**Joanna Crowe Curran (some publications are in my maiden name, Crowe)**
Department of Civil and Environmental Engineering
University of Virginia Thornton Hall, Rm B228
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curran@virginia.edu

## Education

**Ph.D. The Johns Hopkins University – Baltimore, Maryland 2002**
Department of Geography and Environmental Engineering

- Dissertation Title: An experimental study of the step pool bed form
- Dissertation Advisor: Peter R. Wilcock

**M.A. The University of Texas at Austin – Austin, Texas 1994**
Department of Geological Sciences

- Thesis Title: Detailed hydrogeologic maps of the Comal and San Marcos Rivers for endangered species habitat definition, Texas
- Thesis Advisor: John M. Sharp, Jr.

**B.A. The Johns Hopkins University – Baltimore, Maryland 1992**
Environmental Earth Sciences; a combination of the Departments of Earth and Planetary Sciences and Geography and Environmental Engineering

## Teaching and Research Experience

| | | |
|---|---|---|
| Assistant Professor | University of Virginia<br>Department of Civil and Environmental Engineering | 2007 - present |
| Assistant Professor | Texas State University<br>Department of Geography | 2002 - 2007 |
| Graduate Fellow | The Johns Hopkins University<br>Department of Geography and Environmental Engineering | 1999 – 2002 |
| Teaching Assistant | The Johns Hopkins University<br>Department of Geography and Environmental Engineering | 1999 |
| Research Assistant | The Johns Hopkins University<br>Department of Geography and Environmental Engineering | 1997 – 2000 |
| Teaching Assistant | The University of Texas at Austin,<br>Department of Geological Sciences | 1992 - 1993 |
| Research Assistant | The Johns Hopkins University<br>Department of Geography and Environmental Engineering | 1991 – 1992 |

## Professional Experience

**Engineer Century Engineering 1999**
Hydrological analyses for river rehabilitation planning

- Analyzed possible geomorphic scenarios using HEC-RAS software
- Designed step-pool sequences for river rehabilitation
- Drainage area determination, swale design, and storm water management pond design US 113 project

**Hydrologist** **U.S. Fish and Wildlife Service** **1993 – 1996**

Hydrologic management of research on National Wildlife Refuges in Arizona.

- Assessments included determining water budgets and water use plans, often in support of water rights on federal lands.
- Designed a study of the affects of the Colorado River stage on surrounding wetlands, attempting to elucidate the groundwater connection.
- Participated in the Bill Williams River Technical Committee
- Author of the instream flow report on Arivaca Creek in Buenos Aries National Wildlife Refuge.

**Recent Publications (all are refereed; some are in my maiden name, Crowe)**


Curran, J.C., 2010. Mobility of Large Woody Debris (LWD) jams in a low gradient channel. *Geomorphology*. **116**: 320-329.

Keen-Zebert, A. and J.C. Curran, 2009. Regional and local controls on the spatial distribution of bedrock reaches in the Upper Guadalupe River, Texas. *Geomorphology*. **112**: 295-305.

Curran, J.C., 2008. Modeling future flows in the Blanco watershed under various development and rainfall scenarios. *Texas Journal of Science*. **59**(3): 209-233.

Curran, J. C., 2007. Step-pool formation models and associated step spacing. *Earth Surface Processes and Landforms*. **32** (11): 1611-1627.

Curran, J. C., 2007. The decrease in shear stress and increase in transport rates subsequent to an increase in sand supply to a gravel-bed channel. *Sedimentary Geology*. **202**: 572-580.

Curran, J. C. and P. R. Wilcock, 2006. Reply to comment by Luis A. Giménez-Curto and Miguel A. Corniero Lera on "Characteristic dimensions of the step-pool bed configuration: An experimental study" *Water Resources Research*, **42**, W03602, doi:10.1029/2005WR004585.

Curran, J.C. and P.R. Wilcock, 2005. Characteristic dimensions of the step-pool bed configuration: An experimental study, *Water Resources Research*, **41**, W02030, doi://10.1029/2004WR003568.

Curran, J. C. and P. R. Wilcock, 2005. The effect of sand supply on transport rates in a gravel-bed channel. *ASCE Journal of Hydraulic Engineering.* **131** (11): 961-968. doi: 10.1061/(ASCE)0733-9429(2005)131:11(961).

Curran, J.C., Bryan, D., and Jennings, M., 2005. A comparison of modeled flood characteristics to measurements of the 2002 flood on the Guadalupe River, Texas. *Physical Geography* **26** (5): 396-408.

Curran, J.C., 2004. Sediment Routing. *in* Goudie, A. (Ed.) Encyclopedia of Geomorphology. Routledge. p 1156.

Wilcock, P.R., and J.C. Crowe, 2003. Surface-based transport model for mixed-size sediment, *ASCE Journal of Hydraulic Engineering*, **129** (2): 120-128.

Wilcock, P.R., Kenworthy, S.T. and J. C. Crowe, 2001. Experimental study of the transport of mixed sand and gravel, *Water Resources Research*, **37** (12): 3349-3358.

Crowe, J.C. and Wilcock, P.R. Flume experiments investigating the effects of sand in transport on a gravel bed. *In* Nolan, T. and Thorne, C. (eds) Gravel Bed Rivers 2000 CD-ROM. A Special Publication of the New Zealand Hydrological Society. Published in 2001.

Crowe, J.C., and Sharp, J.M., Jr. 1996. Hydrogeological delineation of habitats for endangered species: the Comal Springs/River system. *Environmental Geology*, **30** (1/2): 17-28.

Crowe, J. and Sharp, J.M., Jr. 1994. A hydrogeologic description of the Comal and San Marcos Rivers in Edwards Aquifer: The Barton and San Marcos Springs area *In* Guidebook for the Edwards Aquifer Fieldtrip. Published by the American Institute of Hydrology for the AIH 1994 Annual Conference. San Antonio, Texas. 91 pages.

**Reports and Book Reviews**

Engel, F.L. and J.C. Curran, 2008. Geomorphic Classification of the Lower San Antonio River, Texas. Report for Project 0604830637. Texas Water Development Board In-Stream Flow Program. 49p.

Cawthon, T. and J.C. Curran, 2008. Channel Change on the San Antonio River, Texas. Report for Project 0604830638. Texas Water Development Board In-Stream Flow Program. 52p.

Curran, J.C., 2007. Book review of Geomorphology for Engineers edited by Fookes, P.G., Lee, E.M., and G. Milligan, *Geomorphology*. **86**(3-4): 537-538.

Curran, J.C., 2006. Book review of Erosion Prediction in Ungauged Basins (PUBs): Integrating Methods and Techniques. IAHS Publication no. 278. Progress in Physical Geography, **30** (1): 136-137.

Curran, J.C., 2004. Book review of The Rhine-Meuse system in a new light: optically stimulated luminescence dating and its application to fluvial deposits by Jakob Wallinga, *Geomorphology*, **65** (3-4): 337-338.

**Conference Presentations and Abstracts (some are in my maiden name, Crowe):**

Curran, J.C., Mobility of Large Woody Debris (LWD) Jams. 40th Annual Binghamton Geomorphology Symposium. Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops. Blacksburg, VA. October 2-4, 2009.

Arthur, R.S., Abshire, K.E., Downey, M.J., Curran, J.C., Culver, T.B., and J.S. Herman, Stormwater management: discharge, turbidity, and nutrient concentrations during storm events. 2009 Virginia Water Research Conference: Water Resources in Changing Climates. Richmond, VA. October 15-16, 2009.

Cannatelli, K. and J.C. Curran, The Processes Surrounding Channel Evolution following a Partial Dam Removal on the Coastal Plain of Virginia. 33rd IAHR Congress: Water Engineering for a Sustainable Environment. International Association of Hydraulic Engineering and Research (IAHR). Vancouver, BC.: 3062-3069. August 9-14, 2009.

Curran, J.C. and M.W. Ables, Measuring mixed bedload transport with an Acoustic Doppler Current Profiler. 33rd IAHR Congress: Water Engineering for a Sustainable Environment. International Association of Hydraulic Engineering and Research (IAHR). Vancouver, BC.: 1348-1355. August 9-14, 2009.

Cannatelli, K. and J.C. Curran, Using Morphological Models to Improve Current Land Development Practices Surrounding Dam Removal. Presented at Engineering Sustainability 2009: Innovations that Span Boundaries. Pittsburgh, PA. April 19-21, 2009.

Powers, D.B. and J.C. Curran, Stormwater BMPs and Managing Phosphorus Loads from Stream Banks in Virginia. Presented at the American Water Resources Association 2008 Annual Water Resources Conference. New Orleans, LA. November 17-20, 2008.

Curran, J.C., Separating Natural and Anthropogenically Induced Channel Change of the San Antonio River, Texas. Poster presented at the meeting of the American Ecological Engineering Society, Beyond Wetlands: Engineering the Landscape. Blacksburg, VA. June 11-14, 2008.

Curran, J.C., A Case Study of Channel Change during Urbanization: the San Antonio River from 1830-2004. Presented at the ASCE Environmental and Water Resources Institute World Environmental and Water Resources Congress. Honolulu, HI. May 12-16, 2008.

Humberson, D. and J.C. Curran, Application of the Cellular Automaton Evolutionary Slope and River (CAESAR) Model to a Highly Erosive Reach of the Colorado River, Austin, Texas. Presented at the*38th International Binghamton Geomorphology Symposium: Complexity in Geomorphology.* Durham, N.C. October 5-7, 2007.

Curran, J.C., Understanding the implications of a forced river. Invited presentation at *Fluvial Geomorphology of Texas Rivers* Seminar, sponsored by the Texas Water Development Board. Austin, TX. June 8, 2007.

Engel, F. and J.C. Curran, 2006, Aggradation in response to extreme flooding and watershed management, Eos Transactions AGU, 87(52), Fall Meeting Supplement, Abstract H51G-0571.

Keen-Zebert, A. and J.C. Curran, 2006, Convex bar formation in an alluvial-bedrock stream channel, Eos Transactions AGU, 87(52), Fall Meeting Supplement, Abstract H51G-0580.

Pritchard, M.K. and J.C. Curran, 2006, The Influence of Sand Input on an Armored Gravel Bed River, Eos Transactions AGU, 87(52), Fall Meeting Supplement, Abstract H51G-0857.

Engel, F. and J.C. Curran, Effects of Flood Management Practices on Channel Morphology in the San Marcos River, Texas. Presented at the*37th International Binghamton Geomorphology Symposium: The Human Role in Changing Fluvial Systems.* Columbia, S.C. October 20-22, 2006.

Keen-Zebert, A. and J.C. Curran, Alluvial-bedrock channel boundary forcing and human built forcing agents in the Guadalupe River. Presented at the*37th International Binghamton Geomorphology Symposium: The Human Role in Changing Fluvial Systems.* Columbia, S.C. October 20-22, 2006.

Simmang, C. and J.C. Curran, Morphological changes attributed to gravel mining along the Colorado River, Texas. Presented at the*37th International Binghamton Geomorphology Symposium: The Human Role in Changing Fluvial Systems.* Columbia, S.C. October 20-22, 2006.

Keen-Zebert, A. and J.C. Curran, Bar spacing in alluvial and bedrock reaches of the Guadalupe River, a mixed morphology or hybrid river in central Texas. Presented at the *2006 Geological Society of America Meeting*. Philadelphia, PA. October 22-26, 2006.

Engel, F. and J.C. Curran, Channel bed changes in response to control structures on the San Marcos River, Texas. Presented at the *Texas River and Reservoir Management Symposium*. Austin, TX. May, 2006.

Keen-Zebert, A. and J.C. Curran, Spatial variation of channel reach type and gravel deposition. Presented at the *Annual Meeting of the Association of American Geographers*. Chicago, IL. March, 2006.

Curran, J.C., Implications of weir location on channel morphology. Invited presentation at Texas Fluvial Environment Workshop, sponsored by the Texas Water Development Board. Austin, TX. February 22, 2006.

Curran, J.C., 2005, Flow resistance from self-formed step-pool bedforms. Eos Transactions AGU, 86(52), Fall Meeting Supplement, Abstract H13E-1365.

Curran, J.C., and P.R. Wilcock, Formation and configuration of the step-pool bed form: an experimental study. Poster presentation at the *6$^{th}$ International Gravel-Bed Rivers Workshop and Conference*. Leinz, Austria. September, 2005.

Keen-Zebert, A. and J.C. Curran, Spatial and temporal variation of sediment transport capacity in mixed alluvial-bedrock rivers. Poster presentation at the *6th International Gravel-Bed Rivers Workshop and Conference*. Leinz, Austria. September, 2005.

Thompson, M. and J.C. Curran, The influence of land use/ land cover of riparian environments on channel change in mixed alluvial bedrock rivers: a comparative study between the Medina and Guadalupe Rivers. Presented at the *Annual Meeting of the Association of American Geographers*. Denver, CO. April, 2005.

Curran, J.C., The connection between the step-pool formation mechanism and spacing. Presented at the *Annual Meeting of the Association of American Geographers*. Denver, CO. April, 2005.

Keen-Zebert, A. and J.C. Curran, The spatial distribution of sediment in two mixed alluvial-bedrock rivers in central Texas. Annual Meeting *of the Association of American Geographers*. Denver, CO. April, 2005.

Curran, J.C., Effects of the introduction of sand to a gravel-bed channel: a flume study. Presented at "*From Sediment Size to Particle Dynamics" Conference and Workshop*. Delmenhorst, Germany. April, 2004

Curran, J.C., History of grain size identification in field and flume research. Presented at the *100th Annual Meeting of the Association of American Geographers*. Philadelphia, PA. March, 2004.

Bryan, D. and J.C. Curran, SWAT modeling of the Blanco River basin. Presented at the *100th Annual Meeting of the Association of American Geographers*. Philadelphia, PA. March, 2004.

Anderson, S. and J.C. Curran, The development of a sediment counting model using image processing techniques. Presented at the *100th Annual Meeting of the Association of American Geographers*. Philadelphia, PA. March, 2004.

Jennings, M., Bryan, D., and J.C. Curran, NFF3.2 – A USGS tool for flood planning and design. Presented at *Living in Flood Alley: Lessons to Learn*, Texas State University. San Marcos, Texas. September, 2003.

Crowe, J.C. and P.R. Wilcock, 2002, An experimental study of the step pool bed form. Eos Transactions AGU, 83(47), Fall Meeting Supplement, Abstract H21G-01.

Crowe, J.C., The formation of the step-pool bedform. Presented at the *2002 Annual Meeting, Southwestern Division of the Association of American Geographers.* Laredo, TX. November 7-9, 2002.

Crowe, J.C. and C. Sawyer, Canyon lake dam flood of July, 2002. Poster presentation at the *2002 Annual Binghamton International Geomorphology Symposium: Dams and Geomorphology*, Bloomsburg, Indiana. October 11-13, 2002.

Crowe, J.C., An experimental study of the step pool bed configuration. Presented at the *2001 Annual Binghamton International Geomorphology Symposium: Mountain Rivers.* Chapel Hill, N.C. October 19-21, 2001.

Wilcock, P.R., and Crowe, J.C., A surface-based transport model for sand and gravel. Presented at the *Mixed-Sediment Workshop*. HR Wallingford. May 14-15, 2001.

Crowe, J.C., Flume experiments investigating the effects of sand in transport on a gravel bed. Poster presentation at the *5th International Gravel-Bed Rivers Workshop and Conference.* Christchurch, New Zealand. August 29-September 2, 2000.

Crowe, J.C., A review of steep channel design methodologies. Presented at the *2000 Spring American Geophysical Union Meeting.* May 30 – June 3, 2000. Washington, D.C.

Crowe, J. and J.M. Sharp, Jr., Detailed hydrogeologic mapping for delineation and protection of endangered species habitats. Poster presentation at the *Annual Geological Society of America Meeting*. October 25-28, 1993. Boston, MA.

Crowe, J. and J.M. Sharp, Jr., Detailed mapping of endangered species habitats to aid in management of the Edwards Aquifer, Texas. Poster presentation at the *36th Annual Meeting of the Association of Engineering Geologists*. October 9-16, 1993.

**Honors**

Nominated by the Class of 2010 Trustees to participate in Fourth Year Casino Night at UVA

Nominated for the 2006 Texas State University Presidential Award for Excellence in Service at the Assistant Professor/Instructor/Lecturer level.

Nominated for the 2005 Subaru Outstanding Woman in Science Award, given by the Geological Society of America.

Recipient of the 2003 award for Supporting Women in Geography (SWIG) at Texas State University.

United States Environmental Protection Agency, S.T.A.R. Graduate Fellowship recipient (1999-2002)

United States Fish and Wildlife Service Region 2, On the spot award, 1996

United States Fish and Wildlife Service Region 2, Special achievement award, 1995

**Grants (received)**

NSF CBET-Environmental Sustainability, $203,062. “Rethinking Dredging: Phasing Small Dam Deconstruction to Allow Sediment Releases without Harming Downstream Ecosystems” Joanna C. Curran. 2010-2012.

NSF EAR-Hydrological Sciences, $233,859. “An Investigation of the Bed Armoring Process and its Implications for Channel Bed Stability” Joanna C. Curran. 2010-2010.

Jefferson Public Citizens Grant, $29,121. “Sustainable Stormwater Management: Validating Water Quality and Quantity” Teresa Culver, Janet Herman, and Joanna C. Curran. 2010-2011.

NSF EAR-Hydrological Sciences, $29,684. "Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops - 40th Annual Binghamton Geomorphology Symposium; October 2009; Blacksburg, VA" William C. Hession, Joanna C. Curran, Lynn M. Resler, Theresa M. Wynn. 2009-2010.

Texas Water Development Board, $35,000. “Sediment Transport Modeling of Reach Scale Geomorphic Processes” J. K. Haschenburger and J.C. Curran. 2009-2010.

Boston Society of Architects, $10,000. “Sustainable stormwater management: Validating quality and quantity” T. Culver, J. Herman, J.C. Curran, J. Stitler. 01/01/08 – 12/31/08.

The Nature Conservancy and the Texas Rivers Institute, $110,000. “Integrated Assessment of the Pedernales River Watershed” J. C. Curran, T. Bonner, and V. Lopes. 2007 – 2008.

NSF Doctoral Dissertation Research Improvement Award, $11,500. “Spatial and temporal variation of sediment transport capacity and channel reach type in two mixed alluvial-bedrock rivers in central Texas.” A. Keen-Zebert and J.C. Curran. 2005-2007.

Texas Water Development Board, $25,000. “Field-Based Mapping in support of a Geomorphic Analysis of the Lower San Antonio River Subbasin” J.C. Curran. 2006-2007.

Texas Water Development Board, $25,000. “GIS-Based Geomorphic Analysis of the Lower San Antonio River Subbasin” J.C. Curran. 2006-2007.

Texas Advanced Technology Program, $87,895. "Model analysis of the effects of small dams on the Guadalupe River." J.C. Curran. 2004-2006.
Texas State University Faculty Enhancement Grant, $15,800. "Comparison of ArcHydro and SWAT models used in watershed analysis." D. Bryan and J. C. Curran. 2003-2004.
The Nature Conservancy and the International Institute for Sustainable Water Resources, $305,000. "Determination of critical habitat for immediate protection by The Nature Conservancy along the Blanco River." M. Jennings, J.C. Curran, A. Sansom. 2003-2006.
Texas State University Faculty Enhancement Grant, $8,000. "Characterization and modeling of sediment transport through the Guadalupe River." J. C. Curran. 2002-2003.
U.S. EPA STAR Graduate Fellowship, $102,000. "A determination of the physical controls over the step-pool bedform." J.C. Crowe. 1999-2002.

**Invited Talks**

40th Annual Binghamton Geomorphology Symposium. Geomorphology and Vegetation: Interactions, Dependencies, and Feedback Loops. October 2009.
VCU Rice Center for Environmental Life Sciences, Research Symposium, May 2009.
University of Virginia, Landscape Architecture. September, 2007.
Texas Water Development Board, Geomorphology of Texas Rivers. June, 2007.
Texas Water Development Board, In-Stream Flow Workshop for Texas. February, 2006.
Florida State University, Department of Geological Sciences, November, 2004.
Vanderbilt University, Dept. of Earth and Environmental Sciences, September, 2004.
The University of Texas at Austin, Department of Geological Sciences, February, 2003.

**Reviews**

Manuscript reviewer for *Water Resources Research*
Manuscript reviewer for *Environmental Science & Technology*
Manuscript reviewer for *Journal of Hydraulic Research*
Manuscript reviewer for *Journal of Hydrology*
Manuscript reviewer for *Journal of Geophysical Research - Earth Surface Processes*
Manuscript reviewer for *River Research and Applications*
Manuscript reviewer for *Environmental Engineering and Geoscience*
Manuscript reviewer for *Lakes and Reservoirs: Research and Management*
Manuscript reviewer for *Geomorphology*
Manuscript reviewer for *Sedimentary Geology*
Manuscript reviewer for *Hydrological Processes*
Book reviewer for *Geomorphology*
Book reviewer for *Physical Geography*
Proposal reviewer for NSF: Hydrologic Sciences
Proposal reviewer and Panelist for NSF: Fluid Mechanics
Proposal reviewer for NSF: BCS Geography Regional Sciences
Proposal reviewer for NSF: Hydrologic Sciences
Proposal reviewer for NSF: Geomorphology and Land Use Dynamics
Proposal reviewer and Panelist for NSF: BRIGE Program
Proposal reviewer and Panelist for NSF Graduate Research Summer Institute: East Asia and Pacific Summer Institute

## Courses Prepared and Taught

Sediment Transport Processes, graduate level
Open Channel Hydraulics, graduate level
Principles of River Restoration, graduate level
Fluvial Processes, upper level undergraduate and graduate level
Water Resources Engineering, upper level undergraduate

## Students

### Doctoral Advisees

Tan Lu, "Effect of micro-roughness on bed armor formation and destruction." Expected completion, 2011. University of Virginia.
Kristen Canatelli, "Optimizing Sediment and Phosphorus transport following dam removal to maintain downstream water quality in the Chesapeake Bay." University of Virginia.
Amanda Keen-Zebert, 2007, "An Evaluation of the impact of small dams on sediment transport and flow regimes in the Guadalupe Watershed, Texas." Texas State University.

### Masters Advisees

Kristen Canatelli, "Natural channel evolution in a draining reservoir." Expected completion, 2009. University of Virginia.
Delbert Humberson, 2009, "Application of CAESAR modeling to a rapidly eroding channel." Texas State University.
Ben Warden, 2008, "Hydraulic Geometry of the Pedernales River, Texas." Texas State University.
Matt Ables, 2008, "Measuring bedload transport with an Acoustic Doppler Current Profiler." Texas State University.
Mary Pritchard, 2007, "The effect of sand supply on an armored gravel-bed river." Texas State University.
Frank Engel, 2007, "Creation of a morphometric classification scheme to be used in instream flow assessments of the San Antonio River, Texas." Texas State University.
Tim Cawthon, 2007, "Large woody debris loading in the San Antonio watershed." Texas State University.
Cody Simmang, 2007, "Effect of floodplain gravel mining on river morphology." Texas State University.
Kate Griffin, 2006, "Fluvial Geomorphology and Texas Wildrice Habitat on the San Marcos River." Texas State University.
Eleanore Whitworth, 2006, "Bathymetric mapping and sedimentation rates of the Town Lake reservoir in Austin, Texas." Texas State University.
Matthew Thompson, 2005, "The influence of land use/ land cover within riparian environments on channel change on the Guadalupe River, Texas." Texas State University.
Miriam Askelrod, 2005, "An analysis of smectite clay fracture densities and how they affect infiltration in Travis County, Texas." Texas State University.
Christine Peters, 2005, "A Characterization of the Riparian Zone for Alligator Creek, Comal and Guadalupe Counties, Texas." Texas State University.

## Professional Membership

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|---|---|
| American Geophysical Union<br>Hydrology section member | 1997 – present |
| American Society of Civil Engineers<br>Associate member | 2002 – present |
| Geological Society of America<br>Northeastern section | 2001 – present |
| Association of Environmental Engineering and Science Professors | 2008 - present |

## Service

### University

Member, University of Virginia School of Engineering and Applied Science Endowed Scholarship Committee, 2007 - Present
Member, Texas State University Graduate Scholarship Committee, 2004 - 2007
Member, Ad-hoc Committee to Evaluate Water Programs at Texas State, 2006 - 2007

### Department

Advisor of the University of Virginia ASCE Student Chapter. 2007 – Present
Chair, Civil and Environmental Engineering Web Site Committee, 2007 - Present
Member, Civil and Environmental Engineering Scholarships Committee, 2007 - 2009
Associate Director of the James and Marilyn Lovell Center for Environmental Geography and Hazards Research at Texas State University, 2003 – 2007
Chair, Search Committee for a Department Lecturer at Texas State University, 2006- 2007
Member, Equipment Committee at Texas State University, 2005 - 2006
Chair, Scholarships and Awards Committee at Texas State University, 2004 – 2005
Member, Search Committee for a Department Chair at Texas State University, 2003 - 2005
Member, Scholarships and Awards Committee at Texas State University, 2002 – 2004
Member, Undergraduate Committee at Texas State University, 2002 – 2003

### Disciplinary

Guest Editor of *Geomorphology*
Invited participant at "Development of a Decision Framework for Dam Removal and Sediment Management" workshop sponsored by the Bureau of Reclamation and the Subcommittee on Sedimentation to the Federal Advisory Committee on Water Information
Member of the ASCE Stream Restoration Educational Materials Task Committee, 2009-present
Member of the ASCE EWRI Stormwater Infrastructure Committee, 2008-present
Member of the ASCE Virginia Section Stormwater Committee, 2008-present
Member of the Virginia Stormwater BMP Clearinghouse Committee, 2008 – present
Member of the Rivanna River Basin Commission Technical Advisory Committee, 2008- present
Conference organizer for the 40$^{th}$ International Binghamton Geomorphology Symposium: Geomorphology and Vegetation. Blacksburg, VA. October, 2009.
Invited discussant at GBR7: 7$^{th}$ International Gravel Bed River Workshop. To be held in Tadoussac, Canada, September, 2010.
Session discussant at 37$^{th}$ International Binghamton Geomorphology Symposium: The Human Role in Changing Fluvial Systems. Columbia, S.C. October, 2006

Organized and chaired the paper session, Digital Image Processing of Colored Sediment to aid in Gravel-Bed River Experiments, at the 100th Annual Association of American Geographers Meeting. Philadelphia, PA. March, 2004.

Participant in meetings and field trip leader for the National Academy of Science during their review of the proposed standard for Texas In-stream Flow Determination document.