

Project #: 00-1200

Project Name: Physical, Chemical, and Biological Assessment of the Strawberry River Watershed

Watershed: Strawberry, HUC #11010012

Counties: Lawrence, Sharp, Izard, Fulton

Project Type: Monitoring

Pollutants: Silt and suspended solids loadings, fecal coliform bacteria

Project Summary

The Strawberry River, a tributary to the Black River, is located in the Ozark Highlands ecoregion in north-central Arkansas. Its headwaters arise near Salem, Arkansas in Fulton County. The river flows in a southeasterly direction through Izard, Sharp and Lawrence Counties before it enters the Black River near Strawberry, Arkansas.

The Strawberry River watershed offers year-round recreational activities. Additional watershed uses include confined animal operations and pasture land for livestock, and silviculture. The Strawberry River is designated as an Extraordinary Resource Waterbody, a Natural and Scenic Waterway, and an Ecologically Sensitive Waterbody. In addition, there are several state and federally listed “endangered” and/or “species of concern” species possibly occurring in the river. The river also hosts one of the most diverse fish faunas in the state with approximately 100 species of fish being recorded.

Arkansas' 1998 Water Quality Inventory Report (305(b)) identified two stream segments as not fully supporting the aquatic life use, and two additional stream segments as “waters of concern” for aquatic life use. In addition, one stream segment is listed as a “waters of concern” for the primary contact recreation use. The major cause of the impairment is thought to be from excessive turbidity from silt and suspended solids loadings, and fecal coliform bacteria entering the creek during storm events. Agriculture activities within the watershed are thought to be the major source of the silt and bacteria. In addition, silt and total suspended solids inputs from the unpaved roads and silviculture activities are most likely adding a significant loading and increasing in-stream turbidity concentrations during storm events.

The project goals/objectives are to assess the waters of the Strawberry River watershed by identifying areas of water quality impairment, their causes and sources; and to provide data for TMDL development as appropriate. This assessment will consist of: 1) an overall land use survey; 2) a synoptic water quality, macroinvertebrate and fish community survey; 3) an intensive, source-specific water quality, and macroinvertebrate survey; 4) a stream bank erosion survey; and 5) a ground water survey. This assessment survey will further refine the 1998 305(b) assessment and the 1992 "Arkansas Nonpoint Source Pollution Assessment Report" concerning nonpoint source pollution activities and impairments in the watershed and prioritize the watershed subbasins for best management practices implementation.