

US EPA ARCHIVE DOCUMENT



# Bayou Bartholomew

## WHY IS THIS WATERSHED SPECIAL?

Bayou Bartholomew is one of the last remaining major streams in the Lower Mississippi River Valley that has not been dredged or channeled. The bayou covers 359 miles and follows a meandering 269 miles through six counties in Arkansas before joining the Ouachita River in Morehouse Parish, Louisiana. The river supports one of the most diverse arrays of aquatic life known to occur in the southeastern United States. This stream is home to 117 species of freshwater fish and 31 species of freshwater mussels. Although fragmented, the scenic landscape of bottomland forest supports abundant terrestrial species and plant communities.

## ENVIRONMENTAL CHALLENGES

The Bayou Bartholomew Watershed Plan identified fifteen problems affecting the watershed and includes both short and long-term actions to address each problem. The Targeted Watersheds Grant focuses on the following key areas:

- Sedimentation is the leading cause of decreased water quality throughout the bayou. Increasingly brown and murky water makes the water less inhabitable for the many aquatic and terrestrial species in the area.
- Log jams affecting stream flow can alter the topography and result in the loss of wetland areas and specialized habitats.
- Agriculture, deforestation, and land clearing activities are major contributors to these impairments and in the decline in the watershed's overall health.

## RESTORATION ACTIVITIES

The Bayou Bartholomew Alliance will use EPA Targeted Watersheds Grant funds to study and test several innovative approaches to monitor and restore the water quality.

- Introduce a market-based environmental assets program that benefits industry, private landowners, and land restoration efforts.
- Convert marginal cropland back to hardwood forests by offering carbon sequestration credits.
- Establish a continuous water quality monitoring program.
- Collect stream morphology data for a representative stretch of the river.
- Redesign or rehabilitate rock or earthen weirs to increase stream flow, reduce erosion, and improve fish passages.
- Develop a mussel protection program.

"We are seeing fish species in the bayou today which have not been recorded for decades, such as the river redhorse, which is intolerant of heavy silt loads. All sites monitored for fish community analysis have shown increases in diversity and biomass since the initiation of the project. Undoubtedly, restoration efforts are making a difference."

— Dr. Bill Layher  
Bayou Bartholomew  
Alliance

Removing log jams will improve flow, reduce erosion, and enhance recreational opportunities.



## A STRONG PARTNERSHIP FOR CHANGE

The Bayou Bartholomew Alliance, formed in 1995, has joined forces with Winrock International, The Nature Conservancy, the County Conservation Districts, the Natural Resources Conservation Service and the Arkansas Department of Environmental Quality to create a formidable partnership for change.



The watershed plan will offer market-based incentives to restore bottomland hardwood forest in exchange for carbon sequestration credits.



Volunteers have removed 146 tons of trash from the bayou.



Sight-feeding fish, such as this longear sunfish, have recovered at all sites monitored in the Bayou Bartholomew. Some species of fish not recorded for decades are reappearing.

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## EPA'S TARGETED WATERSHEDS GRANT PROGRAM

EPA's Targeted Watersheds Grant Program is a new, competitive grant program designed to encourage collaborative, community-driven approaches to meet clean water goals.

For more information about the selected watersheds, please visit:  
<http://www.epa.gov/owow/watershed/initiative/>



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