



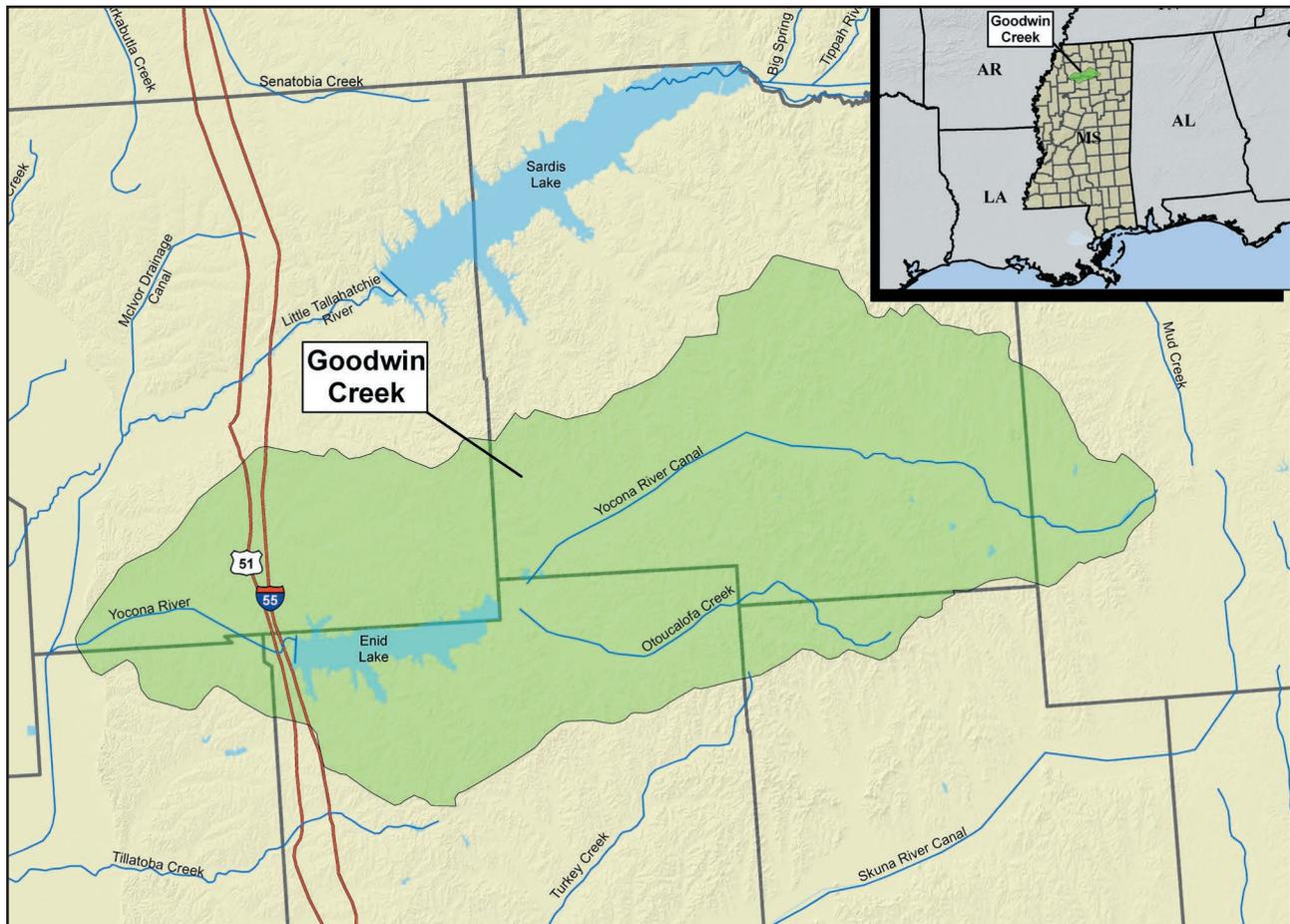
United States Department of Agriculture

Conservation Effects Assessment Project (CEAP)

Watershed Fact Sheet

Goodwin Creek Watershed, Mississippi: 2004-2006

An ARS* Benchmark Research Watershed, one of 24 CEAP watershed projects.



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 designated as an impaired water body under the Clean Water Act

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

*Agricultural Research Service



"Electrofishing at weir,GC.bmp" - ARS employees sample fish to document habitat-associated improvement in diversity on Goodwin Creek. Modified stream stability structures can provide habitat enhancement.

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)

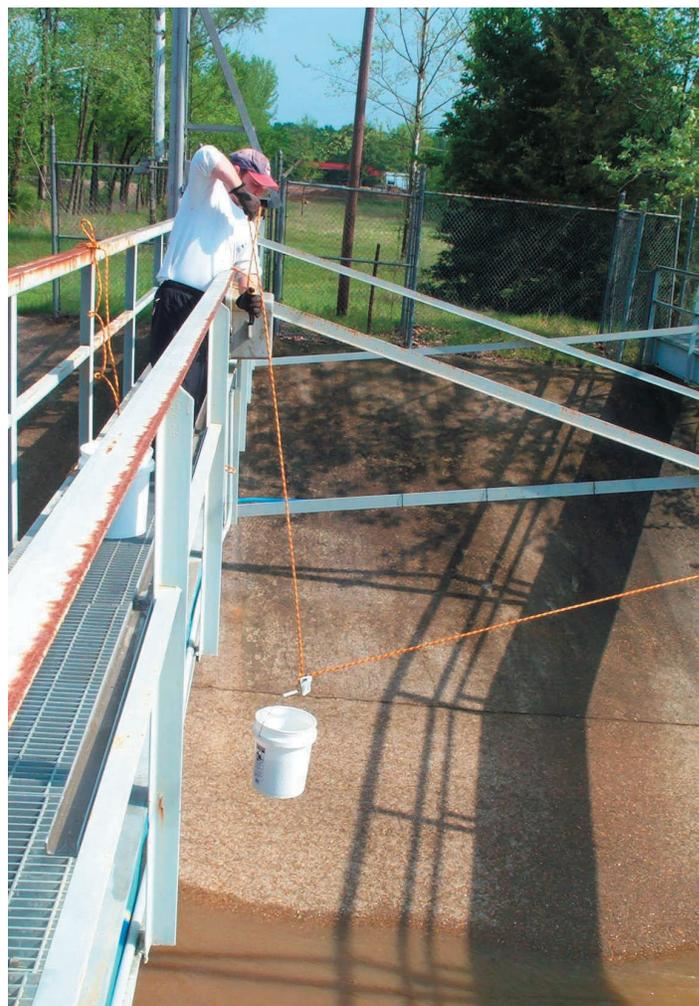
Research: Measure sediment transport rates in streams. Identify sediment sources and effects on environment.

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



Suspended sediment sampling.

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