



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Protection Program

Minutes

March 18, 2008

WATER QUALITY COORDINATING COMMITTEE

Department of Natural Resources Conference Building
1730 E. Elm
Bennett Springs Conference Room
Jefferson City, Missouri

March 18, 2008

10 a.m.

MEETING AGENDA

Southwest Missouri Resource Conservation and Development Water Quality Projects, Rita Mueller, Southwest Missouri Resource Conservation and Development

Watershed Resident Involvement in Gaining Ownership of Watershed Plans, Brad Powell, Bates County Soil & Water Conservation District (representing Osage Valley Resource Conservation and Development and the Citizens Watershed Committee)

Soil Survey Update Work, Wyn Kelly, Soil and Water Conservation Program, Department of Natural Resources

Dynamic Soil Properties, Dick Henderson, Soil Scientist, Soil and Water Conservation Program, Department of Natural Resources

Other

Agency Activities

Meetings & Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

March 18, 2008

DNR Conference Center
1730 E. Elm Street
Jefferson City, Missouri

MINUTES

Attendees:

Sarah Fast	DNR, Water Protection Program	Bob Ball	USDA-NRCS
Darlene Schaben	DNR, Water Protection Program	Don Schuster	Osage Valley RC&D/NRCS
Rita Mueller	Southwest Missouri RC&D/NRCS	Danny Hahn	Citizens Watershed Committee
Tucker Fredrickson	DNR, Water Protection Program	Randy Pike	Osage Valley RC&D
Georganne Bowman	DNR, Water Protection Program	Brad Powell	Bates County SWCD
Dick Henderson	DNR, Soil & Water Conservation Pgm	Ed Galbraith	DNR, Water Protection Program
John Johnson	DNR, Water Protection Program	Kimberly Willis	City of St. Joseph
Greg Anderson	DNR, Water Protection Program		
Terri Brink	EPA, Region 7		
Wyn Kelley	DNR, Soil & Water Conservation Pgm		

Introductions were made.

Introduction of speakers:

Bob Ball said that Resource Conservation & Development (RC&D) is one of several programs administered by USDA NRCS. They have been in existence since the early 1960s. There are eight active RC&D project offices authorized by the USDA Secretary and three other areas are proposed. Contact Bob or a RC&D Coordinator if you would like more info about the RC&Ds. The Coordinators work through locally-led councils.

The next speakers will talk about the involvement of RC&Ds in watershed projects. USDA has established goal criteria for the RC&D program. One is working with watershed projects or area wide conservation plans.

Southwest Missouri RC&D Water Quality Projects, Rita Mueller, SW MO RC&D PowerPoint Presentation

Rita talked about several projects that the Southwest Missouri RC&D is working on that involved DNR and EPA. The Southwest MO RC&D includes 15 counties. Some of the local concerns include water quality, forestry, grassland, and fire protection. Rita said it took a lot of partners working together to complete these projects and make them successful. She has worked with NRCS since 1993. The Poultry Dead Bird Composter project included demonstrating feasibility of composting poultry mortalities. The Grassland Specialist Position project was a partnership with the Top of the Ozarks RC&D that demonstrated management intensive grazing. Upper Niangua Management Intensive Grazing Demonstration project included doing intensive grazing, fencing, watering, and lane management demonstrations on dairy farms. Because of concerns expressed in Table Rock Lake and James River Basin, the James River Basin Partnership was formed to clean up that area. The Upper Shoal Creek Poultry Litter/Nutrient Management project helped to manage the poultry litter in the area. They did soil testing and litter testing for farmers. Nutrient Management Plans were developed for farmers. Expanding past just looking at the poultry litter, the Elk River Water Quality Demonstration project was developed. Tree planting and stacking sheds were demonstrated. Educational placemats were distributed to several restaurants in the watershed. Another project was an Energy grant for the Elk River Litter Burner Energy Study, which was used to purchase three litter burners, instead of farmers purchasing expensive equipment that may not work. The plan was to heat the poultry houses by burning the litter. What was planned to be a demo project turned into a challenge.

With DNR targeted funding in the Elk River/Shoal Creek area, the Newton and McDonald County Soil & Water Conservation Districts sponsored a grant to do some grazing systems, alternative watering, lime, nutrient management, and stacking sheds for a restoration project. Litter was transported to other area crop farmers.

They worked with Congressman Roy Blunt's office to propose legislation to start the South Missouri Water Quality Project office. The office includes a team leader, urban conservationist, forester, resource conservationist, and an outreach staff person. Having this office provides more technical services.

The RC&D provided their expertise on other projects. The City of Marshfield had a 20-year plan for their sewage treatment system. After 10 years into their plan, they requested assistance from the SWMO RC&D, who suggested involving the citizens. A citizens committee was started along with a technical committee. The way everything worked, the City felt they saved \$2 million. They also assisted the Mark Twain School district to replace a failing lagoon with a new sewage treatment system. Other projects they worked on included a Septic System Booklet Distribution, Forestry Management, and Shoal Creek Septic Tank Cleanouts. A new 319 grant is pending for a Shoal Creek On-site Sewage System Restoration project.

When asked if the targeted watershed approach was helping with focusing watershed efforts, Rita felt that several groups were benefiting.

Watershed Resident Involvement in Gaining Ownership of Watershed Plans, Brad Powell, Bates County Soil & Water Conservation District (representing Osage Valley RC&D and the Citizens Watershed Committee)
PowerPoint Presentation

Brad said the Osage Valley RC&D (OVRC&D) has been active in numerous watershed projects. Brad focused this presentation on the Marais des Cygnes, Marmaton and Little Osage River Watershed Management Action Plan, particularly the public participation.

The OVRC&D acted as an administrator of the 319 projects for watershed work. They have helped with writing SALT grants and letters of support. Watersheds sometimes consume a larger area than a county line and sometimes cross state lines. It's important to have public participation. If a community-oriented group is made up of various community leaders, and you approach the community, there is an opportunity to have a plan that is developed, agreed to, and administered by them and for them. Brad said you may have to start with the basics. It takes several technical advisors and representatives from several disciplines. For this plan, it involved representatives from Kansas, since the watershed crossed the state line. Watershed management/planning is still a new concept to some. It is important to know the area. The Marais des Cygnes, Marmaton, and Little Osage rivers are vital natural resources to residents in 17 counties in east central Kansas and west central Missouri. The resources for this area include cropland (48%); pasture, hay, CRP land (37%); forested land (12%); developed land areas (3%). Approximately 83% of the soils mapped in these three subwatersheds is classified as prime ag lands. One of the concerns or issues in these subwatersheds is water quality. Portions of each subwatershed are listed on the state's 303(d) list of 2002. Some of the contaminants include sediment, nutrients, low dissolved oxygen, BOD, ammonia nitrogen, and sulfates. Maps aide in visualizing the areas. Citizens need to know and understand what they want to accomplish. The purposes of the Plan are to continue the reduction of the contaminants and continue monitoring the sources. The goal of the Plan is to ensure the long-term quality of water is protected and restored where necessary to a healthy watershed for all residents. The Plan is a living document.

Public meetings were conducted across the watersheds. Three subwatershed issues/concerns were prioritized and forwarded to the Technical Committee. These were developed into ten major issues/concerns. The participants identified 154 separate watershed issues. The meeting participants prioritized 61 of those issues into the top ten issues for the technical advisory committee to develop into the draft management plan. The public voted on the order, which were erosion/soil loss, solid waste management, water quality & quantity, public info & education, mines and quarries, farmland conversion to residential land use, habitat loss both of aquatic & upland, agricultural

systems (CAFOs & AFOs; grazing vs. cropping systems), private/public interaction, and residential urban. The Technical Committee drafted the Plan and sought review of the watershed residents.

Public education was an integral part of all aspects of the Marais des Cygnes watershed management planning effort. These included field days, demonstration projects, community-wide festivals, newsletters, educational workshops, watershed tours, best management strategy presentations, etc. Educational efforts were targeted at elected officials, city residents, rural residents, and agricultural producers. Private and public partnerships are also important.

The plan included six goals. It will be the Citizens Watershed Committee that has the power to carry out the actions to complete these goals as they see fit. A number of people from many facets of watershed experience were involved and responsible for completion of the Plan. There were ten support team members involved from Kansas. Public meetings and communication are important. Brad thanked everyone that had a part in making the plan possible, including DNR & EPA for Section 319 nonpoint source funding.

A copy of the Plan was routed around the room. Copies can be obtained by contacting the Bates County SWCD or Osage Valley RC&D. Having this Watershed Management Action Plan in place has made it easier for them to obtain other funding.

Brad said they received an EPA Targeted Watershed Initiative grant for a bi-state project with Kansas. Early December a signing ceremony was held where they received a "big" check for \$900,000 for the project. Match will be provided in the amount of \$300,000 for a project total cost of \$1,200,000. They are waiting on approval of a project for Mound Branch.

In answer to a question of how long this project has taken from start to finish, Don Schuster thought it had taken approx. 20 months. Brad said that to get from the Plan to identifying the critical source areas and implementation, the Citizens Committee plays an important role.

Soil Survey Update Work, Wyn Kelly, SWCP, DNR Handout:

The initial soil survey was completed on Jan. 1, 2002. Since then, updates on the surveys have been based on resource areas, whereas the initial soil survey was on county-by-county basis. This has been a big focus of their work over the last several years. Currently, one-half of their time is spent on technical soil assistance activities; one-half is spent doing update work. They are trying to get more targeted toward individual needs of soils information. They work with district employees to train them on basic soil information as well as the soil survey product to help them understand its use and application. Through conservation education, they assist FFA with soil judging contests, conservation field days, and envirothon competitions.

Wyn said they are currently in the planning time of year, so if anyone knows of projects or something that would benefit from soil consulting or more detailed soils information, let him know. It may be possible to work together and develop a project to submit through the process to get staff and resources allocated. For example, a Missouri River mitigation project with NRCS and COE, SWCP has been contracted to do some very intensive mapping on some areas where MDC is planning to do wildlife management. They are interested in wetlands development; the most productive crop production areas still maintaining actual crop production on the sites; different soil property information that may relate to both tree and shrub species. Another example is doing intensive mapping for MDC and DNR Parks on natural communities. SWCP is also doing a research-based project on better quantifying and classifying the glacial till for DGLS.

A comment was made that the soil scientists generally have a good relationship with area landowners and know the counties. They are a great resource.

Dynamic Soil Properties, Dick Henderson, Soil Scientist, SWCP, DNR
PowerPoint Presentation

Dick said phosphorus moves through soils by erosion. The dynamic soil properties study is part of a National Initiative to quantify differences in soil properties as affected by use of the soil resource. The objectives of the study was to quantify dynamic soil property values for two contrasting land uses on a single soil survey map unit component then determine what values differ between land uses, and in what ways. Data was used from UMC's Soil Characterization Laboratory and the National Soil Survey Laboratory. He talked about the types of soils used and the sites selected. He showed pictures of a typical forest site and a pasture site. Foresters and grassland specialists did the detailed site analysis of the composition and productivity of the species that occurred at each site. Three soil properties were selected for this presentation: depth to the fragipan, a soil physical property; weighted average of organic carbon, a soil chemical property; and weighted average of pH (water), a soil chemical property. He showed the results for both forest and pasture. Following are some of the lessons learned: they improved their knowledge (and database) for extensive fragipan soils; they are starting to learn, more precisely, how vegetation and management affects these soils; they are starting to analyze soils in an ecological context; and expect more developments on soil-ecological correlations for Missouri in the near future.

Agency Activities

Brad Powell expressed appreciation for the opportunity to speak and the WQCC's efforts. Watershed management planning is about everyone working together.

Randy Pike felt leadership for watershed management planning is quite a challenge, along with promotion. Marais des Cygnes River has about 80% of the drinking water for the county. People will buy-into the plan when it affects the water they drink.

Bob Ball attended a very successful meeting on the Lower St. Francis River basin last month, which was hosted by the Conservation Technology Information Center and coordinated and sponsored by the Bootheel RC&D Council. Approx. 12 local producers attended. They had to decide what they felt needed to be changed within that watershed that would make the biggest impact on landowners to reduce the hypoxia going into the Gulf. The biggest issue they came up with was soil tests. They felt they were taking more soil tests than anywhere in the state. There were about 60% of landowners doing soil testing on a regular basis and developing a nutrient management plan. One landowner who used UMC's variable rate sensing technique felt he saved \$40,000 in fertilizer on his operation. There will be future meetings in that watershed. Bob will let us know when they are scheduled.

Wyn Kelly reminded everyone to submit their project proposals. Sarah said if anyone would be submitting a 319 proposal that included soil survey work, this may be a good opportunity to get on Wyn's list.

Greg Anderson thanked all the speakers and especially Brad for speaking on watershed management planning efforts. Greg said they have high hopes for watershed planning and want to focus efforts rather than taking a shotgun approach as was the practice in the past. The plans that include the nine elements will make those watersheds eligible for additional funding. Greg said they also have high hopes of working with the Rapid Watershed Assessments. Assessments are one issue that keeps coming up when speaking about watershed plans.

Greg also mentioned the hope of getting the 2008 319 RFP out relatively soon, maybe in May. The 2007 Targeted RFP recommendations will be going to EPA soon.

Dick Henderson added that the location of their work was in the backslopes of the James River Basin as well as the Niangua River system.

Georganne Bowman announced the Lakes of Missouri Volunteer Program (LMVP) is celebrating its 15th anniversary. Since 1993, volunteers have been collecting water quality data on lakes. An event is planned for April 19 in Jefferson City. Let Georganne or Tony Thorpe know if you know of a lake that needs monitoring. They will provide equipment and get you started sampling.

Georganne also shared an updated minigrant brochure. Minigrants are now awarded up to \$10,000/project with a project length of two years. Match is still 40%.

Rita Mueller said the soil potential rating or soil index map is now available for any county in the nation.

Kimberly Willis said St. Joseph is in the planning process of developing a watershed program.

Sarah talked about agenda topics for the next month. Dennis Meinert, SWCP, will talk about biomass energy production and soils with BMP development; Dennis Figg, MDC, will speak on conservation areas; and Steve Mahfood is invited to speak on the Nature Conservancy's current watershed efforts. Let Sarah know if you have ideas on topics or speakers for other meetings.

Meeting adjourned.