



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2002NC3B

Title: A Systematic Evaluation of Polyacrylamide for Sediment and Turbidity Control

Project Type: Research

Focus Categories: Non Point Pollution, Surface Water, Water Quality

Keywords: Soil erosion, runoff, suspended sediments

Start Date: 03/01/2002

End Date: 02/28/2003

Federal Funds: \$19,112

Non-Federal Matching Funds: \$38,224

Congressional District: 2nd

Principal Investigator:

Richard A. McLaughlin
North Carolina State University

Abstract

We propose to evaluate PAM use for improving sediment retention and reducing turbidity in sediment traps and basins at the Sediment and Erosion Control Research and Education Facility (SECREP) at the NCSU Lake Wheeler Road Field Laboratory. We have already installed the infrastructure for testing sediment and erosion control systems under controlled conditions (McLaughlin et al., 2000, 2001). Our proposed work will begin to lay the foundation for the use of PAM for sediment and turbidity control in sediment traps and basins. We will evaluate both typical and modified sediment traps (baffles and/or skimmer) to determine if they significantly improve sediment removal in combination with PAM. We will also examine environmental influences (moisture, temperature) on PAM log performance. Interactions between PAM and gypsum as an electrolyte source will also be evaluated to verify reported improvements in PAM efficiency.