



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*

I have found there is nothing like the magic of a canoe to fortify relationships, whether those relationships are people and nature, or people and people. This past Earth Day, I was fortunate to be in a canoe with my oldest teen-aged son participating in a clean-up event at one of our local lakes. When he was a small boy, we spent many hours together on rural streams floating and fishing. As we spent the afternoon dodging snakes and picking up trash, we recalled our fishing battles, especially his famous encounter with a gar on the James River.

Over the years, I have viewed our time spent on streams as a primary method to educate my sons about the outdoors. Our family follows the classic example nationwide of how each generation becomes more re-

moved from the outdoor life of farming. Despite having a century farm in our family, my sons have not had the privilege to daily experience life on this farm. From an early age, I have tried to teach them the importance of agriculture, and how we must continue to grow food for everyone to eat – a basic human need. Because we live several hours from our farm, floating our local streams provided the perfect backdrop to reinforce these discussions.

Although we still do many activities together, we both agreed that we haven't spent enough time on the water lately. For me, spending time on the water provides an excellent "reality check" for our conservation work. Thanks to the efforts of many conservation-minded groups, our community is well informed and motivated to practice conservation. I was pleased to see that the shoreline at our local lake looked pretty good.

This Earth Day I felt good about doing something constructive for our community. I'm not naïve enough to think the small amount of trash we collected significantly enhanced the environment, but I do think the time I invested with my son just might someday pay big environmental dividends. I urge you to get involved in conservation. You might make a wonderful memory.

Grand Opening Showcases Fossilized Bones

Missouri Institute of Natural Science Now Open For Business

A cease order issued by the government on all activities involving explosives following the 9-11 terrorist attack prevented completion of a construction project near Springfield, MO. Blast engineers planned demolition work for a new road and was allowed to detonate only the charges that had been already loaded. That single blast led to the discovery of the oldest fossil cave in North America.

Since that time, science exploration and conservation efforts have been conducted

in the cave. A new Field House Annex has been constructed and will house fossilized artifacts. A ribbon cutting ceremony was recently held on May 5, 2009. Contact Matt Forir, executive director, to schedule a visit (417-883-0594).

*Prehistoric turtle
shell excavated
from the cave with
a puncture wound.*



INSIDE THIS ISSUE:

5th Anniversary Meeting	2
Pilot Project a Success	3
Irrigation Project	4
Riparian Corridor Workshop	4
Report Feral Hogs	4

Commemoration Event Nets Two U.S. Representatives

Blunt and Emerson Receive Briefing about SMWQ Conservation Efforts

“We were pleased to have the opportunity to inform the representatives about the assistance that has been provided to the public regarding conservation.”

Steven Hefner

Members of Congress Roy Blunt (MO-7th District) and Jo Ann Emerson (MO-8th District) recently attended a 5th year Commemoration Meeting on April 14, 2009 of the USDA-NRCS South Missouri Water Quality Project at the Missouri State University Fruit Experiment Station in Mountain Grove, MO. Organized in 2003 through a local Resource Conservation and Development Council, an interdisciplinary staff of conservationists has provided voluntary conservation assistance to property owners and managers to improve water quality in the Upper White River Basin of Missouri.

“Our project area covers parts of 21 counties and two congressional districts in Missouri,” said Team Leader Steven Hefner. “We were pleased to have the opportunity to inform the representatives about the assistance that has been provided to the public regarding conservation.”

SMWQ staff members Robert DeMoss, Clay Robertson, Adam Coulter, and Mary Giles provided brief reports detailing accomplishments. To date the staff has assessed nearly 24,000 acres of forest land, 150 miles of riparian corridor, prepared 6,600 acres of rural nutrient management plans, 645 urban nutrient management plans, assistance in 79 additional urban conservation activities, and implemented a youth water education program to over 5,500 households.

Representative Blunt was instrumental in the creation of the federally funded office to offer site-specific, time-tested technical assistance for conservation practices. He indicated in a recent editorial published by the Springfield News-Leader that the office, “can be a model for the nation in its pursuit of empowering citizens and government to work together to ensure a rising quality of water.”



U.S. Representatives, Jo Ann Emerson (left) and Roy Blunt (right) at the SMWQ 5th Anniversary Commemorative Meeting

High School and College Earth Team Volunteers Join Forces

Pilot Project in Hurley Promotes Water Quality Education

Missouri State University (MSU) students joined forces this spring with high school students enrolled in the Missouri A+ program to teach fundamental natural resource concepts to young children in a small rural town in southwest Missouri. The high school and college students were all enrolled as Earth Team volunteers through the South Missouri Water Quality Project (SMWQ) in Ozark.

"Cool!" "Awesome!" are just some of the comments heard in the second grade classroom in Hurley, MO as MSU student, Whitney Kramer, led the children in a hands-on experiment depicting evaporation during the water cycle.

A room was darkened in an adjacent building as Lindsey Hoskins, another MSU student, divided the children in her kindergarten classroom into groups and asked each group to shine the light from their flashlights through bottles of clean and dirty water and discuss what they saw and where they might find that type of water.

Just down the hall, Kim Brewer, also a MSU student, helped excited four and five year old children with their coats as they lined up to go in search of living things while visiting the nearby creek. While they were having fun, they were introduced to an important concept: ALL LIVING THINGS NEED WATER TO LIVE.

The SMWQ Project, located in Ozark, MO, created the Earth Team Early Childhood Education Program four years ago and has had an ongoing partnership with students in Dr. Denise Cunningham's, "Methods of Teaching Science and Math" class at Missouri State University. Each semester students are involved in developing and teaching lessons related to water and present them in primarily urban practicum classrooms within the watershed. All MSU students receive academic credit for their participation in addition to serving as Earth Team volunteers.

However this semester, these three MSU students jumped at the opportunity to be involved in a pilot project which placed them in practicum classrooms in a rural school and teamed them with Missouri A+ high school students. Lindsey, Kim and Whitney developed lessons that introduced a water concept, and also developed four supporting activities that the high school students led in follow-up sessions.

Hurley high school principal, Lisa May, and elementary principal, Josh Phillips were excited that Hurley Public School was invited to be a partner in this Earth Team volunteer joint endeavor. Josh Phillips said this about the program, "I have been impressed with the multiple facets of this program. We are not only developing the skills of future teachers, but are teaching state required content in a stimulating manner. Our high school students have learned a great deal from the college students and in turn have produced high quality lessons themselves. The result has been classrooms full of eager young children learning in a highly engaging and hands-on way."

The opportunity to participate in the pilot project also appealed to high school students, Anna Wolfe, Billie Carsten, Josey Payne, Macey Thompson, and Kelsey Frossard, because the service hours involved in the program contributed toward the mentoring requirements of the Missouri A+ program. In addition, their Earth Team service was documented allowing them to cite it on future college applications as community service.

To date, the Earth Team Early Childhood Program has reached over 5,500 children in 19 communities in the Upper White River Watershed. This adaptation of the program supports the SMWQ Project's overall outreach strategy to extend the Early Childhood Program into the rural areas of the watershed.

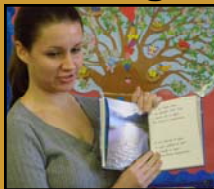
Scenes from the Water Partnership

Planning...



Josey Payne (left) and Whitney Kramer (right) planning a lesson about evaporation

Teaching...



Lindsey Hoskins teaching a lesson about pollution

and ... LEARNING!



Kim Brewer explaining that living things need water

Excited four and five year old children exploring a creek near the school



Conservation Projects and Workshops

Irrigation Project Ready to Launch

An increased demand from an ever-growing population in southwest Missouri has many groups competing for water—residents, business/industry, agriculture, and power generation. While the last two years have brought favorable rains, local planners know that dry weather is inevitable. The Southwest Missouri Resource Conservation and Development Council is sponsoring a pilot irrigation project in southwest and west-central Missouri with assistance from the Missouri Department of Natural Resources (DNR), and the USDA-South Missouri Water Quality (SMWQ) Project.



Rita Mueller
Southwest Missouri
RC&D Coordinator

“This project will promote sound irrigation conservation to agriculture producers,” said SWMO RC&D Coordinator Rita Mueller. “A pilot project on six farms will begin this season and monitor irrigation application with water flow meters. The Missouri DNR has supplied the funding for the purchase of the meters and the SWMQ Project has prepared the conservation plans for over 7,000 acres. The information gathered will be important in documenting the amount of irrigation needed in the future by farmers to produce food.”

Irrigation of crops in Missouri is considered supplemental and is highly dependent upon rainfall. Rainfall shortages are usually experienced during the summer months of the growing season. Irrigation use data will be correlated with weather and crop data to create a more accurate picture of irrigation requirements for the region.

“Agriculture is indeed a significant component. If we can find additional funding, we are hopeful to expand our efforts next season. Producers have a strong desire to minimize inputs and be as efficient as possible,” said Mueller. “This project should help us learn how to better serve those needs.”

Riparian Corridor Workshop



SMWQ Project Forester Robert DeMoss (sitting) demonstrates tree planting techniques at a Webster County Soil and Water Conservation District (SWCD) Riparian Corridor Workshop. The workshop was held on March 27, 2009 at the Harmes Farm near the confluence of Panther Creek and the James River. Conservation practices included a willow staking on the bank, riparian forest buffer, and livestock exclusion. For more information contact Laura Stratton at 417-468-4176 x3.

Feral Hog Problems on the Rise

Billboard Campaign Educates Public



Feral hogs are destructive to land

Local, state, and federal organizations are urging Missouri citizens to report feral hog sightings across the state. Located on both private and public land, feral hogs have been sited in 55 of the 114 counties in Missouri. Established populations are primarily south of the Missouri River.

Feral hogs damage land and water resources along riparian areas, consume field crops, and root in hay and pasture lands. With a high reproductive rate and potential for carrying disease, efforts to control the population are currently being made by USDA Wildlife Services, Missouri Department of Conservation, USDA Forest Service, and the US Army Corps of Engineers.

Because the majority of Missouri land is privately owned, it is important for state and federal agencies to work closely with private landowners to control feral hogs. The Southwest Missouri Resource Conservation & Development Council will begin a billboard campaign to provide the public with information to report sightings. Billboards will be placed along Interstate 44 and State Highways 60 and 67. In Missouri, sightings should be reported to USDA Wildlife Services (573-449-3033 x13), Missouri Department of Agriculture (573-526-2090), or the Missouri Department of Conservation (573-751-4115 x3147).