

Cost-Share Programs & Technical Assistance

October 1st is the time to start applying for Federal cost-share programs offered through the 2002 Farm Bill. For conservation plans, technical assistance, and information on cost-share programs, please contact the Natural Resources Conservation Service (NRCS) in your county.

- ☀ Loudon County residents call 1-888-257-1245, option 5, extension 3
- ☀ McMinn County residents call 423-745-6300, extension 3
- ☀ Monroe County residents call 423-442-2202, extension 3

Program	What land is eligible?	Length of Agreement	What USDA offers
Environmental Quality Incentives Program (EQIP)	All private land in agricultural production: includes cropland, grass-land and pastureland.	1 - 10 years	Cost share on installed BMPs, up to 75%
Conservation Reserve Program (CRP)	Highly erodible cropland that has been planted for 4 of the 6 years preceding enactment of the 2002 law. Marginal pastureland is also eligible.	10 - 15 years	Annual payment based on length of agreement and cost share on installation of practice, up to 50%

Program in agriculture and natural resources,
4-H youth development, family and consumer sciences,
and resource development.
University of Tennessee Institute of Agriculture,
U.S. Department of Agriculture and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.

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POND CREEK WATERSHED

Fall 2004

News for Watershed Residents

Have You Seen This Person?

Lena Beth Carmichael is the Project Coordinator for Pond Creek Watershed. She comes to this position after teaching agriculture at Hiwassee College for eight years. Previous experience as an extension agent leaves her familiar with issues faced by farmers. Years on a dairy farm, raising beef cows and growing tobacco have contributed to her understanding of the farmer's viewpoint.

She is active in meeting farmers and other landowners in the watershed, communicating needs with other agencies that may be able to provide funding for individual projects, and testing water quality in the creeks.

Lena Beth can be found at the UT Extension, McMinn County office on West College Street in Athens. Contact her by calling 423-745-2852 or by e-mailing lbcar michael@utk.edu.



What's So Important About Pond Creek?



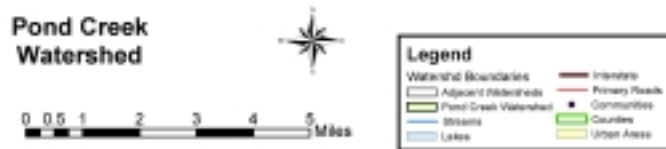
Work has already begun in the watershed.

First the bad news: the State of Tennessee has classified Pond Creek as impaired due to poor water quality. The report listed the causes for impairment as pathogens (bacteria and other disease causing organisms) and nutrients (nitrogen & phosphorous). The impaired classification has spurred studies and activities to improve water quality.

The *good news* is we can fix this. Pond Creek is primarily agricultural. There are no municipal water treatment facilities or industrial discharges to the creek. Therefore, improvements to water quality can be directly linked to the use of Best Management Practices being installed and implemented on farms throughout the watershed. Best Management Practices, or BMPs, are engineered structures or management activities, or a combination that reduce the effects of pollutants.



Pond Creek watershed drains over 23,500 acres that lie in parts of McMinn, Monroe and Loudon counties. The communities of Adolphus and Prospect are located in the watershed. Prospect Branch, Greasy Branch and Cherry Branch are the only other named creeks in the watershed. Snow Ridge and Matlock Ridge form the watershed boundaries on the north end of the watershed.



What is a Watershed?

A watershed is an area of land that drains water into a particular stream, river, wetland or lake. Watershed boundaries are formed by mountains, ridges and other areas higher than the surrounding land. As water flows from higher elevations, individual streams and creeks converge into a river system that becomes progressively larger as water moves downstream. Larger watersheds are made up of many interconnected smaller watersheds. All water that falls within the bounds of the Pond Creek Watershed eventually flows into the Tennessee River at Watts Bar Reservoir. As water travels across pastures, forest land, suburban lawns and paved surfaces, the flow of water picks up pollutants and carries them into our waterways.

Accomplishments

- Secured over \$220,000 in funds and grants
- Hired a watershed coordinator
- Compiled database of 600 watershed addresses
- Produced a BMP calendar
- Interpreted aerial photographs to determine land uses & condition
- Installed 3 structural BMPs
- Drafting 5 dairy whole-farm nutrient mgt. plans
- Analyze 8 water samples a month
- Hosted numerous watershed meetings
- Conducted Farm-City Days for children in all 3 counties

HELP IS ON THE WAY...

A partnership being led by the University of Tennessee Extension has applied for and received several grants that offer cost-share monies to land-owners in the watershed wanting to install BMPs on their land. Other partners include Natural Resources Conservation Service, Farm Service Agency, Soil Conservation Districts, Tennessee Department of Agriculture, and Tennessee Valley Authority.



Threats to Water Quality

Most of the pollution that impacts Pond Creek comes from nonpoint sources. Nonpoint source pollution occurs when water travels across farm fields, residential lawns and roads, picking up pollutants and carrying them into our waterways. Understanding the various types of pollutants, their impacts and sources, can assist in taking action to improve overall water quality of Pond Creek.

Erosion and Sedimentation

Erosion occurs when water moves soil from one place to another. Erosion occurs naturally, but is increased by agriculture, forestry, construction, mining or lawn management practices. If we can control erosion, we can greatly reduce the amount of nutrients and pathogens in the water. *Sedimentation* occurs when eroded soil is deposited into a water body. Sediments carry pollutants such as nutrients, bacteria, heavy metals and harmful chemicals into the creek. When excessive sedimentation happens and covers a stream bottom, aquatic habitat is eliminated, flooding increases, recreational and aesthetic values decrease, and water for human use is more difficult and expensive to treat.

Pathogens

Pathogens are disease-producing organisms. High concentrations of pathogens in streams can be a threat to public health. Wastes from animals and failing septic systems washing into a stream cause high pathogen levels. Not only are pathogens hazardous to human and livestock health, they reduce the recreational and natural resource value of a stream and may increase costs for treating drinking water.

Nutrients

Nutrients such as phosphorous and nitrogen are found in fertilizers, animal wastes, many household detergents, as well as septic system leakage from residential areas. While nutrients are necessary for plant growth, greener lawns, and healthier crops, excess nutrients wash into streams and cause excessive growth of algae and aquatic plants. This change in the aquatic environment eliminates habitat and food supply for aquatic species, reduces water quality, increases water treatment costs and makes the water less appealing for recreational activities. When the algae in a stream die, their decomposition removes oxygen from the water. Without oxygen, fish and other aquatic organisms die.