



THE UPPER WHITE RIVER REVIEW

*The Newsletter of the South Missouri Water Quality Project, a USDA-NRCS Water Quality Office
Providing Conservation Solutions To Non-Point Source Water Pollution.*

Clear...Concise...and to the Non-Point

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Stewardship Compass by Steve Hefner



Steve Hefner, South Missouri Water Quality Project Team Leader

Scientists use the term 'ecology' to describe how living things interact with their environment. Energy is required for life. While some may think that an early morning cup of coffee is the source of all energy, the sun is really the ultimate source. If you think about it, farms are small 'ecosystems' where all of the living things in biological communities coexist and compete for resources in

order to survive. These living creatures range in size from microscopic bacteria and fungi in soils to large cattle and horses found on Ozarks landscapes.

Studying the biological relationships occurring on farmland is essential for the animal husbandman who

makes a living from what the land will supply their livestock. As plants convert energy from the sun through photosynthesis, consumers take the energy by feeding upon these producers. The transfer of energy is not always efficient and so grazing animals may have to increase intake of a particular plant or try a new more nutritious plant to compensate. These may be risky behaviors for the animal because like us, they tend to behave in a routine manner that has proven to be safe.

Now, during an age where agricultural inputs are so expensive, it is critical for livestock producers to manage grazing animals and landscapes efficiently. Farmers should not neglect the impact of social guidance animals receive from other animals. The classic example involves behavior patterns that young animals learn from 'mom' (e.g. "where should I go," and "what should I eat"). The astute livestock producer should watch, observe, and adjust management techniques to harmonize with the natural ecology present on local farms. For tips on grazing land ecology and animal behavior contact your local USDA Service Center.

Water Issues Collect Representatives Interest Congressmen from Three Midwestern States Convene in Neosho

On April 19, 2010 Representatives Roy Blunt (R-MO), Dan Boren (D-OK), and John Boozman (R-AR) met at Crowder College in Neosho, MO at the annual Water Summit. Water resource presentations from individuals from the University of Arkansas, US Corps of Engineers, the Southwestern Power Resources Association, the U.S. Geological Survey, and the Poultry Federation were provided. Both the quantity

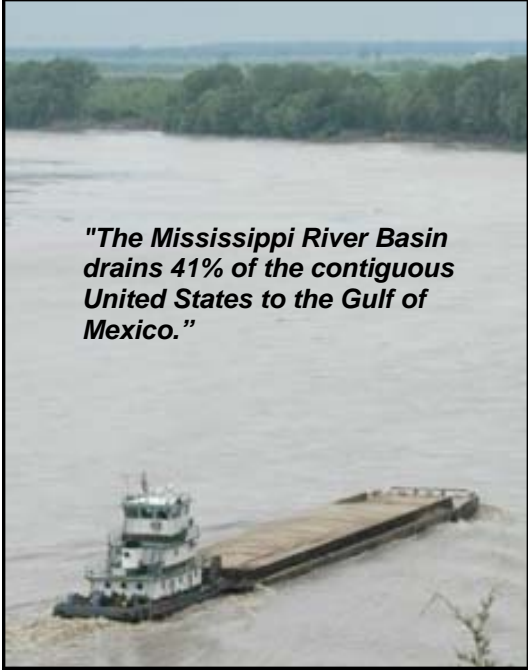
and quality of area water resources are critical for local economies and constituents. The event drew a wide audience including agricultural producers, industry, tourism representatives, state and federal agencies, utility providers, and other citizens. Following lunch, a round-table event allowed participants to voice water resource concerns and brainstorm about possible activities and solutions.

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Additional Funds for Conservation Placed in Mississippi River Basin

Tremendous Partnership Efforts Net Several Proposals from Missouri



"The Mississippi River Basin drains 41% of the contiguous United States to the Gulf of Mexico."

The USDA-NRCS has set aside funds through the Mississippi River Basin Healthy Watershed Initiative for conservation practices that combat agricultural non-point source pollution. Six Missouri watersheds that convey drainage toward the Gulf of Mexico, along with 41 other eligible watersheds in 12 states, have been invited to submit water quality proposals. Each NRCS State Conservationist designated watersheds for this year's 'call for proposals' period which ended on May 3, 2010.

The six Missouri targeted watersheds reside outside of the Upper White River Basin in land north of the Missouri River and in the delta landscapes in Southeast Missouri.

Various sponsors, including the Missouri Department of Natural Resources, local Soil and Water Conservation Districts, and other stakeholders partnered to develop 13 proposals.

NRCS officials in Columbia, MO and Washington, D.C. will review the proposals and award projects shortly based on a systematic set of criteria. Following approval, a sign-up period will be announced and landowners can then participate in the application process for funds through the Environmental Quality Incentives Program, Wildlife Habitat Incentive Program, Conservation Stewardship Program, or the Wetlands Reserve Enhancement Program.

Revisions to Permits Stimulate Nutrient Management Planning

Recent changes from the Environmental Protection Agency regarding permits for Confined Animal Feeding Operations have producers, technical service providers, extension agents, and state and federal organizations scrambling to meet deadlines. By February 2011, CAFO producers operating with general permits will no longer be current. For the next round of permits, producers can either re-apply for a state permit or the National Pollutant Discharge Elimination System permit, each of which require that a site-specific Nutrient Management Plan be developed. Clay Robertson, Resource Conservationist with the South Missouri Water Quality Project, has been

assisting several producers in the development of detailed Nutrient Management Plans. These plans quantify the amounts of manure generated, utilize land risk assessments, and guide producers on how to best land apply these organic by-products. Development of a comprehensive nutrient management plan is quite involved so producers that are in need of a plan are encouraged to begin the process as soon as possible.

"Soil testing is the foundation of a good nutrient management plan."



Mary Giles Receives National Earth Team NRCS Employee Award

Presented during the Earth Team 25 Year Anniversary Celebration, April 26, 2010 in Washington, DC



Left to right: Judy Johnson, retired, NRCS First National Earth Team Coordinator; Michele Eginore, Current National Earth Team Coordinator; Mary Giles, South Missouri Water Quality Project Information Assistant/Field Earth Team Coordinator; Dave White, NRCS Chief; Ann Mills, USDA Deputy Under Secretary for Natural Resources and Environment.

Accomplishments during FY2009

- Mary recruited 150 volunteers who provided 2,901 hours of service essential to the mission of NRCS. (service equates to \$58,745.25)
- She developed partnership projects with local institutions to provide service opportunities for volunteers related to early childhood education, art illustration, and pilot projects in rural areas.

Soil Quality Training Offered to Conservationists

Four soil quality trainings will be offered this summer in various locations throughout the state for USDA NRCS conservationists. The South Missouri Water Quality Staff will be teaming with a Missouri NRCS Grassland Conservationist and a National Soil Quality Specialist to offer the training. Classes will be held in June and July of 2010 and will include both classroom and field exercises.

"Often, simple techniques can dramatically improve the health of soils, said training instructor Ray Archuleta. "Utilizing cover crops, controlling erosion, practicing rotational grazing, and reducing tillage all contribute positively to soil health."



The platy soil structure caused by soil compaction has restricted root growth.

Soil quality is influenced by human activities. One of the foundation goals of the USDA-NRCS is to have high quality, productive soils. This training is designed to provide Missouri NRCS employees with some tools to assist and educate landowners about soil quality.

"Sediment is a leading pollutant of water," said Steve Hefner, Team Leader at the South Missouri Water Quality Project. "It is a precious resource, present in every watershed, and practically impossible to replace

once it is lost. Soils that function properly not only increase agricultural productivity but also improve the quality of water in watersheds."

Bolivar Watershed Group Improves Riparian Corridor

The South Missouri Water Quality Project (SMWQP) recently participated in an urban riparian demonstration project in Bolivar. The event culminated from over a year of assessment (see Summerlin article below) and watershed planning with the Bolivar Community Watershed Improvement Group (BCWIG) and the City of Bolivar. The SMWQP and the Polk County NRCS office have been assisting BCWIG, whose primary interest is Town Branch in Bolivar, Missouri.

Over the winter an opportunity to restore a de-vegetated stretch of Town Branch Creek was presented to BCWIG. A recently disturbed section was eroding and the sedimentation was causing a water quality concern. BCWIG requested a conservation plan from the SMWQP that contained various urban conservation practices. Stabilizing the bank by establishing riparian corridor with shrubs was paramount to deterring future erosion problems.

A work day was organized to install over 200 shrubs which included buttonbush, witch-hazel, spice bush, and ninebark. Assistance was provided by the local Polk County NRCS Office, Southwest Missouri Resource Conservation & Development, the City of Bolivar, and approximately 15 volunteers from BCWIG.



NRCS Resource Conservationist, Curtis Gooch (left), and BCWIG Board Member, John Lower (right), plant shrubs along the Town Branch drainage way.

Joe Summerlin Completes Riparian Assessment



Joe Summerlin

The South Missouri Water Quality Project would like to thank Joe Summerlin of Ozark, Missouri for completing a riparian assessment of the Town Branch watershed in Bolivar.

Mr. Summerlin, a graduate of Drury University assisted the SMWQP through the Earth Team Program as a part of his internship for Drury.

Joe helped to assess riparian conditions by devising a matrix that looked at riparian width, diversity and health. The data helped facilitate and support the urban riparian corridor demonstration project. The information will also be included in a larger watershed management plan for Town Branch.

Kenny Wooten Joins SMWQP Steering Committee



Kenny Wooten

Kenny Wooten recently agreed to serve on the SMWQP Steering Committee. He serves as the Manager/Technician of the Iron County SWCD. His farming knowledge and experience has been a real asset to the landowners of Iron County for the past 18 years.

Kenny grew up on a dairy farm in southwest MO and owns 200 acres and leases 550 acres on which he has a 120 cow/calf operation, both on his own and with his sons. He and his wife have 3 sons and 4 grandchildren.

Kenny will represent Iron and Reynolds Counties on the Steering Committee. Welcome Kenny!

NRCS is celebrating 75 years helping people help the land in 2010

Volunteers Make a Difference Through Education



MSU-West Plains biology students taught by Debra Mayers (front row-center) became Earth Team Volunteers and provided demonstration lessons related to water quality to 585 children and educators in Pre-K, elementary, and middle school classrooms in 8 communities within the watershed. The students are all majoring in education.



During the spring semester, Earth Team Volunteer, Amanda Cowart, a MSU Elementary Education student in Springfield, taught classroom lessons related to plant growth and field day water quality lessons related to macro-invertebrates. She provided lessons to 513 children and educators in 9 communities.



Earth Team Volunteer, Mee Lor, a MSU Art and Design student, completed the layout and design of the children's story book, "Skeeter's Awesome Adventure." The book, written in 2008 and illustrated in 2009 by Earth Team Volunteers, introduces the water cycle.

January-May 2010 STATS

- Communities Serviced Through SMWQP Education Program: **17**

Willow Springs * West Plains * Rogersville
Mountain Grove * Thayer * Winona * Alton
Republic * Willard * Ozark * Chadwick
Eminence * Birch Tree * Summersville
Branson * Battlefield * Gainesville

- Households Serviced: **1098**
- Organizations provided "The Little Acorn" and "The Trash in Chigger County" for use in educating children about natural resources: **8**