Minutes of the Bonne Femme Watershed Project Technical Advisory Team Meeting

May 6, 2016

In attendance: Lynne Hooper, Nicki Fuemmeler, Ann Koenig, Amy Meier, Cathy Richter, Tom Wellman, Bob Lerch, John Rustige, Ryan Lueckenhoff, Mike Parks, Bill Florea, Dave O'Brien, Roxie Campbell

Lynne Hooper announced that the primary focus of this meeting would be to set priorities for the implementation phase of the Bonne Femme Watershed Project. This process would begin by exploring a series of questions that were originally part of a survey posed by Mid-America Regional Council in a watershed project in western Missouri. The survey questions should tell us whether the different professional perspectives represented on the Technical Advisory Team merge on issues relevant to the Greater Bonne Femme Watershed.

Dave O'Brien questioned whether the questions in the survey would be valid for the intended use of the answers and what population does the survey represent. Lynne explained that the answers would be useful for her in managing the Bonne Femme Watershed Project and that the population sampled is agency folks (the Technical Advisory Team) who work in the watershed. Dave also noted that a survey of people living the watershed would be very revealing. Key questions would include what is the extent of citizen knowledge about the watershed, where citizens obtain this knowledge and what are citizen incentives or disincentives to assist with improving water quality in the watershed.

There was a brief discussion about the availability of sewer services in the watershed. The city and county recently connected sewer service in some areas and some homeowners voluntarily upgraded their residential systems.

The survey questions and responses from the team are on the pages that follow.

Question 1. From your professional perspective, how do you view the waterways in the Greater Bonne Femme Watershed?

ecosystem services transport / hydrology unique geology / karst educational value / partnerships / opportunity for public outreach recreation / aesthetics state / county resource water quality / uses (this was originally **Question 2**. What is the water quality in the Greater Bonne Femme Watershed?) wildlife bugs = good*E.* coli = baddegraded (nutrients too) - not too polluted better than Hinkson Creek although some urban land use Missouri state resource waters in watershed land use inputs / runoff spatial / temporal considerations dumping economic value - direct and indirect management: stormwater, etc. increasing development pressure diverse land use knowledge base of citizens

Question 3. To what extent do the following problems exist (streambank erosion, bacteria pollution, etc.)?

Negative	Positive
decreased riparian corridor / canopy cover	water clarity
erosion	
bacteria / nutrients	
decreased habitat / increased human-wildlife conflict / lack of corridors	
development pressure / roads	

Question 4. What water quality problems should an implementation plan in the Greater Bonne Femme Watershed address?

BMPs for new development / retrofits or subsidies for existing development education / influence human behavior (low-impact development as example) / listen to landowners (we're all on the same side) at local venues communication / caring / acknowledgement of water quality problems / find the common ground / emotional connection to resource technology (example of mobile electric fences) non-traditional incentives? (example of increased value of land for heirs if not adjacent to polluted site) regulation – democratic process (some type of prioritization of development, i.e. favor agricultural uses over impervious surface area?) trees are the answer (work on expanding requirements of tree ordinance for the county?) voluntary commitments (example of cost-share BMPs) environmental justice economics (direct and indirect) adaptability representation of stakeholders

Question 5. What outcomes are most critical (ranking several outcomes)? (note: the outcomes were not ranked at this meeting)

complete understanding of system water quality standards met / non-toxic streamwater full ecosystem function and integrity mitigate effects of land use alteration including legacy effects engaged community / citizen opportunities to contribute to outcomes

Question 6. What news headline would you most want to see for the waterways in the Greater Bonne Femme Watershed in the year 2036?

kids play in the creek safely record Topeka shiner catch in Three Creeks Conservation Area celebrating a decade of meeting water quality standards pink planarian adopted as mascot of Rock Bridge High School Bonne Femme Watershed sets example for environmentally friendly growth

Question 7. Are these the questions we should be asking? If not, please suggest a few relevant questions.

What regulatory changes would help? (short-term v. long-term) (the county tree ordinance was one example) How can we ensure institutional continuity and cooperation between government entities? How can we integrate lessons learned from other watersheds? need to keep website fresh – add publications and data Ryan Lueckenhoff mentioned that in the Columbia area, there seems to be a movement among landowners to make improvements to their property without the use of chemicals.

Ann Koenig mentioned that she wanted to learn more about the County tree ordinance(s). Bill Florea said that would be a good issue to explore.

Roxie Campbell mentioned that we need more city / county cooperation with respect to land development in the Greater Bonne Femme Watershed. Team members noted that development drives many of the perceived water quality issues in the watershed.

Ann mentioned that a slightly different perspective on the role of the Technical Advisory Team would be to look at what expertise each of us has to bring to the table that might address a part of the water quality issues in the Greater Bonne Femme Watershed. Tom Wellman added that we also might want to look at what "fixes" work on the greatest number of problems – where can we get the "biggest bang for the buck." Bob Lerch added that we want to do what we can with willing landowners – find the fertile ground where we can do some good in the watershed. It can be difficult to get farmers to change the way they are doing things – they have a lot more at stake than we might realize as non-farmers. Ryan said that if we can find the one landowner that everyone respects and convince that person to change their land management (and is willing to talk about those changes) others are likely to follow. Ryan also mentioned that Missouri Department of Conservation has an agricultural liaison that could help us to communicate with a meeting of agricultural landowners.

Roxie mentioned that the democratic process might be one way to ensure compliance with best management practices designed to improve water quality. Government would then enforce the laws when citizens did not comply. Cathy Richter mentioned that when the best management practices cost money mechanisms would need to be in place to ensure that all landowners can still make money from the use of their land. Bob reinforced the idea of equity concerns in watershed management.

Ryan briefly described cost-share funding that is available to landowners. He believes at this point (he has only been in Boone County for a couple of months) that the limiting factor on getting cost-share funds distributed to landowners is that they are not calling in to take advantage of funding.

Dave started a discussion about how the City of Ashland needs to increase its tax base in order to continue to fund public programs for schools and other infrastructure. The residential population in Ashland has been increasing and the city will look to commercial development to increase the tax base. Team members discussed a couple of upcoming developments in the Ashland area (which will in turn require additional infrastructure, particularly sewer expansion).

Bob will make his papers on water quality in the watershed available to Technical Advisory Team members. Lynne indicated that she would make the papers available on the cavewatershed.org website. Lynne also mentioned that she now has the ability to update the pictures that appear on the website. Roxie will supply an article about the 2009 die-off of invertebrates in Devil's Icebox Cave. Bob will also supply a link to data he collected in the watershed. Bob has agreed to have his staff resume the water quality monitoring efforts in the watershed. His group can be ready to go as soon as arrangements are in place to analyze water samples for *E. coli*. Lynne passed around a map showing the location of the 10 water quality monitoring sites that were previously established in the watershed. Lynne hopes that the City of Columbia / Boone County Health Department will be able to assist with bacterial analyses.

The next meeting is scheduled for June 17th. Lynne mentioned that the Watershed Festival is planned for July 16th at Rock Bridge Memorial State Park. Roxie gave a few details about events at the Watershed Festival. Lynne also mentioned that the stage monitoring equipment has arrived and she hopes to install the equipment soon. A plan is in place to develop stage-discharge curves in the watershed. Lynne also plans to set up automated water samplers with the gauging equipment and she will send stormwater samples to a local lab for analysis for constituents such as nutrients and metals.

Dave asked what the time frame is for implementation of the watershed plan. Lynne indicated that there is not a mandatory time limit. She wants to be able to demonstrate to the Missouri Department of Natural Resources (MDNR) and the Environmental Protection Agency that we are being proactive in handling water quality problems in the watershed. This is particularly important once MDNR issues a Total Maximum Daily Load (TMDL) document for bacterial contamination of streams in the watershed. John Rustige added that there is not currently a time frame for when MDNR will issue the TMDL document.

Bob suggested that we might want to establish a timeline for reaching certain goals as a team.

Lynne mentioned that in order to get presentations to the Columbia Public Schools we must tie our presentations in to the existing school curricula.

Roxie asked if the team would like to pair up with Friends of Rock Bridge for a fall cleanup event. This is a great idea and we will pursue that collaboration.

Cathy reminded the team that the county is offering an interpretive hike along the Spring Brook Trail in Rock Bridge Memorial State Park this evening.

Lynne mentioned the new Boone County, Missouri Stormwater Facebook page and asked if team members could distribute cards about the watershed project.

Team members agreed to adjourn the meeting.