CEAP Assessment

Evaluate conservation practices effects on soil quality, water quality, and aquatic habitat.

Watershed Description
- 5,200 acres
- 90% pasture and forest
- Goodwin Creek is designated as an impaired water body under the Clean Water Act.

Issues:
- Region has one of the highest erosion rates in the nation. Runoff carries sediment, excess nutrients, and fecal coliform.
- Sediment causes reduced sizes and species composition of fish and invertebrates.

Approach

Water sampling: Sediment, phosphorus, nitrate-nitrogen, pathogens
Watershed models: AnnAGNPS (Annualized Agricultural Non-Point Source) and CONCEPTS (Conservational Channel Evolution and Pollutant Transport System)
Research: Measure sediment transport rates in streams. Identify sediment sources and effects on environment

Communicating Results

Conference proceedings, journal articles, and technical reports on the effects of conservation practices on sediment and nutrients.

Collaborators
- USDA Natural Resources Conservation Service
- U.S. National Oceanic and Atmospheric Administration
- University of Mississippi National Center for Physical Acoustics

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Timeline

2005
December
1st ARS Benchmark Watersheds progress report

2006
December
2nd ARS Benchmark Watersheds progress report

2007
December
3rd ARS Benchmark Watersheds progress report

2008
December
4th ARS Benchmark Watersheds progress report

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