.R.** Low Impact Development in Oklahoma. Oklahoma Section ASCE Meeting, Stillwater, Oklahoma, August 10, 2018. *(invited)*
52. **Vogel, J.R.** Do Compost Filter Socks Leach Nutrients?, OFMA Stormwater Quality Technical Conference in Midwest City, Oklahoma, on July 18, 2018. *(invited)*
53. **Vogel, J.R.,** K. Bigham, J. Diaz, L. Marlow, C. Entwistle, R.A. Persyn, and J. Wright. The Future of Stream Restoration Professionalism, Southwest Stream Restoration Conference, San Antonio, Texas, May 30-June 1, 2018. *(invited moderator and panelist)*
54. **Vogel, J.R.,** and R. Coffman. Perspectives on Low Impact Development Innovations at Multiple Scales: Oklahoma and Beyond. Oklahoma Clean Lakes and Watersheds Association Annual Conference, Stillwater, Oklahoma, April 4-5, 2018. *(invited keynote)*
55. Kuster, A., **J.R. Vogel,** and F. Ahmed. Nutrient Leaching from Compost Filter Socks. Oklahoma Clean Lakes and Watersheds Association Annual Conference, Stillwater, Oklahoma, April 4-5, 2018.
56. Marinaro, R., **J.R. Vogel,** and G.M. Graves. Investigation of Heavy Metal and Nutrient Removal from Pervious Pavement Subbase Aggregates. Oklahoma Clean Lakes and Watersheds Association Annual Conference, Stillwater, Oklahoma, April 4-5, 2018.
57. Wagner, K., **J.R. Vogel,** G. Sewell, and D. Sabatini. Role of University Water Centers and Institutes, Oklahoma Governors Water Conference, Norman, Oklahoma, October 31-November 1, 2017. *(invited, all speakers presented in panel format)*
58. **Vogel, J.R.** City of Tulsa LID Manual Update. Oklahoma Flood Managers Association Annual Meeting, Tulsa, Oklahoma, September 18-19, 2017. *(invited)*
59. **Vogel, J.R.** Vision of the Oklahoma Water Survey. Oklahoma Flood Managers Association Annual Meeting, Norman, Oklahoma, September 18-19, 2017. *(invited)*
60. Brown, G.O., **J.R. Vogel,** and L. Montefiore. Stormwater Filter Additives: A Review and Critique. Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 5-6, 2017.
61. McLemore, A.J., **J.R. Vogel,** and G.O. Brown. Long-term Hydraulic performance of Bioretention Cells. Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 5-6, 2017.
62. McMaine, J.T., **J.R. Vogel,** J.B. Belden, and M. Schnelle. Managing Water Quality of Nursery Runoff Using Constructed Wetlands. Oklahoma Clean Lakes and Watersheds Association, Stillwater, Oklahoma, April 5-6, 2017.
63. **Vogel, J.R.,** J. McMaine, J.B. Belden, and M. Schnelle. Using Constructed Wetlands for Removing Pesticides for Nursery Runoff. Oklahoma Agriculture Expo, Norman, Oklahoma, October 19, 2016. *(invited)*
64. Brown, G.O., **J.R. Vogel,** A.J. McLemore, D.E. Storm, and S. Kandel. Assessment of Aged Fly-Ash Filter Media to Remove Phosphorus from Stormwater. Oklahoma Water Research Conference, Norman, Oklahoma, October 11-12, 2016.

65. Dikes, C., **J.R. Vogel**, S. Stoodley and B. Fisher. Updating the Groundwater Protection Plans as a Result of Oil and Gas Development. Oklahoma Water Research Conference, Norman, Oklahoma, October 11-12, 2016.
66. Jones, R., **J.R. Vogel**, and S. Neupane. The Relationship Between Color and Dissolved Organic Carbon in Water. Oklahoma Water Research Conference, Norman, Oklahoma, October 11-12, 2016.
67. McLemore, A.J., **J.R. Vogel**, and G.O. Brown. Hydraulic Assessment of Bioretention Cell Performance. Oklahoma Water Research Conference, Norman, Oklahoma, October 11-12, 2016.
68. McMaine, J., **J.R. Vogel**, J. Belden, and M. Schnelle. Using Constructed Wetlands to Treat Pesticides in Nursery Runoff. Oklahoma Water Research Conference, Norman, Oklahoma, October 11-12, 2016.
69. Brown, G.O., **J.R. Vogel**, and L. Montefiore. Additives for Stormwater Filters: What Works, What Doesn't, and What is Still to Be Learned. EPA Region 6 Stormwater Conference, Oklahoma City, Oklahoma, October 3-6, 2016.
70. Brown, G.O., **J.R. Vogel**, and D. Storm. Using Fly Ash to Retain Phosphorous and Heavy Metals in Stormwater Filters. EPA Region 6 Stormwater Conference, Oklahoma City, Oklahoma, October 3-6, 2016.
71. **Vogel, J.R.**, and A. McLemore. Progress on Developing LID Design Criteria for the City of Tulsa. Oklahoma Floodplain Managers Annual Meeting, Tulsa, Oklahoma, September 19-20, 2016.
72. **Vogel, J.R.**, G.O. Brown, A.J. McLemore, and J.T. McMaine. Short-term and Long-term Results of Bioretention Cell Retrofits in Two Oklahoma Watersheds. ASCE-EWRI International Low Impact Development Conference 2016, Portland, Maine, August 29-31, 2016.
73. McLemore, A.J., **J.R. Vogel**, and L. Montefiore. Pervious Concrete Long-term Clogging Trends and Evaluation of Cleaning Methods to Restore Infiltration Rate. ASCE-EWRI International Low Impact Development Conference 2016, Portland, Maine, August 29-31, 2016.
74. Bigham, K.A., T.L. Moore, T.D. Keane, and **J.R. Vogel**. Repeatability and Sensitivity Analysis of the Rosgen BANCS Model Developed to Predict Annual Streambank Erosion Rates. Rocky Mountain Stream Restoration Conference, Breckenridge, Colorado, July 19-21, 2016.
75. **Vogel, J.R.**, S. Youngblood, D. Griffin, G. Brown, and D. Storm. Microbial Removal Efficiency within Bioretention Filter Media in Laboratory and Field Environments. ASABE Annual International Meeting, Orlando, Florida, July 18-20, 2016.
76. McLemore, A.J., **J.R. Vogel**, and L. Montefiore. Pervious Concrete Long-term Clogging Trends and Evaluation of Cleaning Methods to Restore Infiltration Rate. ASABE Annual International Meeting, Orlando, Florida, July 18-20, 2016.
77. McMaine, J., **J.R. Vogel**, J. Belden, G. Fox, and M. Schnelle. Reducing Pesticides from Nursery Runoff Using Constructed Wetlands. ASABE Annual International Meeting, Orlando, Florida, July 18-20, 2016.

78. Muell, J.D., and **J.R. Vogel**. Sensitivity of Streambank Stability Assessment by Empirical Sediment Capacity Analysis. ASABE Annual International Meeting, Orlando, Florida, July 18-20, 2016.
79. Brown, G.O., D.E. Storm, and **J.R. Vogel**. Fly Ash Amended Filter Media to Enhance Phosphorous Removal from Stormwater Runoff. Oklahoma Clean Lakes and Watersheds Association Conference, Stillwater, OKOklahoma, March 29-30, 2016.
80. Brown, G.O., N. Ruiz, and **J.R. Vogel**. Quantifying the Impact to Oklahoma's Waters from Oil and Gas Production. Oklahoma Clean Lakes and Watersheds Association Conference, Stillwater, Oklahoma, March 29-30, 2016.
81. Dikes, C., S. Stoodley, B. Fisher, and **J.R. Vogel**. Updating the Chickasaw Wellhead Protection Plan. Oklahoma Clean Lakes and Watersheds Association Conference, Stillwater, Oklahoma, March 29-30, 2016.
82. McLemore, A.J., **J.R. Vogel**, G.O. Brown, and S. Kandel. Effectiveness of Bioretention Cells for Removal of Pollutants from Stormwater in Oklahoma. Oklahoma Clean Lakes and Watersheds Association Conference, Stillwater, Oklahoma, March 29-30, 2016.
83. Kandel, S., G.O. Brown, **J.R. Vogel**, and C. Penn. Evaluating Aged Bioretention Cells for Enhanced Phosphorus Removal Using Fly Ash as a Filter Media and Water Quality Improvement. Oklahoma Water Research Symposium, Norman, Oklahoma, December 1-2, 2015.
84. McLemore, A.J., **J.R. Vogel**, and L. Montefiore. Tulsa Pervious Concrete Demonstration Study: Long-Term Infiltration Testing and Evaluation of Cleaning Techniques. Oklahoma Water Research Symposium, Norman, Oklahoma, December 1-2, 2015.
85. McMaine, J., **J.R. Vogel**, J.B. Belden, and M. Schnelle. Reducing Pesticides from Container Nursery Runoff Using Constructed Wetlands. Oklahoma Water Research Symposium, Norman, Oklahoma, December 1-2, 2015.
86. Melone, M., **J.R. Vogel**, and G.O. Brown. Design Optimization of Bioseparator for Removal of Petroleum Hydrocarbons from Stormwater Runoff. Oklahoma Water Research Symposium, Norman, Oklahoma, December 1-2, 2015.
87. **Vogel, J.R.**, A.J. McLemore, R.R. Coffman, J.T. McMaine, and G.O. Brown. Bioretention Cell Retrofits in a Suburban Neighborhood in Oklahoma City. OK. EPA Region 6 Stormwater Conference, Hot Springs, Arkansas, October 18-22, 2015. (*first place, Professional Division, LID/GI Project Competition; People's Choice Award*)
88. Eger, J., D. Haak, S. Perea, M. Smith, **J.R. Vogel**, and R.L. Melton. GI/LID Panel, US EPA Region 6 Stormwater Conference, Hot Springs, Arkansas, October 18-22, 2015. (*invited panel*)
89. McLemore, A.J., **J.R. Vogel**, and L. Montefiore. Tulsa Pervious Concrete Demonstration Study: Long-term Infiltration Testing and Evaluation of Cleaning techniques. EPA Region 6 Stormwater Conference, Hot Springs, Arkansas, October 18-22, 2015. (*first place, Student Division, LID/GI Poster Competition*)
90. McLemore, A., **J.R. Vogel**, S. Kandel, G.O. Brown, R.R. Coffman, M. Melone, and E. Hickman. Designing, Building, and Monitoring Bioretention Cells in Oklahoma. Oklahoma Flood Managers Association Annual Conference, Norman, Oklahoma, September 21-23, 2015.

91. Brown, G.O., **J.R. Vogel**, D.E. Storm, and C. Penn. Should Fly Ash Be Used in Stormwater Filter Media? 2015 ASABE Annual International Meeting, New Orleans, Louisiana, July 26-29, 2015.
92. Kandel, S., G.O. Brown, **J.R. Vogel**, C. Penn, and D.E. Storm. Long-term Performance of Bioretention Cells with a Fly Ash Filter Media. 2015 ASABE Annual International Meeting, New Orleans, Louisiana, July 26-29, 2015.
93. McLemore, A.J., **J.R. Vogel**, G.O. Brown, and M.A. Melone. Biofiltration Vane: a New LID Approach for Sloped Drainage Ways. 2015 ASABE Annual International Meeting, New Orleans, Louisiana, July 26-29, 2015.
94. McMaine, J., **J.R. Vogel**, J. Belden, M. Schnelle, and E. Rebek. Using Low Impact Development Concepts to Remove Pesticides from Runoff on a Large-scale Container Nursery. 2015 ASABE Annual International Meeting, New Orleans, Louisiana, July 26-29, 2015.
95. Melone, M.A., **J.R. Vogel**, and G.O. Brown. Design Optimization of Bioseparator for Removal of Petroleum Hydrocarbons from Stormwater Runoff. 2015 ASABE Annual International Meeting, New Orleans, Louisiana, July 26-29, 2015.
96. **Vogel, J.R.**, A.J. McLemore, and L. Montefiore. What if we don't maintain it? Long-term Clogging and Cleaning Method Assessment for Pervious Concrete. 2015 Arkansas Water Resources Conference, Fayetteville, Arkansas, July 21-22, 2015. (*invited*)
97. **Vogel, J.R.** Low Impact Development: Using the Landscape to Manage Runoff. Inter-Tribal Environmental Council conference, Hard Rock Conference Center, Catoosa, Oklahoma, July 8, 2015. (*invited*)
98. **Vogel, J.R.**, L. Montefiore, and A.J. McLemore. Long-term Infiltration and Cleaning at the Tulsa Pervious Concrete Demonstration Site. Oklahoma Floodplain Managers Association Spring Meeting, Catoosa, Oklahoma, April 2, 2015. (*invited*)
99. Coffman, R., Graves, D., **Vogel, J.R.**, and G. Brown, "Vegetation in dryland bioretention", Conference Proceedings Council of Educators of Landscape Architecture (CELA), Manhattan, Kansas, March 2015.
100. McLemore, A.J., **J.R. Vogel**, and J.T. McMaine. Biofiltration Vane, a New LID Approach for Sloped Drainage Ways. International Low Impact Development Conference 2015, Houston, Texas, January 19-21, 2015.
101. McMaine, J.T., **J.R. Vogel**, J. Belden, E. Rebek, and M. Schnelle. Using Bioretention to Reduce Pesticide Loading in Nursery Runoff. International Low Impact Development Conference, Houston, Texas, January 19-21, 2015.
102. **Vogel, J.R.** Public-Private LID Collaborations in Green Country: the City of Tulsa Pervious Concrete Test Plots and the Green Country LID Design Competition. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.
103. Kandel, S., G.O. Brown, **J.R. Vogel**, C. Penn. Evaluating Bioretention Cells for Enhanced Phosphorus Removal Using Fly Ash as Filter Media and Water Quality Improvement. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.
104. McLemore, A., **J.R. Vogel**, G.O. Brown, and J.T. McMaine. Construction of Bioretention Cell Retrofits in a Suburban Neighborhood. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.

105. McMaine, J.T., **J.R. Vogel**, J.B. Belden, M. Schnelle, and E. Rebek. Construction of Bioretention Cell Retrofits in a Suburban Neighborhood. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.
106. Melone, M., **J.R. Vogel**, and G.O. Brown. Design Optimization of an Innovative, Passive Bioseparator for Removal of Petroleum Hydrocarbons from Stormwater Runoff. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.
107. Neupane, S., and **J.R. Vogel**. Assessment of Cattle Crossing Effects on Alluvial Stream Stability in the Fort Cobb Watershed in Oklahoma. Oklahoma Water Research Conference, Oklahoma City, Oklahoma, October 22-23, 2014.
108. **Vogel, J.R.** Resilient Landscapes. American Planning Association Oklahoma Chapter Annual Conference, Norman, Oklahoma, October 2-3, 2014. (*invited*)
109. **Vogel, J.R.** Conservation Using Low Impact Development. Restoration of Our Rivers—Illinois River Watershed Partnership Annual Conference, Bentonville, Arkansas, October 2-3, 2014. (*invited*)
110. **Vogel, J.R.** The Green Country LID Design Competition. Oklahoma Floodplain Managers Association Annual Meeting, Tulsa, Oklahoma, September 15-17, 2014. (*invited*)
111. **Vogel, J.R.** Controlling Pesticide Runoff from Nurseries using LID and On-site Management Techniques. EPA Region 6 MS4 Stormwater Conference, Fort Worth, Texas, July 27-August 1, 2014.
112. **Vogel, J.R.** The Green Country LID Design Competition. EPA Region 6 MS4 Stormwater Conference, Fort Worth, Texas, July 27-August 1, 2014.
113. **Vogel, J.R.**, G. Graves, J.B. Belden, and E. Rebek. Management of Pesticides in Tree Nursery Runoff. 2014 ASABE International Meeting, Montreal, Quebec, Canada. July 13-16, 2014.
114. McLemore, A., B. Rogers, **J.R. Vogel**, D.E. Storm, N. Bhadhade, and M. Kegley, 2014. Field experiments of a passive flocculant injection system for the treatment of turbid stormwater runoff. ASABE International Meeting, Montreal, Quebec, Canada. July 13-16, 2014
115. Neupane, S., **J.R. Vogel**, D.E. Storm, B.J. Barfield, B.C. Rogers, A. Mittlestet, and A. McLemore. Numerical Modeling for Construction Site Runoff Turbidity. ASCE-EWRI World Environmental and Water Resources Congress, Portland, Oregon, June 1-5, 2014.
116. **Vogel, J.R.** 2014. The Evolution of LID Research: Validation, Optimization, Implementation. Great Plains LID Research and Innovation Symposium, Catoosa, Oklahoma, April 3, 2014. (*invited kickoff speaker*)
117. Hickman, E.L., **J.R. Vogel**, G.O. Brown, and A. McLemore. Comparison of Fly-Ash and non-fly-ash Media in Bioretention Cells. Great Plains LID Research and Innovation Symposium, Catoosa, Oklahoma, April 3, 2014.
118. Kandel, S., G.O. Brown, **J.R. Vogel**, and A. McLemore. Phosphorus Retention by Bioretention Cells Amended with Fly Ash. Great Plains LID Research and Innovation Symposium, Catoosa, Oklahoma, April 3, 2014.
119. Lay, J.J., **J.R. Vogel**, G.O. Brown, J.B. Belden. Water Quality and the First Flush in Harvested Rainwater. Great Plains LID Research and Innovation Symposium, Catoosa, Oklahoma, April 3, 2014.

120. **Vogel, J.R.**, J.R. Fleming, and G. Levesque. 2013. Stream Bank Restoration. American Planning Association Oklahoma Chapter Annual Meeting, Tahlequah, Oklahoma, October 2-4, 2013. *(invited)*
121. Lay, J.J., B.M. Koroma, **J.R. Vogel**, J.F. Borsuah, and G.O. Brown. 2013. Rainwater harvesting first-flush research and implementation of results in Sierra Leone. 2013 University of Oklahoma International WaTER Conference, Norman, Oklahoma, September 23-25, 2013.
122. Collins, T., Y. Hong, T. Liu, **J.R. Vogel**, H. Yu, and L. Zhu. 2013. Decision Support System for Road Closures in Flash Flood Emergencies. 2013 ODOT-OkTC Transportation Research Day, Oklahoma City, Oklahoma, September 12, 2013.
123. **Vogel, J.R.** 2013. Ongoing LID Research. 2013 Oklahoma Floodplain Managers Association Annual Conference. Norman, Oklahoma, September 16-18, 2013. *(invited)*
124. **Vogel, J.R.**, and E. Stevens. 2013. City of Weatherford Stormwater Case Study. 2013 Oklahoma Floodplain Managers Association Annual Conference. Norman, Oklahoma, September 16-18, 2013.
125. **Vogel, J.R.**, H. Malle, and D.E. Storm. 2013. Curve Number Estimation for Engineered Gravel Parking Lots. 2013 International Low Impact Development Symposium, St. Paul, Minnesota, August 18-21, 2013.
126. Graves, G., **J.R. Vogel**, J. Belden, and E. Rebek. 2013. Investigation of Bifenthrin Leaching from Potted Nursery Stock. 2013 International Low Impact Development Symposium, St. Paul, Minnesota, August 18-21, 2013.
127. **Vogel, J.R.** 2013. Successful Application of Extension Client Issues into Special Topics Graduate Courses Related to Low Impact Development in Oklahoma. 2013 Annual International Meeting, Kansas, City, Missouri, July 21-24, 2013.
128. Bhadbhade, N., **J.R. Vogel**, D.E. Storm, and B.J. Barfield. 2013. Estimation of the parameters that affect the formation and breakage of flocs formed in sediment runoff from construction sites. 2013 Annual International Meeting, Kansas, City, Missouri, July 21-24, 2013.
129. Graves, G., **J.R. Vogel**, J. Belden, and E. Rebek. 2013. Investigation of Bifenthrin Leaching from Potted Nursery Stock. 2013 Annual International Meeting, Kansas, City, Missouri, July 21-24, 2013.
130. Malle, H., **J.R. Vogel**, D.E. Storm. 2013. Curve Number Estimation for Engineered Gravel Parking Lots. 2013 Annual International Meeting, Kansas, City, Missouri, July 21-24, 2013.
131. Lay, J.J., B.M. Koroma, **J.R. Vogel**, J.F. Borsuah, and G.O. Brown. 2013. Improving Water Quality in Rainwater Harvesting in Sierra Leone. 2013 Annual International Meeting, Kansas, City, Missouri, July 21-24, 2013.
132. Graves, G., **J.R. Vogel**, J. Belden, E. Rebek, and A. Simpson. 2013. Investigation of Bifenthrin Leaching from Potted Nursery Stock. SETAC Ozark-Prairie Chapter Annual Meeting, Columbia, Missouri, May 20-22, 2013.
133. Fleming, J.R. and **J.R. Vogel**. Moving from “You want to do what?” to “How do we do more?”. Southwest Stream Restoration Conference, San Antonio, Texas, May 28-30, 2013.

134. **Vogel, J.R.** 2013. Predictable Turbidity Reduction in Construction Site Runoff Using Liquid Flocculant. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
135. Neupane, S., A. Mittelstet, B. Rogers, A. McLemore, **J.R. Vogel**, D.E. Storm and B.J. Barfield. Quantifying the Relationship between Turbidity and Suspended Sediment Concentration in Construction Site Runoff. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
136. Bhadbhade, N., **J.R. Vogel**, D.E. Storm, B.J. Barfield, S. Harp, A. Mittlestet, and B. Rogers. 2013. Measurement of Parameters Affecting the Formation and Breakage of Flocs. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
137. Graves, G., **J.R. Vogel**, J. Belden, and E. Rebek. 2013. Investigation of Bifenthrin Leaching from Potted Nursery Stock. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
138. McLemore, Alex, **J.R. Vogel**, G.O. Brown, D.E. Storm, R. Coffman, and J. Fleming. 2013. Demonstration and Quantification of Bioretention Cell Retrofits in a Suburban Neighborhood. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
139. Mittelstet, A.R., A.G. Tobergte, D.E. Storm, B.C. Rogers, and **J.R. Vogel**. 2013. Flocculant Property Measurement for Stormwater Runoff Control. Oklahoma Clean Lakes and Watersheds Conference, Stillwater, Oklahoma, April 18-19, 2013.
140. **Vogel, J.R.**, J.J. Lay, J.B. Belden, and G.O. Brown, 2012. Polycyclic Aromatic Hydrocarbons (PAHs) in Harvested Rainwater. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
141. Graves, G., **J.R. Vogel**, J.B. Belden, and E. Rebek, 2012. Investigation of Insecticide Leaching and Transport from Potted Nursery Stock. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
142. Lisenbee, W., and **J.R. Vogel**, 2012. Plant Growth in Lightweight Green Roof Media. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
143. Malle, H., **J.R. Vogel**, D.E. Storm, and T. Ochsner, 2012. Curve Numbers of Engineering Gravel Parking Lots. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
144. Neupane, S., E.M. Yager, and **J.R. Vogel**, 2012. Potential Application of a Study Method of Climate Change Impacts on Chinook Salmon Habitat to Ouachita Rock Pocketbook in Southeast Oklahoma. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
145. Rogers, B., M.K. Beitz, N. Bhadbhade, S. Neupane, **J.R. Vogel**, B.J. Barfield, A. Mittelstet, D.E. Storm, and S. Harp, 2012. Turbidity-SSC Relationships for Oklahoma Soils. Oklahoma Water Research Conference, Tulsa, Oklahoma, November 13-14, 2012.
146. **Vogel, J.R.**, and G.O. Brown, 2012. Heterogeneous Porous Media Structure Analysis with Computerized Tomography Images and a Multi-Phase Bin Semivariogram. Symposium on "Tomography and Imaging of Soil-Water-Root Processes" at the 2012 SSSA International Annual Meeting, Cincinnati, Ohio, October 21-24, 2012.

147. Coffman, R., P. Klein, L. Fithian, and **J.R. Vogel**, 2012. Performance and Establishment in Extreme Climatic Conditions: The NWC Green Roof. 10th Annual CitiesAlive Green Roof and Wall Conference, Chicago, Illinois, October 17-20, 2012.
148. Graves, G., **J.R. Vogel**, J.B. Belden, and E. Rebek, 2012. Investigation of Insecticide Leaching and Transport from Potted Nursery Stock. 20th Annual Nonpoint Source Monitoring Workshop, Tulsa, Oklahoma, October 14-17, 2012.
149. Malle, H.R., **J.R. Vogel**, and D.E. Storm. Curve Number Estimation for Engineered Gravel Parking Lots. 20th Annual Nonpoint Source Monitoring Workshop, Tulsa, Oklahoma, October 14-17, 2012.
150. **Vogel, J.R.**, 2012. Innovative LID-related Educational Outreach Activities from Oklahoma Cooperative Extension Service. Oklahoma Floodplain Managers Association Fall Meeting, Tulsa, Oklahoma, September 17-19, 2012. (*invited*)
151. Klein, P.M., R. Coffman, L. Fithian, and **J.R. Vogel**, 2012. Performance Evaluation of an Experimental Green Roof in a Semi-Arid Region. 8th International Conference on Urban Climate, August 6-10, 2012, Dublin, Ireland.
152. Lay, J.J., **J.R. Vogel**, J.B. Belden, and G.O. Brown, 2012. An Update on Quantifying the First Flush in Rooftop Rainwater Harvesting. 2012 ASABE International Meeting, Dallas, Texas, July 29-August 1, 2012.
153. Lay, J.J., B.M. Koroma, **J.R. Vogel**, J.B. Belden, and G.O. Brown, 2012. Quantifying the First Flush in Rooftop Rainwater Harvesting in Sierra Leone. 2012 ASABE International Meeting, Dallas, Texas, July 29-August 1, 2012.
154. **Vogel, J.R.**, 2012. Water-related Green Roof Research in Oklahoma. Oklahoma City Green Roof Symposium, Oklahoma City, Oklahoma, July 12, 2012. (*invited*)
155. **Vogel, J.R.**, 2012. Developing and Modeling of a Passive Flocculent Injection System for Turbidity Reduction in Storm Water Runoff. 2012 EPA Region 6 MS4 Storm Water Conference, Ft. Worth, Texas, June 24-29, 2012.
156. Barfield, B.J., S. Patil, N. Bhadbhade, D. Storm, **J.R. Vogel**, and S.L. Harp. Construction Site Sediment Control Modeling. 21st Century Watershed Technology Conference and Workshop: Improving Water Quality and the Environment. Bari, Italy, May 26-June 1, 2012.
157. **Vogel, J.R.**, J.J. Lay, J.B. Belden, and G.O. Brown, 2012. Investigation of the Viability of Rainfall Harvesting for Long-term Urban Irrigation: Bioaccumulating Organic Compounds and the First Flush in Rooftop Runoff. 2012 World Environmental and Water Resources Congress, Albuquerque, New Mexico, May 20-24, 2012.
158. Beitz, M.K., **J.R. Vogel**, D.E. Storm, and D. Martin, 2012. Survivability of *Buchloe Dactyloides* 'Prestige' (Prestige Buffalograss) green roofs in Oklahoma Summer Climate Conditions. 2012 Annual OCLWA Conference, Edmond, Oklahoma, April 12-13, 2012.
159. Garbrecht, K.M., **J.R. Vogel**, D.E. Storm, and B.J. Barfield, 2011. Passive Flow Regulated Chemical Injection System for Sediment Removal from Runoff. Oklahoma Water Research Symposium, Norman, Oklahoma, October 18-19, 2011.
160. Lay, J.J., **J.R. Vogel**, J.B. Belden, and G.O. Brown, 2011. Quantifying the First Flush in Rooftop Rainwater Harvesting through Continuous Monitoring and Analysis of Stormwater Runoff, National Low Impact Development Symposium. Philadelphia, Pennsylvania, September 25-28, 2011.

161. **Vogel, J.R.**, R.R. Coffman, Petra Klein, and Lee Fithian, 2011. Atmospheric and Energy Studies on a Semi-Arid Experimental Green Roof. National Low Impact Development Symposium, Philadelphia, Pennsylvania, September 25-28, 2011.
162. **Vogel, J.R.**, 2011. Recent Low Impact Development Advances and Innovations for Managing Stormwater Quantity and Quality. Oklahoma Floodplain Managers Fall meeting, Norman, Oklahoma, September 20, 2011. *(invited)*
163. Bhadbhade, N.M., **J.R. Vogel**, D.E. Storm, B.J. Barfield, Aaron Mittlestet, Hayat Azawi, K.M. Garbrecht, and Alex Tobertge, 2011. Measurement of the Parameters Affecting the Formation and Breakage of Flocs. International Symposium on Erosion and Landscape Evolution Conference Proceedings, Anchorage, Alaska, September 18-21, 2011.
164. Garbrecht, K.M., **J.R. Vogel**, D.E. Storm, and B.J. Barfield, 2011. A Passive Flocculant Injection System for Sediment Control on Construction Sites. International Symposium on Erosion and Landscape Evolution Conference Proceedings, Anchorage, Alaska, September 18-21 2011.
165. **Vogel, J.R.**, 2011. Pharmaceuticals and Emerging Contaminants in the Environment. Southern Region Water Conference—Innovations and Partnerships for Clean Water, Athens, Georgia, September 12-16, 2011.
166. Lay, J.J., **J.R. Vogel**, J.B. Belden, and G.O. Brown, 2011. Quantifying the First Flush in Rooftop Rainwater Harvesting through Continuous Monitoring and Analysis of Stormwater Runoff. 2011 International Conference of the ASABE. Louisville, Kentucky, August 7-10, 2011.
167. **Vogel, J.R.**, D.E. Storm, K.M. Garbrecht, N.M. Bhadbhade, B.J. Barfield, Alex Tobertge, and H Azawi, 2011. Design, Modeling, and Testing of a Passive Flocculant Injection System for Controlling Sediment Concentrations in Stormwater. 2011 International Conference of the ASABE. Louisville, Kentucky, August 7-10, 2011.
168. **Vogel, J.R.**, 2011. The New Oklahoma State University LID Program: Infiltrating into the Stormwater Community. 13th Annual EPA Region 6 MS4 Operators Conference, San Antonio, Texas, July 5-8, 2011.
169. Coffman, R.R., Petra Klein, Lee Fithian, and **J.R. Vogel**, 2011. Atmospheric and Energy Studies in a Semi-Arid Experimental Station. Growest: Western Green Roofs Annual Conference, Denver, Colorado, June 17, 2011.
170. Garbrecht, K.M., B.J. Barfield, **J.R. Vogel**, and Alex Tobertge, 2011. ASCE World Environmental and Water Resources Congress, Palm Springs, California, May 22-26, 2011.
171. **Vogel, J.R.**, 2011. Atmospheric and Energy Studies on a Semi-Arid Experimental Green Roof. 11th Annual Meeting of the American Ecological Engineering Society, Asheville, North Carolina, May 23-25, 2011.
172. **Vogel, J.R.**, 2011. Progress on a Passive System for Turbidity Control in Construction Site Runoff. Oklahoma Clean Lakes and Watersheds Association Annual Meeting, Edmond, Oklahoma, April 7-8, 2011.
173. **Vogel, J.R.**, 2011. Green Entrepreneurship. OSU Riata Faculty Forum, Stillwater, Oklahoma, February 25, 2011.
174. **Vogel, J.R.**, D.E. Storm, B.J. Barfield, S. Harp, K. Garbrecht, and N. Bhadbhade, 2011. Reduction and Modeling of Turbidity in Construction Site Runoff using Flocculants. Oklahoma Section ASABE Meeting. Stillwater, Oklahoma, February 17, 2011.

175. **Vogel, J.R.**, 2010. Utilizing and Enhancing Natural Processes: The OSU Low Impact Development Research and Extension Program. Oklahoma Water Research Symposium. Norman, Oklahoma, October 26-27, 2010.
176. **Vogel, J.R.**, 2010. The Cow Creek Stream Corridor Restoration Project. Oklahoma Floodplain Managers Annual Meeting. Tulsa, Oklahoma, September 20, 2010. (*invited*)
177. **Vogel, J.R.**, Hon Ip, Dale Griffin, J.W. Santo Domingo, Nicholas Ashbolt, and M.T. Moser, 2010. Avian Pathogens in the Platte River During Spring Migration. 2010 International Conference of the ASABE, Pittsburgh, Pennsylvania, June 21-24, 2010.
178. Lu, Jingrang, **J.R. Vogel**, Hodon Ryu, J.W. Santo Domingo, and Nicholas Ashbolt, 2010. Molecular Detection of Campylobacter and Fecal Indicators during the Northern Migration of Sandhill Cranes (*Grus canadensis*) at the Central Platte River. American Society of Microbiology Annual Meeting, San Francisco, California, May 2010.
179. Ryu, Hodon, Brandon Iker, **J.R. Vogel**, and J.W. Santo Domingo, 2010. Molecular characterization of bacterial populations in crane feces. American Society of Microbiology Annual Meeting, San Francisco, California, May 2010.
180. **Vogel, J.R.**, and M.S. Sandstrom, 2010. Fungicides in Nebraska Streams. Seventh National Water Monitoring Conference. Denver, Colorado, April 25-29, 2010.
181. **Vogel, J.R.**, 2010. The Scoop on Crane Poop: Microbial Water-Quality Effects of Migratory Birds in the Central Platte River. University of Nebraska Water and Natural Resources seminar series, Lincoln, Nebraska, April 14, 2010. (*invited*)
182. **Vogel, J.R.**, 2010. Preliminary Results of Bird Pathogen Studies in the Platte River. Platte River Whooping Crane Maintenance Trust, Alda, Nebraska, March 23, 2010. (*invited*)
183. Gilley, J.E., **J.R. Vogel**, Roger Eigenberg, David Marx, Bryan Woodbury, 2010. Nutrient Transport in Runoff from Feedlots as Affected by Wet Distiller's Grain Diet. USDA National Water Conference, Hilton Head, South Carolina, February 21-24, 2010.
184. **Vogel, J.R.**, Dale Griffin, and Hon Ip, 2009. Microbial Water-Quality Effects of Migratory Birds in the Platte River, National Environmental Public Health Conference, Atlanta, Georgia, October 2009.
185. **Vogel, J.R.**, Hon Ip, and Dale Griffin, 2009. Microbial Water-Quality Effects of Migratory Birds in the Platte River. 2009 Platte River Symposium, Kearney, Nebraska, October 2009.
186. **Vogel, J.R.**, Jill Frankforter, and David Rus, 2009. Organic wastewater compounds in combined sewer overflows, stormwater, and receiving streams in Omaha, Nebraska. ACS 238th National meeting, Washington, D.C., August 2009.
187. **Vogel, J.R.**, and Mark Sandstrom, 2009. Foliar fungicide occurrence in urban and agricultural streams, ACS 238th National meeting, Washington, D.C., August 2009.
188. **Vogel, J.R.**, Lisa Fogarty, John Gilley, James Wells, Elaine Berry, and Bryan Woodbury, 2009. The Effect of a Distillers Grain Diet on Bacterial Antibiotic Resistance in Cattle Feedlots. 2009 International Conference of the ASABE, Reno, Nevada, June 2009.
189. **Vogel, J.R.**, J.E. Gilley, B.L. Woodbury, G.L. Cottrell, and R.A. Eigenberg, 2009. The Effect of Pond Ash Amendments on Trace Metal Concentrations in Feedlot Surface Soil and Runoff, 2009 International Conference of the ASABE, Reno, Nevada, June 2009.
190. Gilley, J.E., R.A. Eigenberg, D.B. Marx, **J.R. Vogel**, B.L. Woodbury, 2009. Nutrient Transport in Runoff from Feedlot Surfaces as Affected by Wet Distillers Grain Diet, 2009 International Conference of the ASABE, Reno, Nevada, June 2009.

191. Gilley, J.E., R.A. Eigenberg, D.B. Marx, **J.R. Vogel**, B.L. Woodbury. Nutrient and Microbial Transport in Runoff from Soil and Pond Ash Feedlot Pen Surfaces, 2009 International Conference of the ASABE, Reno, Nevada, June 2009.
192. Gilley, J.E., R.A. Eigenberg, D.B. Marx, **J.R. Vogel**, B.L. Woodbury. Nutrient Transport from Feedlot Surfaces as Affected by Unconsolidated Surface Material, 2009 International Conference of the ASABE, June 2009.
193. **Vogel, J.R.**, 2009. Fungicides in Nebraska Streams. Nebraska Independent Crop Consultant Association Spring Meeting, Grand Island, Nebraska, March 2009. (*invited*)
194. **Vogel, J.R.**, Pharmaceuticals in the Environment Research in Nebraska, 2008. Nebraska League of Conservation Voters, Lincoln, Nebraska, September 2008. (*invited*)
195. **Vogel, J.R.**, Potential Bacterial Sources in the Niobrara National River, 2008. Niobrara Council, Valentine, Nebraska, August 2008. (*invited*)
196. **Vogel, J.R.**, Water Quality Impacts and Preliminary Control Plan for a Combined Sewer Overflow System. 2008 International Conference of the ASABE, Providence, Rhode Island, June 2008.
197. **Vogel, J.R.**, Design and Operation of a CSO Monitoring Network in Omaha, Nebraska. Presentation to UNL Civil Engineering Graduate Seminar, March 2008.
198. **Vogel, J.R.**, 2008. Transport and Fate of Agricultural Chemicals in the Maple Creek Watershed. Nebraska Association of Resource Districts, Lincoln, Nebraska, February 6, 2008. (*invited*)
199. **Vogel, J.R.**, J.D. Frankforter, D.L. Rus, and C.M. Hobza, 2007. How to Sample and Process Over 50 Samples a Day: The Omaha CSO Monitoring Network. USGS Water Quality Workshop, Galveston, Texas, November 2007.
200. **Vogel, J.R.**, D.L. Rus, J.D. Frankforter, C.M. Hobza, and J.E. Theiler, 2007. Endocrine Disrupting Compounds from Combined Sewer Overflows. 6th International Conference on Pharmaceuticals and EDCs in Water, Costa Mesa, California, October 2007.
201. **Vogel, J.R.**, D.S. Stoeckel, J.W. Santo Domingo, and Regina Lamendella, 2007. Microbial Source Tracking in the Plum Creek Watershed in Central Nebraska, 2007 International Conference of the ASABE, Minneapolis, Minnesota, June 2007.
202. **Vogel, J.R.**, Pharmaceuticals in the Environment Research in Nebraska, 2007. Nebraska Pharmacists Association Annual Meeting, Lincoln, Nebraska, June 2007. (*invited*)
203. Nelson, Patricia, and **J.R. Vogel**, 2007. The Omaha CSO Water Quality Monitoring Study – the First Year. 51st Annual Great Plains Waste Management Conference, Council Bluffs, Iowa, March 22-23, 2007.
204. **Vogel, J.R.**, M.S. Majewski, and P.D. Capel, 2006. Atmospheric Transport and Deposition of Agricultural Chemicals in Rainfall. “Managing Agricultural Landscapes for Environmental Quality, Strengthening the Science Base,” Soil and Water Conservation Society, Kansas City, Missouri, October 11-13, 2006.
205. Puckett, L.J., H.I. Essaid, C.M. Zamora, J.T. Wilson, M.J. Brayton, H.M. Johnson, **J.R. Vogel**, and Steve Phillips, 2006. Transport and fate of nitrate at the ground water-surface water interface. 2006 AGU Spring Meeting, Baltimore, Maryland, May 23-26, 2006.
206. Hancock, T.C., **J.R. Vogel**, M.W. Sandstrom, P.D. Capel, R.E. Bayless, and R.M.T. Webb, 2006. Herbicide Transport and Transformations in the Unsaturated Zone of Three Small Agricultural Basins with Corn and Soybean Row Crops. 2006 AGU Spring Meeting, Baltimore, Maryland, May 23-26, 2006.

207. Majewski, M.S., **J.R. Vogel**, and P.D. Capel, 2006. Atmosphere Transport and Deposition of Agricultural Chemicals. 2006 AGU Spring Meeting, Baltimore, Maryland, May 23-26, 2006.
208. Lamendella, Regina, J.W. Santo Domingo, D.B. Oerther, **J.R. Vogel**, and D.M. Stoeckel, 2006. Assessment of Fecal Pollution Sources in Plum Creek Watershed Using *Bacteroidetes* 16S rDNA-Based Assays. American Society of Microbiologists 106th General Meeting, Orlando, Florida, May 21-25, 2006.
209. Hancock, T.C., and **J.R. Vogel**, 2006. Herbicide transport and transformations in the unsaturated zone of two small agricultural basins with corn and soybean row crops. National Water Quality Monitoring Conference, San Jose, California, May 2006.
210. Majewski, M.S., **J.R. Vogel**, and P.D. Capel, 2006. Transport of Agricultural Chemicals—Atmosphere to Land Surface. National Water Quality Monitoring Conference, San Jose, California, May 2006.
211. **Vogel, J.R.**, M.T. Meyer, and E.T. Furlong, 2006. A Final Report on Pharmaceuticals and Endocrine Disrupting Compounds in a Riverbank Filtration System, Platte River, Nebraska. 5th International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water, Costa Mesa, California, March 13-15, 2006.
212. **Vogel, J.R.**, 2006. A Primer on Microorganisms in Water. Nebraska Governor's Drinking Water Advisory Council, Lincoln, Nebraska, March 2006. (*invited*)
213. **Vogel, J.R.**, Stephanie Harris, Eugene Rice, and Jerry Obrist, 2005. Riverbank Filtration of *Cryptosporidium*, *Giardia*, and other Microbial Indicators, Platte River, Nebraska. Major Accomplishments and Future Directions in Public Health Microbiology Workshop, Columbus, Ohio, February 15-18, 2005.
214. Zelt, R., C. Knowlton, J. Carpenter, and **J.R. Vogel**, 2004. Ground Water/Surface Water Interaction During Runoff Events in Maple Creek, Nebraska. American Institute of Hydrology Annual Conference: Integrated Water Resources Management, Alexis Park Resort and Spa, Las Vegas, Nevada, October 17-24, 2004.
215. Capel, P. D., M.J. Brayton, W.W. Stone, and **J.R. Vogel**. "Temporal Patterns of Herbicide Concentrations in Three, First-order, Agricultural Streams." Great Lakes Need Great Watersheds, 47th Annual International Association for Great Lakes Research Annual Conference, Waterloo, Ontario, Canada, May 24-28, 2004.
216. **Vogel, J.R.**, 2004. Maple Creek Watershed National Water Quality Assessment Program. Nebraska Independent Crop Consultant Association Spring Meeting, March 9-10, 2004.
217. **Vogel, J.R.**, L.B. Barber, T.B. Coplen, I.M. Verstraeten, T.F. Speth, and J.G. Obrist, 2003. Ethylenediaminetetraacetic Acid (EDTA) Occurrence and Removal through Riverbank Filtration in the Platte River, Nebraska. Second International Riverbank Filtration Conference, Cincinnati, Ohio, September 16-19, 2003.
218. **Vogel, J.R.**, 2003. Indicators for Monitoring *Cryptosporidium* and *Giardia* During Bank Filtration, Platte River, Nebraska. 2003 ASAE International Conference, Las Vegas, Nevada, July 27-30, 2003.
219. **Vogel, J.R.**, 2003. Bank Filtration Studies at the City of Lincoln, Nebraska Wellfield. Kompetenz-Zentrum Wasser Workshop on Bank Filtration, Wansee Forum, Berlin, Germany, June 10-11, 2003. (*invited*)
220. **Vogel, J.R.**, 2003. Pharmaceutical Removal by Bank Filtration in the Platte River, USA. Kompetenz-Zentrum Wasser Workshop on Bank Filtration, Wansee Forum, Berlin,

- Germany, June 10-11, 2003. (*invited presentation, also presented to the Graduate Seminar at the Technical University of Berlin*)
221. **Vogel, J.R.**, I.M. Verstraeten, Eugene Rice, Stephanie Harris, and J.G. Obrist, 2003. Bank Filtration of Waterborne Pathogens, Platte River, Nebraska. National conference on USGS Health-Related Research, Natural Science and Public Health: A prescription for a Better Environment, USGS National Center Auditorium, Reston, Virginia, April 1-3, 2003.
 222. **Vogel, J.R.**, I.M. Verstraeten, M.T. Meyer, Joseph Skopp, T.F. Speth, and J.G. Obrist, 2003. Sources, temporal variations, and fate and transport of selected endocrine disrupting compounds and pharmaceuticals, Nebraska, USA. National Groundwater Association, 2003, 3rd International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water, Minneapolis, Minnesota, March 19-21, 2003.
 223. **Vogel, J.R.**, and I.M. Verstraeten, 2002. Sources and Presence of Endocrine Disrupting Compounds (EDCs) and Pharmaceuticals in Nebraska Surface Water – A Case Study, Fall Conference of Nebraska Section, American Water Works Association Annual Meeting, Engineering Treatment Technologies, Holiday Inn, Kearney, Nebraska, November 6-8, 2002.
 224. **Vogel, J.R.**, B.J. Barfield, and J.C. Hayes, 2001. A Hydrologic Model of Bioretention Cells for Controlling Runoff. Proceedings of the 2001 American Institute of Hydrology Fall Meeting, Minneapolis, Minnesota, October 15-17, 2001. * *Outstanding Student Paper Award*
 225. **Vogel, J.R.**, and G.O. Brown, 2001. The Scale Disparity Factor and Inherent Range in Geologic Data. Proceedings of the 2001 ASAE International Meeting, Sacramento, California, July 29-August 1, 2001. Paper #012245, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.
 226. Brown, G.O. and **J.R. Vogel**, 2001. Geostatistics of Rock Core Density. Proceedings of the 2001 ASAE International Meeting, Sacramento, California, July 29-August 1, 2001. Paper #012246, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.
 227. **Vogel, J.R.**, Jurgen Garbrecht, and G.O. Brown, 2000. Spatial and temporal variability of infiltration, bulk density, and soil composition in dryland winter wheat and native warm season grass. Proceedings of the 2000 ASAE International Meeting, Milwaukee, Wisconsin, July 9-12, 2000. Paper #002141, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.
 228. **Vogel, J.R.**, G.O. Brown, J.S. Tyner, and Jurgen Garbrecht, 1999. Nitrate flux under long-term wheat fields. The 1999 Spring Meeting Supplement, EOS, Transactions, American Geophysical Union. Paper # H31B-10.
 229. **Vogel, J.R.**, J.S. Tyner, Jurgen Garbrecht and G.O. Brown, 1999. Experimental methods for indirect measurement of nitrate fluxes beneath winter wheat. Proceedings of the ASAE Annual International Meeting in Toronto, Canada, July 18-21, 1999. Paper #992127, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.
 230. Tyner, J.S., **J.R. Vogel**, Jurgen Garbrecht and G.O. Brown, 1999. Nitrate fluxes beneath winter wheat from different fertilizer-N application rates. Proceedings of the ASAE Annual International Meeting in Toronto, Canada, July 18-21, 1999. Paper #992199, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.

231. **Vogel, J.R.**, C.T. Haan, and D. Hamilton, 1998. Generated Runoff Model for Pond Systems (GRUMPS) – A Confined Animal Waste Management Tool. Proceedings of the 1998 ASAE International Meeting in Orlando, Florida. Paper #984145, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.
232. Dowd, S.E., C. Munster, M.Y. Corapcioglu, **J.R. Vogel** and S.D. Pillai. 1997. Novel laboratory approaches for delineating critical factors influencing subsurface viral transport. 97th General Meeting of the American Society for Microbiology. Session 57-Q, paper Q78.
233. **Vogel, J.R.**, C.L. Munster, M.Y. Corapcioglu, and S.D. Pillai, 1996. Large-scale Virus Transport Through a Sandy Aquifer Under a Forced Gradient. Proceedings of the Spring 1996 Meeting of the Texas Section of the American Society of Civil Engineers, Beaumont, Texas. **Outstanding Student Paper Award*
234. **Vogel, J.R.**, S. Dowd, S. Wang, C.L. Munster, S.D. Pillai, and M.Y. Corapcioglu, 1996. Field Studies of Virus Transport Through a Sandy Aquifer Under a Forced Gradient. The 1996 Spring Meeting Supplement, EOS, Transactions, American Geophysical Union. Paper #H42A-32.
235. Dowd, S.E., M.Y. Corapcioglu, C. Munster, **J.R. Vogel** and S.D. Pillai, 1996. Laboratory studies and mathematical modeling of virus transport in groundwater. 96th General Meeting of the American Society for Microbiology. Session 74, Abstract 129, paper Q123.
236. Dowd, S.E., C. Munster, M.Y. Corapcioglu, **J.R. Vogel** and S.D. Pillai, 1996. O-4-G Novel laboratory and field experiments to elucidate the fate of virus indicators in Texas aquifers. 1996 Rio Grande ASM Branch Annual Meeting.
237. C.L. Munster, B.M. Schneider, and **J.R. Vogel**, 1995. Chemical and Sediment Transport in Surface Runoff: A Field Study. Proceedings of the 1995 Spring Meeting of ASAE. Paper #952697, ASAE, 2950 Niles Road, St. Joseph, Michigan 49085 USA.

Teaching

Teaching Activities

1. Guest lectures and advising on low impact development for OU CEES 4923, Spring 2018
2. Guest lecturer on Oklahoma Water Survey and green infrastructure for OU CEES 1000, October 2017
3. Guest lecturer on rainwater harvesting for OU LARC 3894 Landscape Architecture Construction II: Sustainability Applications, February 2017
4. Guest lecturer on low impact development for OSU ENVR 5303 Issues in Sustainability, November 2016
5. Guest lecturer on rainwater harvesting for OSU HORT 3713 Urban Horticulture Production, February 2016
6. Guest lecturer on low impact development for OSU ENVR 5303 Issues in Sustainability, November 2015
7. Guest lecturer for urban runoff management tour for OSU ENVR 5020 Watershed Management, July 2015
8. Guest lecturer on rainwater harvesting for OSU HORT 3713 Urban Horticulture Production, February 2015

9. Organized and taught OSU BAE 6520 Applied Stream Stability Assessment, Fall 2014; this class was in support of the NSF REU that began in Summer 2015
10. Guest lecturer on low impact development for OSU ENVR 5303 Issues in Sustainability, October 2014
11. Guest lecturer on environmental microbiology for OSU BAE 3113 Microbial Technologies in Biosystems Engineering, March 2014
12. Guest lecturer on rainwater harvesting for OSU HORT 3713 Urban Horticulture Production, February 2014
13. Invited judge for final project for OSU Landscape Architecture Design 3, April 2012
14. Organizing and co-taught OSU BAE 5030 Special Topics on Pervious Pavements as a guest lecturer (3-hour class, 5 students), Spring 2012
15. Contributor towards development of OSU EEE 5200 Green Entrepreneurship, offered Spring 2012
16. Organized and co-taught OSU BAE 5030 Special Topics on LID Watershed Modeling (3-hour class, 8 students), Fall 2011; this class supported an extension project completed in cooperation with the City of Weatherford, Oklahoma, to help develop a Community Stormwater Development Plan
17. Invited guest lecture for Sustainable Enterprise class in the OSU Spears College of Business, December 2, 2010
18. Invited guest lecturer at University of Nebraska Water and Natural Resources seminar series, Lincoln, Nebraska, April 14, 2010.
19. Invited judge for final project in OSU LA 4424: Landscape Architecture Design 4, April 2010
20. Guest lecture for OSU BAE graduate seminar, March 2010
21. Invited judge for OSU Research Week Poster Competition, February 2010
22. Invited guest lecturer at University of Nebraska-Lincoln Civil Engineering Seminar, "Water Quality Impacts of Combined Sewer Overflows in Omaha, Nebraska," March 2008
23. Invited guest speaker to Technical University of Berlin Graduate Seminar, "Pharmaceutical Removal by Bank Filtration in the Platte River, USA", June 2003
24. Invited guest lecturer at University of Nebraska-Lincoln Civil Engineering Seminar, "Endocrine Disrupting Compounds at the City of Lincoln Wellfield," April 2003

Student Advising Activities

Current and Upcoming Graduate Students (13 total):

Name	Degree Program	Start	(Projected) Completion
<i><u>Current and Upcoming Graduate Students (11)</u></i>			
Grant Graves ¹	Ph.D. Environmental Science	June 2018	May 2023
Saliou Diallo	M.S. Environmental Engineering	August 2018	May 2020
Maxwell O'Brien	M.S. Environmental Science	June 2018	Dec 2020
Walter Chandler ²	M.S. Environmental Science	June 2018	May 2020
Tri Pham	M.S. Civil Engineering	August 2018	May 2020
Tiffany Legg ³	M.S. Environmental Studies	August 2018	May 2020
Christina Gildea	M.S. Environmental Engineering	August 2019	May 2021
Adella Kuster	M.S. Environmental Engineering	August 2019	May 2021
Jessica Shepard	M.S. Environmental Engineering	August 2019	May 2021
Emily Rhodes	M.S. Environmental Science	August 2019	May 2022
Andrea Tavera Paredes	M.S. Civil Engineering	January 2020	May 2021
Lindsay Roland	M.S. Environmental Science-HWS	January 2020	August 2021
<i><u>Current Graduate Student Committees (2)</u></i>			
Maria Alejandra Hernández-Santana	Ph.D. Environmental Science	August 2017	December 2020
Brandon Holzbauer-Schweitzer	Ph.D. Environmental Science	August 2017	May 2020

¹ Winner (1 of 3), Oklahoma Water Research Symposium Poster Competition, 2019

² Winner (1 of 3), Oklahoma Clean Lakes and Watershed Association Poster Competition, Graduate Student Division, 2019

³ Winner (1 of 3), Oklahoma Clean Lakes and Watershed Association Poster Competition, Graduate Student Division, 2019

Completed Graduate Students (29 total):

Name	Degree	Graduation	Current Employment
<i><u>Completed Graduate Students (14)</u></i>			
Ashley Stringer	M.S. ENVSC	May 2011	Compliance Manager, Oklahoma Municipal Power Authority, Edmond, Oklahoma
Karl Garbrecht ⁴	M.S. BAE	Dec 2011	Consulting Engineer, Salt Lake City, Utah
Grant Graves ^{5 6 7}	M.S. ENVSC	Dec 2013	Research and Monitoring Coordinator, Oklahoma Water Survey, University of Oklahoma, Norman, Oklahoma
Neha Bhadbhade ^{8 9 10}	Ph.D. BAE	Aug 2014	Research Associate, Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune, India
Jessica Lay ^{11 12 13 14 15 16 17}	M.S. BAE	Aug 2014	Engineer, Olsson and Associates, Kansas City, Missouri
Sheila Youngblood-Johnston	Ph.D. BAE	Dec 2015	Assistant Professor, Cameron University, Lawton, Oklahoma
D. Yvette Wiley	M.S. ENVSC	May 2016	Environmental Director, Iowa Nation, Perkins, Oklahoma
Sagar Neupane	Ph.D. BAE	Dec 2016	Engineering Intern, Stantec, Cincinnati, Ohio
Michelle Melone ^{18 19 20}	M.S. BAE	Dec 2016	Engineering Consultant, Denver, Colorado
Jahna Hill	M.S. ENVSC	Dec 2016	Stormwater Manager, City of Tahlequah, Tahlequah, Oklahoma
Keima Kamara	M.S. ENVSC	May 2017	Assistant Extension Specialist, OSU, Stillwater, Oklahoma
John McMaine ^{21 22 23}	Ph.D. BAE	Dec 2017	Assistant Professor, South Dakota State University, Brookings, South Dakota
Alex McLemore ^{24 25 26 27 28}	Ph.D. BAE	Dec 2017	Assistant Professor, Abraham Baldwin Agricultural College, Tipton, Georgia
Jennifer Salvo ²⁹	M.S. ENVEN	Dec 2019	Assistant Outreach Specialist, Oklahoma Water Survey, University of Oklahoma, Norman, Oklahoma

⁴ 1st Place, OSU Research Symposium Poster Contest, 2011

⁵ Won Competitive Graduate Research Assistantship from the Environmental Science graduate program, Jan 2012-Dec 2013

⁶ 3rd Place, OSU Research Symposium Poster Competition, 2013

⁷ 3rd Place, Oklahoma Clean Lakes and Watersheds Poster Competition, 2013

⁸ 2nd place (tie) in Oklahoma Water Research Conference Student Poster contest, 2011

⁹ 1st Place OSU Research Symposium Poster Contest, 2013

¹⁰ 1st Place, Oklahoma Clean Lakes and Watersheds Poster Competition, 2013

¹¹ National Science Foundation Graduate Fellow

¹² 2nd place (tie) in Oklahoma Water Research Conference Student Poster contest, 2011

¹³ 1st Place OSU Research Symposium Poster Contest, 2012

¹⁴ Fullbright Scholarship Winner, Sierra Leone (Aug. 2012-June 2013)

¹⁵ ASABE Pharos of Alexandria Global Learning Award, 2012

¹⁶ ASABE Robert E. Stewart Engineering-Humanities Award, 2013

¹⁷ 2nd Place (tie), Great Plains LID Research and Innovation Symposium Student Poster Contest, 2014

¹⁸ 1st Place team, American Ecological Engineering Society Student Design Competition, 2015

¹⁹ 1st Place team, Great Plains LID Student Design Competition, 2016

²⁰ 2nd Place, Great Plains LID Student Poster Competition, 2016

²¹ 1st Place team, American Ecological Engineering Society Student Design Competition, 2015

²² 1st Place team, Great Plains LID Student Design Competition, 2016

²³ Winner, Robberson Summer Research Fellowship, 2016

²⁴ 1st Place, EPA Region 6 LID/GI Poster Competition, Student Division, 2015

²⁵ Outstanding Graduate Student Oral Presentation, Oklahoma Student Water Conference, 2016

²⁶ 1st Place team, Great Plains LID Student Design Competition, 2016

²⁷ 1st Place, EPA Region 6 LID/GI Poster Competition, Student Division, 2016

²⁸ ASABE Education Aids Blue Ribbon Award, Short Publications, 2018

²⁹ Winner (1 of 3), Oklahoma Clean Lakes and Watershed Association Poster Competition, Graduate Student Division, 2019

Jason R. Vogel, Ph.D, P.E.

jason.vogel@ou.edu, (405) 325-2826

Completed Graduate Student Committees (15)

Name	Degree	Graduation	Current Employment
Sonal Patil	M.S. CIVE	Aug 2010	Environmental Engineer, ARCADIS, Houston, Texas
John Haase	M.S. ENVSC	Aug 2011	Extension Educator, Oklahoma Cooperative Extension Service, Claremore, Oklahoma
Katie Morgan-Beitz	M.S. ENVSC	Aug 2011	Landscape Technology Specialist, OSU, Stillwater, Oklahoma
Erick Iarrusso	M.S. INT AG	May 2013	Self Employed, Stillwater, Oklahoma
Adam Galadima	M.S. INT AG	May 2014	unknown
Nelly Ruiz	M.S. BAE	Aug 2015	Ph.D. student, OSU, Stillwater, Oklahoma
Molly Shivers	M.S. ENVSC	May 2016	Hydrologist, USGS, Oklahoma City, Oklahoma
Kari Bigham ³⁰	M.S. BAE KSU	Aug 2016	Research Associate, BAE, KSU, Manhattan, Kansas
Sarah Hileman	M.S. INT BIO	Dec 2016	Ph.D. student, OSU, Stillwater, Oklahoma
Saroj Kandel ³¹ ³²	Ph.D. BAE	Dec 2016	Environmental Engineer, Parsons Engineering, Chicago, Illinois
Curt Dikes ³³	M.S. ENVSC	Dec 2017	Scientist, Oklahoma Water Resources Board, Oklahoma City, Oklahoma
Derrick Nguyen	M.S. ENV ENG	May 2018	Student, OU Health Sciences Center, Oklahoma City, Oklahoma
Eric Sabin	M.S. L ARCH	May 2018	unknown, Denver, Colorado
Abigail Parnell	M.S. BAE	Aug 2018	Engineer, Natural Resources Conservation Commission, Perry, Oklahoma
Jorge Celis Rodriguez	M.S. GEST	Dec 2019	Grad Student, Civil Engineering, University of Oklahoma, Norman, Oklahoma

³⁰ Outstanding Graduate Student Poster Presentation, 2015 OSU Student Water Conference

³¹ 2nd Place tie, Great Plains LID Research and Innovation Symposium Student Poster Contest, 2014

³² Winner, Oklahoma Water Research Symposium Student Poster Contest, 2015

³³ Winner (Graduate Student Division), Oklahoma Water Research Symposium Poster Contest, 2015

Undergraduate Mentoring Projects (122 students in 47 projects):

Class or Activity	Topic	Semester
BAE 4023: Senior Engineering Design (4-person team)	Scenic Solutions Wetland Design	Spring 2010
BAE 1012: Intro to Biosystems Engr. (4-person team)	Precast Pervious Concrete Pavers	Fall 2010
BAE 1012: Intro to Biosystems Engr. (4-person team)	Lightweight Green Roof Media	Fall 2010
BAE 3023: Instruments and Controls (3-person team)	Automated Pervious Pavement Clog Detection	Spring 2011
BAE 1012: Intro to Biosystems Engr. (3-person team)	Rainwater Harvesting Cattle Shade Structure	Fall 2011
BAE 1012: Intro to Biosystems Engr. (4-person team)	Flocculant Efficiency Testing	Fall 2011
Wentz Project (Lisenbee)	Plant Growth Testing in Lightweight Green Roof Media	Fall 2011, Spring 2012
Creativity, Innovation, and Entrepreneurship (CIE) Scholars (3-person team)	Marketing Plan for a Lightweight Green Roof Media Company	Fall 2011
ENVR 4813: Environmental Science Capstone Project (3-person team)	Turbidity assessment for Oklahoma soils, in conjunction with Oklahoma Department of Transportation	Fall 2011, Spring 2012
Honors thesis (Lisenbee)	Plant Growth Testing in Lightweight Green Roof Media	Spring 2012
OSU Marketing Plan Competition (Holbrook)	Marketing Plan for Precast Pervious Concrete Pavers	Summer 2011-Spring 2012
BAE 4023: Senior Engineering Design (4-person team)	Design of a Green Parking Lot and LID Demonstration for the Oklahoma Department of Environmental Quality	Fall 2012, Spring 2013
BAE 1012: Intro to Biosystems Engr. (3-person team)	Pervious Concrete Investigations	Fall 2012
US EPA Campus Rainworks Challenge (6-person team)	Green Infrastructure Design for Stormwater Management and Ecosystem Services Restoration around the OSU Softball Complex	Fall 2012
Niblack Scholar (P. Storm)	Research at the OSU Low Impact Development Research Laboratory	Fall 2012-Summer 2013
CASNR Research Scholars (Alachkar)	Impact of Drained Freeze-Thaw Cycles on Pervious Concrete Strength	Spring 2013
CASNR Research Scholars (Hickman)	Runoff Sediment Concentration Impact on Flocculation Efficiency	Spring 2013
CASNR Research Scholars (P. Storm)	Water Quality of Rainwater Harvested in a Sand Cistern	Spring-Summer 2013
Creativity, Innovation, and Entrepreneurship (CIE) Scholars (3-person team)	Updated Marketing Plan for a Lightweight Green Roof Media Company	Fall 2013
Independent Research Study (Hickman) ³⁴ ³⁵ ³⁶	Comparison of Water Quality Treatment Efficiency by Bioretention with and without Fly Ash Amended Media	Summer 2014-Spring 2015

³⁴ 1st Place, Great Plains LID Research and Innovation Symposium Student Poster Contest, 2014

³⁵ ASABE Robert E. Stewart Engineering-Humanities Award, 2015

³⁶ 3rd Place, ASABE Undergraduate Student Poster Competition, 2015

Undergraduate Mentoring Projects (122 students in 47 projects) (continued):

Hosted Visiting Scholar (5th-year student) from Montpelier Polytech in France (Montefiore)	Assessment of Pervious Concrete Clogging and Cleaning	Fall 2014, Spring 2015
BAE 4023: Senior Engineering Design (3-person team)	Urban Stormwater Treatment System for Nutrients, Turbidity, and Bacteria in conjunction with the Oklahoma Department of Environmental Quality	Fall 2014, Spring 2015
NSF Research Experiences for Undergraduates Program (Muell, ISU)	Stability Assessment of the Cow Creek Stream Restoration Project	Summer 2015
CASNR Research Scholars (Jones)	Investigation of the Relationship between Color and DOC in Runoff	Fall 2015, Spring 2016
CASNR Research Scholars (Bradley)	Investigation of Layering Effects on Bioretention Media Performance	Fall 2015, Spring 2016
NSF Research Experiences for Undergraduates Program (Kinsey, Auburn Univ.)	Characterization of the Cow Creek Riparian Wetland	Summer 2016
BAE 4023: Senior Engineering Design (4-person team)	Solutions for Parkview Estates Stormwater Problems	Fall 2016, Spring 2017
BAE 4023: Senior Engineering Design (4-person team)	Landfill Erosion Control Using Compost	Fall 2016, Spring 2017
Freshman Research Scholars (Spillane and Alder)	Investigation of Pesticide Removal from Stormwater Using Oklahoma-Sourced Biochar	Fall 2016, Spring 2017
HRAP Honors Program (Marinaro)	Modeling Removal of Phosphorus by Aggregated Fly Ash	Fall 2017
HRAP Honors Program (Marinaro) ³⁷	Effect of Amendments on Phosphorus and Metals Removal from Stormwater by Pervious Concrete Aggregate	Spring 2018
Independent Research Project (Kuster)	Impact of Nutrient and Sediment Concentration on Leaching from Compost Filter Socks	Spring 2018, Fall 2018, Spring 2019
CEES : Senior Capstone (23 Students)	LID Design for the City of Norman Municipal Complex	Spring 2018
Don Shirley Engineering Award (8 Students)	POND Program Implementation at the OU Duck Pond	Summer 2018, Fall 2018, Spring 2019
Independent Research Project (Shepard) ³⁸	Impact of Nutrient and Sediment Concentration on Leaching from Compost Filter Socks (Phase II)	Summer 2018, Fall 2018, Spring 2019
Independent Research Project (Grillot)	Development of an Online History of Oklahoma Water Database	Summer 2018
Independent Research Project (Vaughn and Rhodes)	Indicator Bacteria in Oklahoma Streams	Summer 2018, Fall 2018
Environmental Sustainability Capstone (Walker)	Effect of Oil and Gas on Groundwater	Fall 2018
Environmental Studies Undergrad Research (Sykora)	Quantifying Surface Storage in Small Reservoirs in Southeast Oklahoma	Fall 2018

³⁷ 3rd Place, Oklahoma Clean Lakes and Watersheds Student Poster Contest, Undergraduate Division, 2018

³⁸ Winner, Oklahoma Governor's Water Conference Poster Contest, 2018

Undergraduate Mentoring Projects (122 students in 47 projects) (continued):

Independent Research Project (Vaughn and White) ³⁹	Development of a LID Inspection and Maintenance Manual	Summer 2018, Fall 2018, Spring 2019
Environmental Sustainability Capstone (Vaughn)	Assessing the Viability of a Permanent Hazardous Waste Collection Facility in Norman	Spring 2019
Environmental Studies Undergrad Research (Wade)	Testing of Midwest City Compost in Compost Filter Socks	Spring 2019
Independent Research (Ha, Totten, Kroboth)	City of Anadarko Water System Mapping	Summer 2019
Independent Research (Sanders, Gildea) ⁴⁰	Indicator Bacteria Occurrence in Southwest Oklahoma Streams	Summer 2019
UROP Research (Buchanan)	Assessing the Relationship between Area and Volume for Small Ponds in Southeast Oklahoma	Summer, Fall 2019
HERE Research (Mani)	Mesocosm Testing for Determining Survivability of <i>E. coli</i> in Stream Sediment	Spring 2020
HERE Research (Starks, Martin)	Development of a Pervious Concrete Cleaning Attachment Device	Spring 2020

Professional and Community Memberships and Honors

American Society of Agricultural and Biological Engineering (1993-present)

- ASABE Standards Development Award for “ANSI/ASAE S422.1 DEC2015, Mapping Symbols and Nomenclature for Erosion and Sediment Control Plans for Land Disturbing Activities” (2016)
- SW-25 Streams, Reservoirs, and Wetlands (2009-present)
 - Chair (2016-present)
 - Vice Chair (2015-16)
- BE-22 Ecological Engineering Committee (2007-present)
 - Chair (2011)
 - Vice chair (2010)
 - Secretary (2009)
- ED-208 Extension (2012-2017)
 - Electronic Delivery judging committee chair (2016, 2017)
 - Chair (2015)
 - Vice Chair (2014)
 - Secretary (2013)
 - Website category judging committee chair (2013)
- Blue Ribbon Extension Award, electronic delivery category (2015)
- Blue Ribbon Extension Award, electronic delivery category (2014)
- Blue Ribbon Extension Award, innovative extension methods category (2012)
- Blue Ribbon Extension Award, web site category (2011)
- Associate Editor, Soil and Water Division (2008-2011)
 - *Transactions of the ASABE* and *Applied Engineering in Agriculture*

³⁹ Winner (1 of 3), Oklahoma Clean Lakes and Watersheds Poster Competition, Undergraduate division, 2019

⁴⁰ Winner (1 of 3), Oklahoma Governors Water Conference and Research Symposium Poster Competition (Sanders), 2019

- Nebraska Section Secretary/Treasurer (2008-2009)
- Nebraska Section Publications Chair (2007-2008)
- SW-21 Hydrology Committee (2001-present)
- SW-22 Erosion Control Committee (2009-present)
 - SW-224 Pollution by Sediment Committee Chair (2012-13)
 - SW-224 Pollution by Sediment Committee Vice Chair (2011)
- SW-05 Publications Review Committee (2008-2010)
- Oklahoma Section Local Arrangements Chair (1998-1999)

American Ecological Engineering Society (2011-2016)

- Student Design Competition Organizer (2015)

American Society of Civil Engineers (1995-1997, 2012-present)

- Low Impact Development/Green Stormwater Infrastructure Committee (2012-present)
- 2020 International LID Conference Planning Committee (2019-present)
- Outstanding Student Paper Award, Spring 1996 meeting, Texas Section, Beaumont, Texas, for “Large-scale Virus Transport Through a Sandy Aquifer Under a Forced Gradient.”

Disaster Resilience Network, Resilient House Committee (2013-present)

- Invited member

City of Stillwater Drainage Appeals Board (2011-2015)

- Appointed member

Green Country Low Impact Development Design Competition

- Executive Director (2013-2014)

Agronomy Society of America

- Extension Education Materials award, publications under 16 pages category (2012)

Groundwater Foundation

- Green Sites Program Advisory Committee (2007-2009)
- Pharmaceuticals in the Environment Education Committee (2006-2009)

Nebraska Surface Water Monitoring Council (2006-2009)

- Chairman (2007-2009)

Mortar Board National Honor Society

- Oklahoma State University
 - Advisor (1998-2002)
 - National Council member (2001-2003)
- University of Nebraska-Lincoln
 - Member and President (1993-94)
 - Advisor (2002-2008)
 - National Advisor of the Year (2007)

Alpha Gamma Sigma Fraternity Alumni Association

- National Executive Council Representative (2010-2012)
- Nebraska Chapter President (2008-2009)
- Nebraska Alumni of the Year (2009)
- Nebraska Chapter Secretary (2007-2008)

National Ground Water Association (2003, 2004, 2006, 2007)

- Moderator, multiple sessions, 4th International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water (2006)

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Alpha Epsilon Agricultural Engineering Honorary (selected 1993)

- President, Oklahoma State University (1997-98)
- Outstanding National Alpha Epsilon Chapter (1998)

American Institute of Hydrology (2001)

- Outstanding Student Paper Award, American Institute of Hydrology Fall Meeting, Minneapolis, Minnesota, for “A Hydrologic Model of Bioretention Cells for Controlling Runoff.”(2001)

Gamma Sigma Delta Agricultural Honorary (selected 1999)

University of Nebraska Homecoming Royalty (1994)