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**BROCK A. EMMERT**  
**Geomorphologist**

### **SPECIALITIES**

- Fluvial Geomorphology
- Stream Survey and Assessment
- Stream Monitoring
- Streambank Stabilization
- Spatial Analysis
- Riparian Buffers and Stream Ecology
- Wetland Determination and Delineation

### **RELEVANT EXPERIENCE**

Mr. Emmert Has over 9 years experience in the field of fluvial geomorphology, streambank stabilization, and riparian restoration. Before joining The Watershed Institute, he served 5 years with the state of Kansas. The first three years were with the Kansas Water Office as a stream specialist. Mr. Emmert was responsible for completing a USEPA statewide stream research project entitled: Geomorphic Assessment and Classification of Kansas Riparian Systems. He supervised field survey crews on 125 stream surveys at discontinuous and present USGS stream gaging stations. Data was collected at each survey site for classifying the stream to a Rosgen Level II stream type. Mr. Emmert was responsible data collection and analysis for each survey. Analysis included determining the dimension, pattern, and profile of the bankfull discharge, classification, identification of hydrophysiographic provinces, and regional curve development. The project resulted in a stream classification database for Kansas and regional curves for four hydrophysiographic provinces.

Additionally, Mr. Emmert conducted and co-authored the Assessment, Geomorphic Definition, and Documentation of Kansas Stream Corridor Reference Reaches USEPA grant for the Kansas State Conservation Commission (KSCC). Project goals included identification and geomorphic surveys of stream reference reaches in Kansas. Mr. Emmert surveyed 41 reference reaches and conducted analysis to document the dimension, pattern, and profile of the bankfull channel. He collected data for pools, runs, glides, sediment size distributions, and particle entrainment. All of these surveys will form a database of Kansas stream reference reaches for use in future potential stream restoration projects. The data is also used to further refine and develop regional curves for Kansas.

Brock has also worked with KSCC's Riparian and Wetland Protection program. He assisted with surveying, mapping, and designing on more than 100 bendway weir and rock vane streambank stabilization and riparian restoration projects. He is also responsible for construction over-sight on building bendway weir and rock vane streambank stabilization projects. In addition, Mr. Emmert has formal training in—and significant experience using—the USACE 1987 Wetland Delineation Manual.

In 2005 and currently in 2006, Brock has worked with Kansas Department of Wildlife and Parks (KDWP) collecting, analyzing, and disseminating fluvial geomorphology data in conjunction with KDWP

biological surveys. He has performed over 60 surveys in the two years. The data will be used to compare and relate biological and physical channel geomorphic properties.

## **TECHNICAL TRAINING**

### **Geomorphology and Hydrology**

Applied Fluvial Geomorphology  
River Morphology and Applications  
River Assessment and Monitoring  
River Restoration and Natural Channel Design  
Advanced Streambank Stabilization

### **Wetlands**

Army Corps of Engineers Wetland Delineation Training – 1987 Manual

## **EMPLOYMENT HISTORY**

Watershed Institute, Geomorphologist, November 2003 – present  
Kansas State Conservation Commission, Stream Specialist, January 2002 – November 2003  
Kansas Water Office, Stream Specialist, August 1998 – January 2002

## **EDUCATION**

B.A. Geology, 1996, University of Northern Iowa  
B.A. Geography, 1996; University of Northern Iowa  
M.A. Geography, 1998; Kansas State University  
*Thesis: Hydrologic Modeling of Anthropogenic Impacts on Little Kitten Creek Watershed, Northeastern Kansas*

## **SELECT TECHNICAL & POPULAR PRESENTATIONS**

November, 2004	Regional Curve Development for Identified Kansas Hydrophysiographic Provinces 13 <sup>th</sup> Annual Kansas Hydrology Seminar
September, 2004	Regional Curve Development for Kansas American Society of Agricultural Engineers
March, 2004	Geomorphic Assessment and Classification of Kansas Stream Corridors <b>10th Regional Wetlands and Water Resources Meeting</b>
February, 2004	Regional Curve Development for Kansas. Kansas Chapter of American Fisheries Society

## **PUBLICATIONS**

Emmert, B.E. and K. Hase. 2001. Geomorphic assessment and classification of Kansas riparian systems. USEPA No. CD997520-01.

Emmert, B.E. 2004. “Regional curve development for Kansas.” In *Proceedings of the ASAE Conference: Self-Sustaining Solutions for Streams, Watersheds, and Wetlands Conference*. St. Paul, Minnesota. Pages 27-34.

Emmert, B.E. 2004. Assessment, Geomorphic Definition, and Documentation of Kansas Stream Corridor Reference Reaches. USEPA No: CD-987073-01. Kansas State Conservation Commission, Topeka, KS. 38pp.

Emmert, B.E. 2005. Fall River Watershed Joint District No. 21 Fluvial Geomorphology Report. Watershed Institute. Topeka, Kansas. 38pp.

Emmert, B.E. 2006. Kansas Department of Wildlife & Parks Fluvial Geomorphology Report. Watershed Institute, Topeka, KS. 30pp.