



# SOIL AND WATER CONSERVATION DISTRICT OF PERRY COUNTY

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Monday Night of Each Month**

1003 North Main

547-4077

Extension 3

Perryville, MO 63775

JANUARY 2010

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OUR SOIL★ OUR STRENGTH

# NEWSLETTER

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## Attention Landowners/Producers: Does The NRCS Have Funds Available For You?

Now is the time to apply at the Natural Resources Conservation Service (NRCS) for assistance for a variety of conservation practices. Funds are available through four different programs: EQIP (Environmental Quality Incentives Program), WHIP (Wildlife Habitat Incentives Program), WRP (Wetlands Reserve Program) and GRP (Grassland Reserve Program). The deadline to apply for 2010 funds is Friday, January 29, 2010.

These programs offer practices to address many conservation goals. Some of these goals are: reducing erosion, improving wildlife habitat, improving forestland, fertilizer management, grazing management, removing livestock from forestland, improving grazing water distribution and more. The NRCS staff will help you determine which practice and program will best fit your conservation goals.

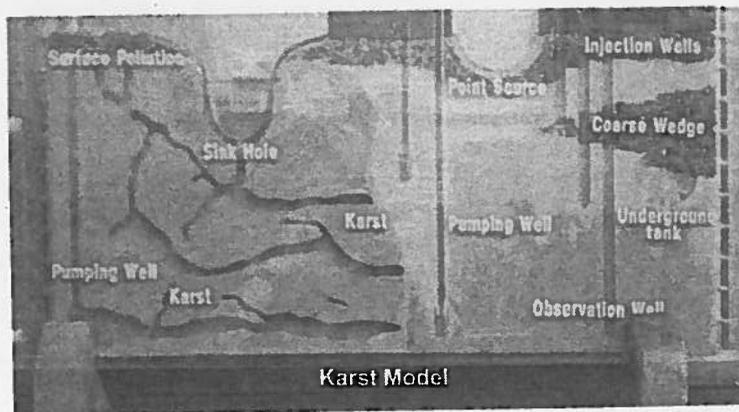
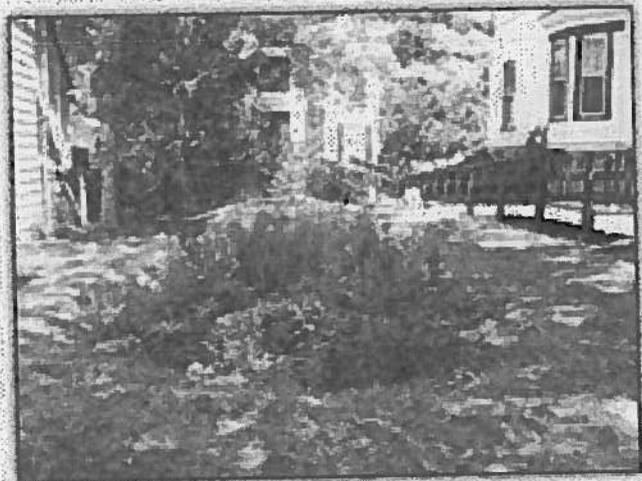
Contact the NRCS office at 573-547-4077, ext 3 or check out their website at [www.nrcs.usda.gov](http://www.nrcs.usda.gov) for more information on any of these programs. **Remember the deadline to apply for 2010 funds is Friday, January 29, 2010!**

In October 2006, the Missouri Department of Natural Resource (MO DNR) awarded the Perry County Soil and Water Conservation District (PCSWCD) and the Missouri Department of Conservation (MDC) with a 319 Non-Point Source Pollution Grant. This grant was to be utilized to determine the water quality problems of the surface and cave waters within Perry County. In April 2008, the MO DNR awarded the PCSWCD and the MDC with a 319 Non-Point Source Pollution Mini-Grant. This mini-grant was to be utilized to educate Perry County residents of the unique and fragile karst area that they call home and the ease of contaminating the surface, cave, and groundwater sources. We have highlighted some of the activities and projects conducted in the past couple of years. We have also finished most of the water quality sampling for nutrients, *E. coli*, and herbicide contaminants. We hope to present some of the preliminary data at the PCSWCD Annual Meeting. These results will give Perry County residents a rough idea of the water quality in the karst region of the county and suggestions of the next steps to consider how to address water quality problems. If you have any questions or would like to get involved with the projects, please feel free to contact LaVern Taylor, 319 project coordinator, at either (573) 290-5858 ext 241 or [lavern.taylor@mdc.mo.gov](mailto:lavern.taylor@mdc.mo.gov).

### New Projects

A Boy Scout troop has tentatively accepted a sinkhole cleanout and restoration project as a possible Eagle Scout project. The project coordinator is waiting on word from the troop so that preliminary planning can begin.

The Perry County Master Gardeners, PCSWCD, and the MDC are planning to work with Perry County schools to install native rain gardens. The schools that have been notified of their selection to participate in the project are Perryville Middle School, St. Vincent Elementary School, Salem Lutheran School, Concordia-Trinity School, Immanuel Lutheran School, and Altenburg Public School. If the school is willing to allow the installation of a native rain garden, the PCSWCD and MDC will donate a karst groundwater model (valued at \$800.00) to the school. The Perry County Master Gardeners will design and help plant the native rain garden. There are no direct costs to the school. We would like teachers and students to participate in planting the garden. The native rain garden can be used for years to come to illustrate the importance of filtering runoff to remove pollution and sediment before the water reaches streams, cave streams, and the groundwater. The karst ground water model allows students to understand how water and pollution moves through the unique karst environment as well as the standard soil environment. Participating teachers will receive additional educational curriculum guides and material. The project coordinator is waiting on word from the schools so that preliminary planning can begin. The project will be sponsored by the PCSWCD and the MDC with 319 mini-grant funds for karst education awarded by MO DNR.



## **Sinkhole Garbage Cleanouts**

The 319 grant for karst protection has funded two sinkhole garbage cleanouts. We hope to determine an average cost of a cleanout so that a 50% to 75% cost-share program could be developed. The garbage is removed from the sinkhole and then seeded with grasses to stabilize the sinkhole. Sinkhole cleanout is a pilot 100% cost-share program sponsored by the MDC as matching funds to the 319 grant funds for karst protection awarded by MO DNR. Additional funding from the US Fish and Wildlife Service should become available in July 2010 for future cleanout projects.

The first cleanout was conducted on Terry and Fran Scholl's property east of Altenburg. The sinkhole had been used as a household garbage dump for 50 years and 150 cubic yards of garbage was removed.



The second cleanout was conducted on John Schrenk's property east of Perryville. Likewise, this sinkhole had been used as a garbage dump for numerous years and 31 tons of garbage was removed.



## **Well Water, Cave Life, and the Human Connection Teacher Workshops**

The 1<sup>st</sup> teacher workshop was held July 16, 17, 2008. Sixteen teachers participated of which 5 were from Perry County, Sarah Bonhert, Hannah Fritsche, Natalie Fritsche, Deanna Kluender, and Debbie Lichtenegger. The 2<sup>nd</sup> teacher workshop was held July 14–16, 2009. Sixteen teachers participated of which 2 were from Perry County, John Cross and Margorie Triller. Teachers could get college credits through SEMO University for participating in the workshop. The workshop was broken up into sections covering 1) karst geology, 2) watersheds, 3) water quality, 4) human impacts – good and bad, 5) cost-share and other assistance programs, 6) cave ecology, 7) cave life, and 8) caving and caving ethics. Each section consisted of a lecture and an activity suitable for use in the classroom. One day consisted of field trips. The first field trip was to assess water quality based on the macro-invertebrates living in the stream. The second field trip was to a cave in Perry County to conduct a bio-inventory. The teachers did a great job of finding cave life and were able to increase the number documented species living in the cave from 12 to 29 species. By the end of the workshop, teacher received Project WET curriculum materials, groundwater, water quality, and cave curriculum materials, classroom posters, educational information, cave and water quality video and audio clips, macro-invertebrate sampling kits, all classroom lectures and notes, and lots of other educational and classroom materials. This was a free workshop, other than the cost of college credits, sponsored the PCSWCD and the MDC with 319 mini-grant funds for karst education awarded by MO DNR.

### **Perryville Summer School Fieldtrip**

The Perryville Middle School summer session participated in a half day field trip to Ball Mill Resurgence. The subject of the summer session was a result of Natalie Fritche's participation in the 2008 Well Water, Cave Life, and the Human Connection teacher workshop. Materials provided in the workshop provided that basis for teachers to build the summer session curriculum. During the fieldtrip, students were able to see karst geology, the importance of water quality, understand the connection of surface activities on water quality of drinking water, methods to protect cave life and water quality. Some lucky students were selected to receive Perry County Karst and Water Quality t-shirts. The t-shirts were sponsored by a donation from Hach Environmental and by the PCSWCD and the MDC with 319 mini-grant funds for karst education awarded by MO DNR.

### **Perry County 4-H GIS Technology Projects**

Perry County 4-H members involved in the GIS Technology group were involved in collecting and generating ArcGIS maps of possible sources of non-point source pollution within Perry County. Kaycee Erzfeld completed the mapping of all the current and historical cemeteries in the county. Eli Bonhert completed the mapping of all the current and historical mines and quarries in the county. Bridgett Schumer completed the mapping of all the current and historical sewage and waste facilities and lagoons in the county. The three 4-H members were recognized for their hard work and willingness to undertake the project with certificates of appreciation and \$25.00 gift certificates at the annual 4-H Award Ceremony. The certificates were sponsored by the PCSWCD and the MDC with 319 mini-grant funds for karst education awarded by MO DNR.

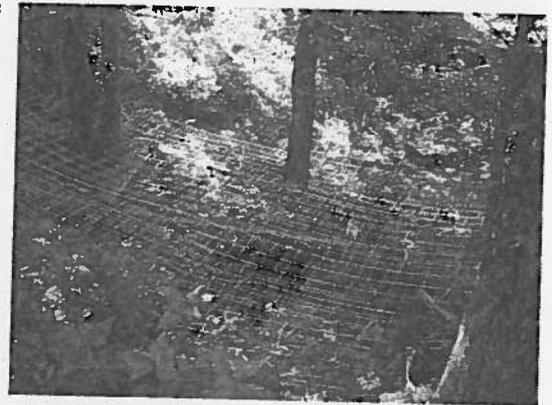
### **Girl Scout Storm Drain Stenciling Project**

Girl Scout Troop 194 finished stenciling the storm drains in Perryville this summer. The storm drains of Perryville were stenciled with "Drains to Cave" or "Drains to Stream." The Girl Scouts accepted this project as their community awareness project for their Bronze Awards. The Bronze Award is the highest award (badge) a junior girl scout can attain. Stencils and paint were provided by the PCSWCD and the MDC with 319 mini-grant funds for karst education awarded by MO DNR.

## **Sinkhole Filter Strips and Exclusions**

Lawrence Buchheit utilized the CP-22 cost-share program to convert a crop field with 5 sinkholes to grass and trees. The field conversion will provide excellent runoff filtration of water by removing contamination before entering the sinkholes and ultimately the groundwater.

Melvin Kluender was able to participate in a cave exclusion cost-share after his daughter-in-law, Deanna Kluender, mentioned the sinkhole during the 2008 Well Water, Cave Life, and the Human Connection teacher workshop. Melvin graciously allowed the workshop participants to visit the sinkhole with a pit cave entrance during a workshop fieldtrip. After the workshop, a gate system was placed over the top of the sinkhole to continue to allow air exchange, movement of bats and other organisms, and flow of water while preventing people from entering a cave with a dangerous entrance. The sinkhole exclusion was a 100% cost-share project sponsored by the MDC as matching funds to the 319 grant funds for karst protection awarded by MO DNR.



## **Riparian Corridor**

The City of Perryville agreed to plant a riparian buffer along Cinque Hommes Creek at the Perry County Wastewater Treatment Plant. The riparian corridor will stabilize current and prevent future stream bank erosion along this section of Cinque Hommes Creek and help preserve Mystery Cave Resurgence. The resurgence for Mystery Cave is on the other side of Cinque Hommes Creek from the Treatment Plant. The MDC provided 3,080 trees, the planter, and labor to plant approximately 10.2 acres. The City of Perryville provided the tractor and will mow between the trees for a minimum of three years and allow the trees to grow for a minimum of 15 years. Treatment Plant personnel have been very helpful with the 319 project and have allowed access to the resurgence and the creek during the week and weekends for the last three years. The riparian corridor was sponsored by the MDC as matching funds to the 319 grant funds for karst protection awarded by MO DNR.



**2 - GREAT PLAINS NO-TILL DRILL**

10 ft. - 7 ½ inch spacing

(will do soybeans, milo, wheat, alfalfa, clover, fescue, orchard grass)

**\$8.50 AN ACRE**

(\$100.00 Minimum Charge)

OR

**7 FT. GREAT PLAINS NO-TILL DRILL**

with warm-season grass box

**\$8.50 AN ACRE**

(\$35.00 Minimum Charge)

**FINN MULCHER**

**NEW - TAILGATE MULCHER**

Trailer mounted, ideal for yards, conservation practices  
and road cuts.

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To schedule call Karen at  
Perry County Soil & Water Conservation District  
547-4077

**Don't Let Timber Prices Drive Your Forest Management**

Although timber prices are currently low, it does not mean you should forget about your woods. Timber management is a long term investment, and needs to be planned carefully to maximize your profits over time. So even if you are not planning to harvest, take the time to develop a good management plan with a professional forester. A forester will help determine what you currently have and what your potential is for the future.

If your trees are young and immature, or you just salvaged storm damaged timber, it is a great time to invest in forest improvement practices in your woods. The cost-share programs provided by the NRCS help invest in the quality of your woods. Forest improvements give you immediate wildlife benefits and long term economic gains for you and the following generations.

Currently most woods in this area are not being managed or are not being managed to their maximum potential. So take this opportunity to start with a good management plan from a forester or improvement practices through the NRCS. Contact Mike Keeley, MDC Resource Forester, at 573-547-4537 or the NRCS office at 573-547-4077 Ext 3 for more information.

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