



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Protection Program

Minutes

August 21, 2007

WATER QUALITY COORDINATING COMMITTEE

USGS Columbia Environmental Research Center
4200 New Haven Road
Columbia, Missouri

August 21, 2007
10:00 a.m.

MEETING AGENDA

The Missouri TMDL Process - John Hoke, DNR, Water Protection Program

UMC Rapid Watershed Assessment Project - William Kurtz and Chris Barnett, UMC

Show-Me Yards: Green Lawns/Blue Waters – Having Both the Smart Way –
Mona Menezes, City of Columbia

Other

Agency Activities

Meetings & Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

August 21, 2007

USGS Columbia Environmental Research Center
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MINUTES

Attendees:

| | | | |
|------------------|------------------------------------|------------------|-------------------------------|
| Sarah Fast | DNR, Water Protection Program | Mona Menezes | City of Columbia |
| Darlene Schaben | DNR, Water Protection Program | Trish Rielly | DNR, Water Protection Program |
| Priscilla Stotts | DNR, Water Protection Program | Georganne Bowman | DNR, Water Protection Program |
| Anne Peery | DNR, Water Protection Program | Cecilia Campbell | DNR, Water Protection Program |
| Gust Annis | UMC MoRAP | Cindy DiStefano | MO Dept. of Conservation |
| Walter Roachell | EPA Region 7 | Jaci Ferguson | EPA Region 7 |
| Paul Andre | MO Dept. of Agriculture | Robert Brundage | Newman Comley & Ruth |
| Bob Broz | UMC Water Quality Extension | Chris Barnett | UMC CARES |
| Jeff Leonard | MO Agri-Business Association | Bill Kurtz | UMC Water Quality Extension |
| Greg Anderson | DNR, Water Protection Program | Michael Hardy | UMC CARES |
| John Johnson | DNR, Water Protection Program | Dorris Bender | City of Independence WPC |
| Colleen Meredith | DNR, Soil & Water Conservation Pgm | Buffy Santel | Metropolitan Sewer District |
| Randy Lyman | City of Springfield Public Works | Wayne Maresch | DNR, Env Services Program |
| Bob Ball | USDA NRCS | Steve Mahfood | The Nature Conservancy |
| Randy Sarver | DNR Env. Services Program | | |

Introductions were made.

The Missouri TMDL Process, Anne Peery, DNR, Water Protection Program

PowerPoint Presentation (John Hoke was unable to attend due to required attendance at another meeting.)

Anne has worked in the Water Protection Program (WPP) with TMDLs (total maximum daily loads) for seven years. Anne said John Hoke is now the TMDL Unit Chief; he has also been with the WPP for seven years. She explained that the Water Quality Monitoring and Assessment Section recently reorganized leaving two vacant positions. Those positions will assist with water quality standards and TMDLs. Anne gave an overview of TMDLs. She said that in a nutshell, a TMDL is the maximum amount of a pollutant (the "load") that a water body can assimilate and still meet water quality standards. TMDLs deal with the entire watershed. All water bodies in the state not meeting water quality standards are placed on the 303(d) list of impaired waters. A TMDL is then calculated. EPA requires states to do a new 303(d) list every two years. The 2004/2006 list is currently at EPA awaiting approval. If approval is received by the end of the year, the result would be some delistings of water bodies that could count toward the Consent Decree. (EPA was sued regarding TMDLs. The lawsuit was settled by a Consent Decree between the American Canoe Association and Sierra Club vs. EPA.) A Memorandum of Understanding between EPA and Missouri set a schedule to develop TMDLs for the impaired water bodies. This year, eleven TMDLs are to be completed. EPA assisted with writing TMDLs last year to help attain the scheduled numbers. The schedule is currently on track. The more difficult and time-consuming TMDLs are now in the process. Anne said they often have to write a TMDL where there is no water quality standard. There are three parts to water quality standards: define water quality goals for all waters in the state; assign uses; and set criteria necessary to protect public health (antidegradation). Anne talked about the beneficial and designated uses and the Use Attainability

Analysis (UAA). For each of the different uses there is specific criteria that applies. More stringent criteria are used for drinking water than would be used for cattle. There are two types of criteria: numeric and narrative. Discharging additional pollutants to Waters of the State is prohibited unless specific conditions are demonstrated. Of the 3 tiers regarding antidegradation, Anne said they are mostly concerned with Tier 2, which says 'water quality is better than water quality standards and degradation is allowed when justified.' Missouri is in the process of forming an antidegradation policy, which will soon become a law. There are several implementation strategies to bring a water body back to water quality standards. Monitoring is conducted later to determine if a difference has been made.

To develop a TMDL, you must first determine if there is enough available data or gather more data, if needed. You must identify possible sources then use the data to model the stream. You then calculate how much pollutant the water body can handle without being impaired. That load is then divided among the sources. A TMDL is often written as the load equals the wasteload allocation, the load allocation, and a margin of safety. An implementation plan can then be developed to fix the problem.

Anne's job is then to pull together the background information and modeling information, develop an implementation plan, and then place the TMDL document on public notice. She is also responsible for responding to comments received from the public notice and submitting the final document to EPA for approval. She helps communities to form watershed groups, which are necessary to implement the TMDL. TMDLs are for nonpoint source issues, which are not regulated. Some find it hard to realize there is a problem if it can't be seen. The watershed group needs to voluntarily come up with a plan and get funding to help fix their water body. Watershed groups can share current information. Local citizens know their community, know what the problems are, and can come up with solutions to put on the ground. The plan can be successful if there is local buy-in.

Anne is currently working with several groups to help them get started. Dan Downing, UMC Extension, is also helping to get groups organized. Organization is very important. Stream Teams are very helpful in getting their community to see the water quality problems. Clean water is consistently cited among the top elements for quality of life, making watershed groups important for a community. Anne is also working with the Big River watershed group. Their next meeting is August 30 in Park Hills. Watershed groups can contact the department to get a copy of the video entitled "Keeping Our Waters Clean." Information sheets on all Missouri 303(d) listed waters and watershed maps for all counties are available on the Web.

The department Web address for TMDL information is www.dnr.mo.gov/env/wpp/tmdl/index.html; TMDL Information on EPA's Web site is www.epa.gov/owow/tmdl/ or www.epa.gov/region07.

Bob mentioned that it is sometimes a long process to get watershed groups to work together.

Anne said the Consent Decree ends December 31, 2009. By that date, 174 water bodies from the 1998 303(d) list should have a TMDL written.

UMC Rapid Watershed Assessment Project, Chris Barnett and William Kurtz, UMC PowerPoint Presentation (Handouts)

Bob Ball began by saying the mission of NRCS is helping people help the land. Their vision is productive lands, healthy environment. To achieve the mission and vision, they follow the *Productive Lands, Healthy Environment Strategic Plan, 2005-2010*. A strong emphasis is on using a watershed approach. In the 2006 update they mention the watershed approach and what was done. They developed interim guidance on the processes and procedures to conduct Rapid Watershed Assessments (RWA) and awarded \$3M of cooperative initiative funds to carry out RWA projects. The handout gives an overview of the process. This was first initiated in the western states.

The other handout explained the development and use of RWA and what they do not do. It includes projects to be completed. NRCS has plans to complete five internal projects for 2007. Four external assessments will be done by UMC for 2007. NRCS has also committed to do five multi-state projects in 2008, which involves Iowa, Kansas, and Missouri. Five projects are currently in the process and scheduled to be completed in mid-January. Bob said NRCS could present next year to the WQCC what they have done on their 15 projects. Bob said these are the higher priority HUCs. Better opportunity is given for multi-state watersheds.

Chris said that UMC has taken a slightly different approach than NRCS. (Chris gave partial credit for the presentation to Bob Broz and Michael Hardy.) The overall idea is to look at the current conditions of conservation efforts within the watersheds. Also, there should be local input and locally led identification of conservation priorities and concerns in their areas. It will provide an estimate of funding needs and potential sources of funding for dealing with conservation priorities identified.

The first part of the assessment is to come up with a base profile of what is going on in the watershed. Different datasets are reviewed to come up with a description of the hydrologic unit. The second part is to collect additional input on what is going on. UMC picked four watersheds – Lower Gasconade, Lower Osage, Sac and South Grand. Within the first three months they developed a report on each watershed. Chris routed around reports on each watershed. They then collect local information, which will be combined for a later report. The RWA profile is compiled from readily available data, which provides general description, physical description, resource concerns, census and social data, and resource conservation status.

Bill Kurtz collected information at the local watershed level. He has had two meetings with landowners in each watershed and has plans for another meeting. The meetings were facilitated. The third meeting is being planned for December to report the findings to the groups. Bill talked about the meeting held in Clinton. They solicited information for cropping practices, pasture practices, grazing practices, conservation practices, and natural resource issues. He talked about the information received from each practice. All watersheds expressed concern over urban sprawl and trespass. They will work with NRCS to prepare an assessment matrix. A final report for each watershed will then be prepared.

Bill or Chris can be contacted for any questions.

In answer to a question about how this will affect current watershed groups, Bob said the groups will know about this because they will be involved through the approach of local meetings. NRCS is building theirs internally then taking the finished product to the field offices. The finished product, UMC's and NRCS', will be used as a basis to develop the watershed management plan. Local leadership will be encouraged. When final products are completed, they will be available on the web.

Gust, MoRAP, mentioned that the human threat index project that they are currently working on may pair up with the RWA. This project is funded by DNR through EPA. The project is done at the reach scale, looking at CAFOs, various point source discharges, mines, land cover, etc. There will be 40+ things that they will have quantified. A percentage or density of the upstream drainage area will be tied to every stream segment in the 1:100,000 network. An index will be developed and will talk about the level of human threat in that watershed. Gust thought this project would be completed in approximately one year or soon after. Bill thought their project should be completed in March 2008.

Show-Me Yards: Green Lawns/Blue Waters – Having Both the Smart Way, Mona Menezes, City of Columbia

PowerPoint Presentation; Handouts: brochures

Mona said the Columbia Show-Me Yards idea came from attending a field day at Watershed Committee of the Ozarks (WCO). WCO received a 319 Nonpoint Source Minigrant for their project. Mona included the concept when writing the Hinkson Creek Restoration grant. The City of Columbia's Chief Engineer liked the idea and wrote it into the city's stormwater plan. WCO had said that involving numerous partners is the key to their success. Mona said it was important to pull together a community committee before anything gets decided. The committee needed to be in on the ground level. Springfield's focus was on lawn care professionals. Columbia decided to focus on homeowners. Workshops were held over a period of three nights. Mona said that Springfield has a series of video that would be really good to see. The Hinkson project has six "yard of merit" signs, which are rotated throughout Columbia every two weeks. Feel free to stop and ask questions if you see a yard with this sign. They had 25 people registered for their first workshop in 2005; 125 for the Feb. 2007 workshop; and 70 people signed up to attend the workshop in August 2007. She went over the agenda and talked about some of the information given at the workshops.

Lawn owners use more chemicals than farmers use on their crops. Mona said that measuring pesticide presence is about the same in urban areas as agricultural areas. Presence was found in about 90% of the streams tested. That didn't exceed the benchmark for human health but was an exceedance for aquatic life. Bug presence or absence is an indicator of water quality. She said nutrient in the streams have increased since some of the wetlands have disappeared. The choices made by homeowners are starting to cause fish and aquatic stress. The hope is that by attending the educational workshops homeowners can then make informed choices. Mona talked about some of the purposes of the Show-Me Yards and Neighborhoods project. It helps with education about water quality and storm water runoff. It promotes responsible yard care with healthy yards; it doesn't have to be a perfect yard. It focuses on improving soils so fewer chemicals are needed. It's not an organic program but they have an organic specialist who talks about a wide range of things so homeowners can make choices.

She said there are three easy things homeowner can do – 1) Consider having a healthy lawn instead of a perfect lawn; 2) leave your lawn clippings as they contribute back nitrogen and potassium into the soil; and 3) consider mowing at 3-4 inches which may result in fewer weeds.

DNR provided 319 funding for a sign at the Show Me Yards Demonstration area at Rock Bridge State Park as part of the Bonne Femme project. Funding was also provided for the watershed friendly lawn project at Rock Bridge State Park six years ago. John Johnson was the project manager and said the lawn still looks great. Others who have been using the Show-Me Yards principles include the White House and MU's golf course; Shelter Gardens has gone totally organic. Also, Disney has reduced their pesticide use.

MU Extension would like to see this idea and the workshop provided statewide but there are still program and funding questions that need answers.

Other

Sarah said the next meeting is September 18 in Jefferson City with a focus on monitoring. The October meeting will focus on urban best management practices with the November meeting focusing on agricultural best management practices. Sarah also said that the Nonpoint Source Management Plan Advisory Group meetings will start up again soon.

Agency Activities

Jaci Ferguson, EPA, announced that the Marais des Cygnes watershed proposal was awarded a Targeted Watershed Grant. \$16 million was available. This was a shared watershed project between Missouri and Kansas.

Chris Barnett offered to do a presentation on the 319 project that CARES is working on.

Wayne Maresch announced a new project that just started with Stream Team, called Cooperative Stream Investigations (CSI). The first report should be available on the Web in a few weeks.

Greg Anderson mentioned the 2006 319 subgrant awards are in the process of being negotiated. The 2007 319 grant should soon be sent to EPA for approval. The 604(b) grant is currently in the process. The 2007 319 Request for Proposals is still open to receive applications until October 1.

Paul Andre mentioned a change of leadership in the Dept. of Agriculture. He said that not only do they have a new director but Jim Lee retired as Division Director of Plant Industries and Judy Grundler has been named as Jim's replacement.

Anne Peery talked about the Big River TMDL. It was on public notice December 2006 – January 2007 and received several comments. As a result, several changes were made to the TMDL and will again be placed on public notice soon.

Priscilla Stotts said that World Water Monitoring Day has been changed from October 18 to September 18. She requested that all Missourians should get out and monitor! Last year Kansas ranked 16th in the world for turning in the most data; Missouri ranked lower. Kits are provided online and you don't have to be a stream team member to monitor and send in data.

Meetings & Conferences

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| August | 30 | Goodwater Creek field day |
| Sept. | 11 | Bradford Farms research update field day |
| | 21 | Mark Twain Lake is having an Environmental Education Day |
| | 27 | SWCS Fall Forum in Macon |
| Oct. | 17-19 | Southeast Water Quality Conference, Fayetteville |