



Interdisciplinary Consortium  
for Applied Research in the  
Environment

National Science Foundation  
Research Training Grant

*Broadening Participation Across the  
Environmental Sciences in & around  
Baltimore Harbor*



Project Title: Comparative analysis of urban watershed sediment loads and yields from multiple cities along the mid-Atlantic eastern seaboard

UMBC mentor name & department: Dr. Andrew Miller, Geography & Environmental Systems

Partner mentor name & institution: Drs. Allen Gellis and Gregory Noe, U.S. Geological Survey

Brief project description:

Concerns about the impact of erosion and sediment transport associated with intensive land use in the Chesapeake Bay watershed have led to management efforts intended to reduce the amount of sediment being transported from both agricultural and urban landscapes. However, the evidence about how much sediment is actually being exported from urban watersheds is mixed, and there is a need for improved understanding of what controls these patterns. This project involves analysis of sediment data from the Baltimore, Philadelphia, Washington, D.C., and Charlotte, NC metropolitan areas. We will draw on existing data from intensive monitoring of a set of small urban watersheds in Baltimore, compared with observations from urban watersheds in the other cities.