



2014 Watershed Symposium Program Agenda

February 18, 2014

Hollingsworth Auditorium

The University of Tennessee, Knoxville

Time	Presenter	Title
7:30-8:15 am	Registration, poster display and coffee (Poster judging starts at 8:00 am; Poster listings on back of sheet)	
8:15-8:30	Welcome , Assistant Dean John Stier, Ph.D., UT College of Agriculture Sciences and Natural Resources	
TECHNICAL SESSION I Moderator: Joanne Logan, Ph.D., UT BESS		
8:30-8:45	Keil Neff, Ph.D., Geosyntec Consultants	Development of Unsteady HEC-RAS Models to Update TVA Emergency Action Plans' Flood Inundation Maps
8:45-9:00	Liem Tran, Ph.D., UT Geography	A regional annual streamflow model with land use/land cover, climatic, and geomorphologic factors for the Tennessee River Basin with geospatial regression approach
9:00-9:15	Esther Parish, Environmental Sciences Division, ORNL	Designing Bioenergy Cropping Systems to Optimize Sustainability Objectives
9:15-9:30	Charles Sims, Ph.D., UT Baker Center for Public Policy	Water-Saving Infrastructure Investment under Uncertainty: A Case Study of Irrigated Landscapes in the Western U.S.
9:30-9:45	Jon Hathaway, Ph.D., P.E., UT CEE	Climate Change Impacts on Bioretention Performance in North Carolina, USA
9:45-10:00	BREAK	
KEYNOTE ADDRESS Introduction: Forbes Walker, Ph.D., UT BESS		
10:00-11:00	Thomas Wilbanks, Ph.D., Global Change and Developing Country Programs, ORNL	Keynote Address: <i>Is Climate Change a Problem for Water Resource Management In Tennessee and the Southern US?</i>
11:00-12:00	PANEL DISCUSSION: Water Resources Management in a Changing Climate Moderator: Thomas Wilbanks, Ph.D.; Panel: Scott Gain, US Geological Survey; Gwen Griffith, DVM, Cumberland River Compact; Curt Jawdy, P.E., Tennessee Valley Authority; Kelsey Scheitlin, Ph.D., UT Geography	
12:00-1:15	LUNCH (on your own, food trucks will be on site)	
AFTERNOON ADDRESS Introduction: John Schwartz, Ph.D., P.E., UT CEE		
1:15-1:45	Jonathon Burr, TDEC	Natural Gas Fracking in Tennessee: Present and Future
TECHNICAL SESSION II Moderator: John Schwartz, Ph.D., P.E., UT CEE		
1:45-2:00	Brad Collett, Ph.D., UT Plant Sciences	Watershed Stewardship: The Role of Planners and Designers
2:00-2:15	Brian Alford, Ph.D., UT FWF	Multi-scale habitats and stressors influencing Lake Pontchartrain Basin stream fish assemblages
2:15-2:30	Christopher Boyer, Ph.D., UT AREC	Probability of Irrigated Corn Being Profitable in West Tennessee
2:30-2:45	BREAK	
STUDENT ORAL PRESENTATIONS Moderator: Richard Strange, Ph.D., UT FWF		
2:45-3:00	Zachariah Seiden, UT CEE	A Water Quality Model Comparison of Potential Impacts from Bioenergy Crop Land Conversations: Switchgrass vs. Hardwood
3:00-3:15	Danielle Norman, UT College of Architecture & Design	Prioritizing Stormwater Management: Comparing Integrated Best Management Practices in Urban and Suburban Neighborhoods
3:15-3:30	Kelsey Hensley, UT BESS	Predicting site-specific daily streambank erosion to develop Total Maximum Daily Loads (TMDLs) for sediment using GPS-based watershed scale video mapping and EPA BANCS
3:30-3:45	Amir Haghverdi, UT BESS	Driving an empirical data mining-based model to predict soil water retention curve
3:45-4:00	Daniel Walker, UT FWF	Investigating the Effects of Stream Restoration on Substrate Profile
4:00-4:15	Janessa Davis, UT Sustainability Concentration	Asian clams can be useful as urban water quality indicators
4:15-4:30	Matt Reed, UT FWF	Freshwater Mussels of the Buffalo River Watershed
4:30-5:30	Poster session and professional networking (5:00 pm: Announcement of student prize winners)	

Made possible by the UT Watershed Faculty, UT CASNR and the Student Chapter of AWRA at UT



2014 Watershed Symposium Program Agenda

February 18, 2014

Hollingsworth Auditorium

The University of Tennessee, Knoxville

POSTER SESSION Back of Hollingsworth Auditorium during breaks, lunch and 4:30-5:30 pm.

Presenter	Poster Title
Bryan Bozeman	Impacts of acid mine drainage from surface coal mining on downstream aquatic communities
Bing Cao	Seasonal aquatic metabolism in an agricultural stormwater treatment wetland
Kevin Cavalos	Cellulosic Biofuel Facility Locations: Decisions and Impacts on Surface Water Quality in the Southeastern United States
Si Chen	Export of Carbon, Nutrients, and Microbiological Indicators in Beaver Creek Watershed, Tennessee
Binod Chapagain	An Assessment of Floodplain Forest Land Use Dynamics and Ecosystem Services in Western Tennessee Watersheds
Rachel Craig	Beaver Creek Then and Now - Revisiting Watershed Assessment Objectives
Franco D'Aprile	Effects of Development on Water Chemistry in Third Creek in Knoxville, Tennessee
Adrian Gonzalez	Modeling the Stream Water Chemistry of a Watershed in the Great Smoky Mountains National Park
Kristin Irwin	Growth Rate Differences in Modern and Archeological Freshwater Mussels
James Jones	Spatial and Temporal Variability of Precipitation and Streamflow in the Upper Tennessee Valley
Ryan Hodges	Increasing Metal-Sorption Capacity of Rain Gardens with Low-Cost Amendments
Alicia Kutz	Willingness to Adopt Best Management Practices by Beef Cattle Operations in East Tennessee
Lephan Le	The Spatial Variation of Selenium in Appalachian Coal Seams
Erica Neely	Creation of Wetlands on the University of Tennessee-Knoxville Campus
Joseph Rungee	Long-term Evaluation of Norris Dam Operation under Changing Climate
Paul Simmons	A Geostatistical Analysis of Stream Bank Heterogeneity and its Contribution to Bank Stability
Derek Street	The Impacts of Land Spreading Liquid Manure on Surface and Subsurface Waters
Anna Szykiewicz	Application of sulfur isotopes in watershed studies – Example from the semi-arid Rio Grande
Justin Tomes	Impacts of surface coal mining and heavy metal pollution in Southern Appalachian watersheds
Daniel Wade	Streambank Erosivity and Substrate Mapping using SVMS on the East Fork Poplar Creek
Shelby Ward	Freshwater community change in response to National Pollutant Discharge Elimination System (NPDES) enforcement
Robert Woockman	Characterizing Suspended Sediment Flux Behavior in Tennessee Streams: Potential for Macroinvertebrate Impairment
Jia Zhong	Analysis of Evolution Characteristics and Influential Factors of Water Resources and Water Environment in Tianjin, China

2014 Watershed Symposium Sponsors:



engineers | scientists | innovators

