



# OKLAHOMA GREEN COUNTRY WATERSHED EDUCATION

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Illinois River Watershed Land Use Cover

Illinois River Watershed poultry Houses



## 1. Increase public awareness of potential impact of individual, industrial and governmental actions:

### Blue Thumb Volunteer Monitoring Program



- Over 30 volunteers active in the Illinois River and Spavinaw Creek Watersheds
- Monthly monitoring of water quality parameters throughout the watersheds
- Storm drain labeling program begun in spring of 2003 (see right)



### Oklahoma Scenic Rivers Website

- <http://www.scenicrivers.state.ok.us>
- 11,000 hits since August 2002
- A joint effort with the Oklahoma Scenic Rivers Commission, Project Partner

**PROJECT SUMMARY**

The project targets two watersheds in the "Green Country" of northeastern Oklahoma. Rapid growth of the region's poultry industry and its burgeoning population have embroiled both watersheds in highly-publicized controversies. First, Spavinaw Creek, one of two drinking water sources for the City of Tulsa, has severe taste and odor problems. Consequently, Tulsa brought suit against the poultry industry, resulting in a moratorium on use of poultry litter as fertilizer within the watershed. Details of the multimillion dollar settlement continue to be finalized. Second, Oklahoma's foremost state-designated Scenic River, the Illinois, feeds Lake Tenkiller; together, they drive the local tourism/recreation-based economy. Increased numbers of lakeside communities and golf courses, as well as poultry farms, are blamed for nutrient-related declines in water and habitat quality in this watershed.

Eutrophication, increased runoff, sedimentation, and declining riparian habitat threaten both watersheds. Local soils and geology accelerate the degradation of area stream channels. Project activities focus on three areas to combat these problems.

**PROJECT ACCOMPLISHMENTS**

- Increase public awareness of potential impact of individual, industrial and governmental actions:**
  - An evaluation of previous projects in the Illinois watershed is planned; to date, over 150 reports dating back over 40 years have been collected and categorized.
  - An Oklahoma Scenic Rivers Website has been created, with project information and educational content; it has received 11,000 hits since its August 2002 publication.
  - The existing Blue Thumb Volunteer Monitoring Program has been augmented; a high school student group recently certified 10 new members and plans to develop a group website.
- Demonstrate effectiveness of BMPs:**
  - A site on Cherokee Nation grazing lands has been selected for riparian management demonstrations.
- Support for ongoing educational programs:**
  - Water quality education modules have been designed for use by Extension Educators and others in existing programming.
  - User-friendly PowerPoint presentations on *Crazing and Riparian Area Management* and *Offsite Effects of Animal Waste* have been prepared and delivered with in-service training.

## 2. Demonstrate Effectiveness of BMPs

The Project is partnering with the Cherokee Nation of Oklahoma to establish a riparian demonstration site (shown below) on tribal land. Use of in-stream aquatic habitat indices, as well as the presence of bottomland heritage plants in the riparian corridor, is planned to monitor BMP effectiveness.



Overgrazed riparian area on leased tribal land in eastern Oklahoma.

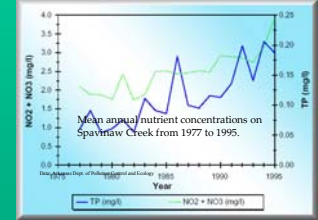


Protected riparian area at comparison site approximately 1/4-mile downstream.

Algal Bloom on Lake Eucha



Spavinaw Creek Nutrient Trends



## 3. Support for Ongoing Educational Programs

Short programs have been designed for Extension agents to use at County Meetings (e.g., Cattlemen's Association) or other speaking venues. In-service training is planned to be provided along with the modules. The modules cover four areas of concern within the watersheds.

