



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: AL4121

Title: Studies to Evaluate the Effectiveness of Current BMPs in Controlling Stormwater Discharges from Small Construction Sites

Focus Categories: Quality, Ecology

Keywords: Bioassessment, Invertebrate Communities, Fish Communities, Sediments, Construction, Erosion Control, Erosion

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Non-Federal Matching Funds: \$58,634

Congressional District: VI

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Abstract

Stormwater runoff from construction sites has become an increasingly major contributor of fine inorganic sediment input into our streams and rivers. The negative impacts of excess fine sediment loads extend to all segments of the aquatic ecosystems from microbes to fish. While large construction projects represent single major potential pollution sources and are usually more visible, smaller construction sites (usually future home sites <5 acres) are both more numerous and are less likely to employ adequate erosion control BMPs. The most common BMPs employed at such sites are plastic silt fences and hay bales. Few scientific studies have been performed to evaluate the effectiveness (or lack of it) in the field of such BMPs, especially as affected by physical site and rainfall characteristics. This is especially true for the more upland and hilly terrain of Alabama and the Southeast. Information on the effectiveness of such BMPs in hilly terrain situations and the factors influencing the effectiveness is needed to assist in the selection of appropriate BMPs and the design of future erosion controls. Such information would be directly useful to federal, state and local regulatory agencies charged with the protection of aquatic environments.