



**Missouri
Department of
Natural Resources**

WATER QUALITY COORDINATING COMMITTEE

Lewis & Clark State Office Building
LaCharrette Conference Room
1101 Riverside Drive
Jefferson City, Missouri

March 20, 2012

10:00 a.m.

MEETING AGENDA

A Nine Element Watershed Plan in the Lower Meramec Basin: Planning Challenges in Urban Areas - David Wilson, East-West Gateway Council of Governments

Nine Critical Elements to Watershed Planning: an Overview from EPA Region 7, Steve Schaff, EPA Region 7

Other

Agency Activities

Meetings & Conferences

MISSOURI WATER QUALITY COORDINATING COMMITTEE

Lewis & Clark State Office Building
LaCharrette Conference Room
1101 Riverside Drive
Jefferson City, Missouri

March 20, 2012

MINUTES

Attendees:

Trish Rielly	DNR, Water Protection Program	Tyler Bax	MDC-Streams Unit
Steve Schaff	EPA Region 7	Lynn Milberg	DNR, Env Services Pgm
Jane Davis	DNR, Water Protection Program	Bob Campbell	Stantec Consulting Services
Melissa Bushdiecker	MO Dept. of Agriculture	Charlie DuCharme	DNR, Water Resources Center
Dan Downing	UMC Water Quality Extension	Bob Welsch	Stantec Consulting Services
Terri Brink	EPA Region 7	Soojung Lim	DNR, Water Protection Program
Bob Broz	UMC Water Quality Extension	Julie Westhoff	Kennedy/Jenks Consultants
Kevin Perry	REGFORM	Valerie Hentges	DNR, Water Protection Program
Susan Higgins	DNR, Water Protection Program	John Johnson	DNR, Water Protection Program
Anna Nowack	DNR, Water Protection Program	Bill Allen	MSD
Robert Voss	DNR, Water Protection Program	Michael Bollinger	Ameren
Chris Riggert	MDC – Stream Unit	Steve Nagle	East-West Gateway
Carol K. Garey	DNR, Water Protection Program	Dave Wilson	East-West Gateway
Darlene Schaben	DNR, Water Protection Program	Greg Anderson	DNR, Water Protection Program

Introductions were made.

A Nine Element Watershed Plan in the Lower Meramec Basin: Planning Challenges in Urban Areas -

David Wilson, East-West Gateway Council of Governments (EWG)

PowerPoint Presentation; Handout: “Homeowner’s guide to septic system maintenance” brochure

David showed a map of the Lower Meramec River Watershed, which is the focus of their plan. It covers portions of St. Louis County, Jefferson, Franklin, and into Crawford counties. The Lower Meramec River starts at Meramec State Park and runs to the mouth.

They started with using the six basic steps for watershed planning from the EPA manual: build partnerships, characterize the watershed to identify problems, set goals and identify solutions, design an implementation program, implement the watershed plan, and measure progress and make adjustments. Some were a challenge to put into place. Through another grant, a Water Resource Council was started, which was a big step in helping to build partnerships. The key partners were Dept. of Natural Resources, Dept. of Conservation, Metropolitan St. Louis Sewer District, Open Space Council, and Missouri American Water. The Meramec River covers the entire basin of 14 counties in eastern Missouri, nearly 4,000 sq. miles. It is nationally recognized for its biodiversity. The Lower Meramec is approx. 550 sq. miles and is a drinking water source to over 200,000 people.

Rather than focus on one watershed for the study, they decided to focus on four watersheds. The area stretches from Grand Glaize Creek in St. Louis County and Williams Creek that comes in from Jefferson to St. Louis

County; Hamilton Creek, which includes Kiefer Creek and Castlewood State Park area; Fox Creek and LaBarque Creek makes up one watershed; and Brush Creek. These watersheds all have several different issues, but some in common. The area includes several acres of public land. The watersheds include nineteen cities with a population of over 31,000.

David mentioned the group did several mappings, some of which included the Conservation Opportunity Areas, the Meramec geology, runoff potential, and land cover. EWG has been working with Missouri Resources Assessment Partnership (MoRAP) of the University of Missouri-Columbia to map the eight-county region for land cover. EWG is holding a program on April 5-6, 2012, in St. Louis as part of the Earth Day Symposium, to discuss how planners can use this data to assist local governments in county planning.

In developing the WMP, they established their water quality goals as biologic health of the stream and reduction of pollutant load in a polluted stream. They looked at the Department of Natural Resources' listing of the streams that are at risk; these are Grand Glaize, Fishpot, and Kiefer creeks. Using a simple model they identified potential methods that would reduce pollutant load in these streams. As Management Measures, they used previous studies done by other groups. The group found that financial assistance was limited which made long range planning difficult. Most important is getting to the stage where behavior change begins to happen. The target projects were set up on a short-term (5 years), medium-term (10 years), and long-term (20 years) implementation schedule in what they thought could be reasonably addressed. Since funds are limited it really comes to determining what is achievable, affordable, and opportunity-based. To build local government capacity, they felt it important to target public lands. For demonstration and education, they identified places for people, and encouraged local governments, to think about what they could do to implement best management practices for stormwater. While in the demonstration and public education phase, and in order to reach the maximum number of people, to get the most impact on one stream you would concentrate efforts in one small area. But, EWG felt it more important to reach more people and spread the project out across the four watersheds so all 20 of the local governments would have a project in their community. Watershed Management Plans on the three degraded streams--Kiefer, Grand Glaize, and Fishpot creeks--are on a high priority implementation schedule.

David thought that there has not been enough attention paid to the importance of measuring and evaluating behavior change on a local practice. Elected officials and staff need to be aware and practice the strategies that need to be implemented. The public can get involved with the stream teams and neighborhood associations to assist with monitoring the streams. Public participation is important for the planning framework phase. They will then know what's in the plan and see how they can help with implementation. EWG developed educational brochures on homeowner septic system, a summary of the overall initiative on the Meramec watershed, and one on best management practices for stormwater. They are trying to use a variety of approaches to get the word out since not everyone will read the plan.

In their focus on recommending projects in publicly owned land they talked with Division of State Parks (DSP), St. Louis County parks, municipal officials, MDC, and in all cases they asked where there would be opportunities for rain gardens, pervious pavement or other green infrastructure that can help manage stormwater. DSP and St. Louis county parks responded with a long list of projects that could be done. Municipal officials and MDC are still working on a response.

Dan Downing commented that the EWG seems to be the most effective at getting the pieces pulled together and all the partners and players together. David said that through the Water Resources Council they can keep educating local government officials and get the right people to the meetings. They have a commitment to "being involved."

In response to a question, he felt the biggest challenge in this process was the modeling. But models are only good up to a point. Every watershed has its own challenges. Predictions won't help what is needed right now, which includes behavior change, change of local ordinances, and land use issues. People need to know right from wrong.

The final plan along with the appendix can be found on the web at the following location:

<http://www.kswraps.org/kdhe-approved-nine-element-watershed-plans>

Nine Critical Elements to Watershed Planning: an Overview from EPA Region 7, Steve Schaff, EPA Region 7
PowerPoint Presentation

Steve is tasked as the Regional Nonpoint Source Coordinator for Kansas. By the end of the year Kansas will have developed a nine-element watershed plan for each of their 38 watersheds. This has involved a huge amount of technical assistance and funding for state and university staff. Kansas was one of two states where there were no comments on the watershed plans in order to make them better.

In 1987, Section 319 of the Clean Water Act was amended, then again, in 1997 with the Watershed Approach. There are two key steps to a watershed approach: develop a watershed management plan and implement the plan. Getting stakeholder and leadership buy-in is in step one. Steve has found that it's proven to be very critical in Kansas to get multi-agency oversight and buy-in to run the program effectively. For example, Kansas Forest Service has always given state forest service a portion of their funds to run the state program. They have moved to a different program where they compete for funding. This was an opportunity to leverage funds. Universities (a stakeholder) may have data collected and housed somewhere already. Most stakeholders are not only landowners but hold a local government position. The Technical Advisory Team consists of staff from different agencies.

Steve talked about available sources to obtain information from different agencies. Most cases where projects struggle is if the total maximum daily load (TMDL) document does not lay out the problems or the load reductions. This information is important to integrate the 319 program and TMDL program. It seems to make the planning process much easier and valuable information about the watershed is already available and on the web. Steve mentioned that Kansas has been able to develop watershed plans that are reader-friendly and easy to read. These can be found on the web. He said 319 funds will be used more on healthy waters. Not all impaired water bodies need to be addressed in a watershed. Stakeholders would decide on the priority areas to target. The watershed plan would then be amended to address the next impairment. The goal is to remove water bodies from the impaired waters list. In Kansas, the Kansas State University has been valuable with technical assistance. A Technical Advisory Team can lay out who can better assist groups for each BMP. They can also help with providing estimated costs. Measurable Milestones should also be included in the plan to show that a milestone is met and to measure water quality progress. Social indicators should also be included to show any behavior improvements. The plan should be reviewed every five years. It's good to have a checklist to review and questions to ask to see if the plan is progressing as planned.

Steve talked about an example of an urban watershed plan from Michigan. These plans may contain a watershed map, data collection/assessment (criteria and scoring methodology for assessing streambank erosion), use of models, urban land use data, land use mapping, summary of cover types within the stream corridor, BMPs to use, BMP targeting, alternatives analysis, monitoring plan and costs, potential funding sources (grants or loans), and proposed implementation schedule and costs.

http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3714_31581-127716--,00.html



**Missouri
Department of
Natural Resources**

If you have any questions for Steve, he can be contacted at (913) 551-7447 or Schaff.steve@epa.gov.

Agency Activities

Jane Davis mentioned the St. Louis Earth Day Symposium will be held the end of April. David Wilson is the contact. A free 319 Streambank Stabilization Workshop and Training will be held April 10-12, Belews Creek in Jefferson County, Hillsboro. Contact Jane at (573) 526-1386 for more information.

Meeting adjourned.