Missouri Department of Natural Resources

Water Quality Coordinating Committee
Water Protection Program

Minutes

Jan. 15, 2008

WATER QUALITY COORDINATING COMMITTEE

James C. Kirkpatrick State Information Center
Interpretive Center
600 W. Main Street
Jefferson City, Missouri

Jan. 15, 2008

10 a.m.

MEETING AGENDA

Antidegradation and Nonpoint Sources: How One Affects the Other,
Phil Schroeder, Water Protection Program, Missouri Department of Natural Resources

Groundwater Monitoring Update – State Efforts,
Ryan Mueller, Water Resources Center, Missouri Department of Natural Resources

Pesticides and Water Quality DVD – Paul Andre, Missouri Department of Agriculture

Other

Agency Activities

Meetings & Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

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Attendees:

Sarah Fast	MoDNR, Water Protection Program	Anne Peery	MoDNR, WPP, TMDL Unit
Darlene Schaben	MoDNR, Water Protection Program	Donna Menown	MoDNR, WPP, TMDL Unit
Phil Schroeder	MoDNR, Water Protection Program	Robert Brundage	Newman, Comley & Ruth PC
Randy Lyman	City of Springfield Public Works	Bryan Hopkins	MoDNR, Office of Director
Liz Grove	Clarence Cannon Wholesale Water Commission	Bob Bacon	Environmental Resources Coalition (ERC)
Bob Ball	USDA-NRCS	Betty Wyse	ERC
Jack Dutra	Syngenta	Candy Schilling	ERC
Paul Andre	MO Department of Agriculture	Steve Mahfood	The Nature Conservancy
Cindy DiStefano	MO Department of Conservation	Cecilia Campbell	MoDNR, Water Protection Program
Tim Rielly	MoDNR, Environmental Services Pgm	Trish Rielly	MoDNR, Water Protection Program
Terri Brink	EPA, Region 7	Stacia Bax	MoDNR, Water Protection Program
John Johnson	MoDNR, Water Protection Program	Steve Rudloff	MO Limestone Producers Assn
Greg Anderson	MoDNR, Water Protection Program	Ryan Mueller	MoDNR, Water Resources Center
Pete Davis	EPA, Region 7		

Introductions were made.

Water Resources Monitoring and Assessment, Ryan Mueller, Water Resources Center, Missouri Department of Natural Resources PowerPoint Presentation

Meaningful water planning should include an accurate assessment of water resources availability, determination of water usage, promotion of water conservation practices, and overuse prevention measures. As part of the state's budget for Fiscal Years 2007 and 2008, Governor Blunt and the Missouri General Assembly approved $1.6 million to enhance water resources assessment and monitoring statewide. The funding is designated for the addition, operation, and maintenance of 35 new stream gages and 80 new groundwater level monitoring wells. The new stream gages collect regional flow data useful for assessing drought and flood conditions and in-stream flow needs. Twenty-nine groundwater monitoring wells were added during FY07 and the department is adding approximately 50 wells during FY08. Ten wells have been drilled near major water users in southwest Missouri to document groundwater level change in the Ozark and Springfield aquifers. Real-time data collected by stream gages and groundwater wells are available to the public on-line through the department's Water Resources Center Web site.

Ryan Mueller is the Director of Water Resources for the Missouri Department of Natural Resources. Ryan is a graduate of the University of Missouri-Rolla (Geological Engineering) and is registered as a Professional Engineer in Missouri.

Antidegradation and Nonpoint Sources: How One Affects the Other, Phil Schroeder, Water Protection Program, Department of Natural Resources
Handout: PowerPoint presentation

Phil said the Antidegradation Rule has been in effect since 1977. The Antidegradation Implementation Procedures are now in rulemaking but should be effective August 2008. The rule established protection "tiers." Tier 1 - Manage water quality to protect beneficial uses; Tier 2 - Protect existing water quality or justify degradation; and Tier 3 - No degradation allowed. There are approx. 40 waters in Tier 3, including the Outstanding National and State Resource Waters. These are waters of the highest quality. Tier 1 includes waters containing pollutants that are at or near water quality standards. Tier 2 are waters where water quality is significantly better than the criteria for use protection. Phil explained that Assimilative Capacity is a waters ability to assume additional pollutants without an impairment to beneficial uses of the water and can be diagramed as the difference between the water quality criterion level and the existing water quality level. Only Tier 2 waters have assimilative capacity.

Phil showed a flow chart of how Antidegradation procedures can influence Enforcement, Permitting, and Water Quality Assessments. Degradation is justified only when a discharge is "necessary," as determined through an alternatives analysis, when the discharging activity has a socio-economic importance to the community, and when approved plans for the management of nonpoint sources are implemented. A nonpoint source review is beneficial during the permitting because it promotes a watershed approach to water quality management, supports TMDL implementation, and promotes efficient use of funding. Phil talked about several questions regarding nonpoint source plans that a permit writer will ask himself/herself during a review. He talked about the process a permit writer goes through after receiving an application. Once the pollutant of concern is identified, they must then find out if a nonpoint source plan is in effect. If so, they must find out if the plan is being implemented as written. If a plan is not in place, they can proceed with the permit review. If an approved plan is not being implemented as written, the permit writer will explore the need to correct the deficiency before proceeding with the permit review. The review must also determine whether or not the discharge will meet water quality standards. It is important to have coordination between permit writers and nonpoint source managers. The goal is to achieve water quality criteria. More information on Antidegradation can be found on the following web links.

http://www.dnr.mo.gov/env/wpp/cwforum/adv-antidegradation.htm
http://www.dnr.mo.gov/env/wpp/rules/wpp-rule-dev.htm

In response to a question regarding water quality trading, Phil said the department has looked at it but no decisions have been made.

Phil agreed to update the group at a future Water Quality Coordinating Committee meeting on the process and how it's working.

"Pesticides and Water Quality" DVD, Paul Andre, Missouri Department of Agriculture
DVD

The DVD was put together by the Missouri Department of Agriculture and University of Missouri Extension. Paul said this could be a stand-alone education program or info for commercial applicators. Funding assistance was provided by MDA through a grant from the EPA Pesticide Program.

The DVD defined pesticides. Regulations for pesticides and water quality are set by EPA and U.S. Department of Agriculture. These regulations include the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA); Clean Water Act; Safe Drinking Water Act; and the Food Quality Protection Act. State agencies (DNR, MDA, MDHSS) have local responsibility of enforcing these acts. The DVD explained each act and how the regulations are to be followed. It also explains how pesticide practices can affect water quality. It's important to know and study the pesticide label so it gets used and applied properly. Weather conditions must be

considered before applying any pesticide. Proper storage is also important. Homeowners should be aware of Household Hazardous Waste Collection programs and sites in their area. This allows for environmental safe disposal of unwanted or unused pesticides. It is recommended to consider integrated pest management before purchasing pesticides.

The DVD talked about watersheds and pesticide use and the cumulative affect of pesticide usage. It is our responsibility to protect our water resources from contamination. In parts of the U.S., urban residential pesticide use has shown to have as big an affect on water resources as agricultural use. In Missouri, ground water is one of our most important natural resources. Changes in ground water levels can be attributed to human consumption and natural occurring events. DNR has been monitoring ground water levels since the mid-1950s. Currently pesticide contamination in ground water is not common in Missouri. When it does occur, it is usually attributed to poor management of nutrients and/or pesticides.

Improperly constructed wells can create a conduit for undesired materials to enter and pollute ground water supplies. There is a correlation of the geology of the state and the reduced water quality and quantity of the ground water. The central and southern parts of the state have more karst geology and have a higher quality and quantity of groundwater resources. It is important to consider the impacts that nutrients and pesticides have on groundwater and surface water resources. Pesticide users must take the measures needed to prevent contaminating communities' drinking water and other resources. To protect water quality, farmers are using alternatives to pesticides, such as grass filter strips, setback distances, cover crops, and crop rotation. Spot spraying is used instead of spraying the entire field.

For more information on proper use of pesticides, contact the University of Missouri Extension or the Missouri Dept. of Agriculture Pesticide Program.

Paul had copies of the DVD available.

Agency Activities

Sarah Fast said the February meeting will be held in Columbia. Agenda topics will include Dan Downing talking about helpful hints for establishing and working with local watershed groups, Kenda Flores will talk about best management practice work with local landowners in the Middle Meramec, and best management practices forestry research by John Bowders. For the March meeting, she is working on getting topics on the NRCS RC&D work and soil science work in southwest Missouri. For April, a possible presenter would be The Nature Conservancy.

Sarah also informed the group that Pete Davis, EPA, has been reassigned to be the 319 Coordinator for Nebraska. Terri Brink is now the Coordinator for Missouri.

Donna Menown reminded the group of the Missouri Natural Resources Conference, Jan. 30 – Feb. 1, at Tan-Tar-A.

Greg Anderson mentioned the 2008 Request for Proposals should be available soon.

Terri Brink said the 2008 Watershed and Wetlands Conference will be April 7-11, 2008, in Kansas City. The deadline for papers is Feb. 14, 2008.

Liz Grove said the Missouri Water Environment Association Annual Meeting will be March 30 – April 2, 2008, at Tan-Tar-A, Lake of the Ozarks.

Bob Ball said the first segment of the Rapid Watershed Assessments is completed. They are struggling to get them on the web. The University is doing four more but asked for an extension of time. They will then have nine done and ten more are in the works. Those include: Bear-Wyaconda, Little Osage River, Spring River, Upper Grand River, Lower Marais Des Cygnes, Blackwater, Lower Missouri River, Pomme de Terre, Whitewater, and Eleven Point River.

Steve Mahfood said there will be an Ozark Summit May 13 and 14 in West Plains. This is a two-day conference and includes most federal agencies, Missouri Department of Conservation, University of Missouri, and hopefully, the department.

Bryan Hopkins mentioned he was attending a hypoxia coordinating committee meeting in Washington D.C. and the national task force meeting in late Feb. in Chicago. These are both strategic planning groups for a federally coordinated basin wide Hypoxia initiative. (The Public Meeting of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force will be held on February 28, 2008, in Chicago, Illinois. The purpose of the meeting is to agree to the language of the draft Action Plan and draft Annual Operating Plan, and to agree to publish the Action Plan and Annual Operating Plan.)

Anne Peery noted that the TMDL Unit met the number of TMDLs to be completed by the end of 2007 according to the Consent Decree. Ten TMDLs are required for 2008 and 22 for 2009, which is the deadline to complete the Consent Decree numbers. The 2008 TMDL schedule is available on the department's TMDL Web page. Anne attended a meeting in St. Louis along with other DNR staff, MDC, COE, and EPA regarding contaminated sediment. Some money will be available from an ASARCO settlement. COE may build a micro model (scale model) for part of Big River to determine the effect of various sediment removal scenarios.