

Minutes of the Bonne Femme Watershed Project, Technical Advisory Team Meeting,  
October 6, 2017

Team members in attendance: Nicki Fuemmeler, Tom Wellman, Lynne Hooper, Amy Meier, Bill Florea, Mike Powell, Roxie Campbell, Jason Thomas, Theresa Thomas

The meeting opened with activity updates from team members. Mike Powell advised that Greenbelt is still working on a conservation easement on the land swap for property adjoining Three Creeks Conservation Area. This project is on the Missouri Conservation Commission agenda for approval in December. A timber stand improvement project is also ongoing at Greenbelt's Big Sky Nature Preserve.

Tom Wellman advised that the legal action regarding sediment and erosion control at Phillips Lake is drawing to a close. It is unclear yet whether there will be a restoration project or just a fine. The project that was being discussed by the responsible party has already been completed by the City Parks and Recreation Department.

Jason Thomas said that the runway construction at the airport is being wrapped up and that the major parts of the project should be done by November 4<sup>th</sup>.

Roxie talked about the Devil's Icebox Cave Tours that have been happening recently. One involved pink planarian research and only 3 planarians were counted. Years ago, researchers would count around 24 planarians on the fall count. The spring count for 2017 was 0. Gray bats in the cave are still doing well. The Park's 50<sup>th</sup> Anniversary celebration will be happening on November 4<sup>th</sup>. There will be music, free food, and interpretive stations on history and natural resources. Invasive plant control and burns are still happening.

Lynne was up next to talk about science. There is a draft contract for the microbial source tracking project. There were many delays including evacuation of vendor personnel for a hurricane. Lynne expects that there will be at least one sampling event before the end of the year. Once the contract is signed and a purchase order created, provided that these things are done by the end of the year, the funds will be locked in and sampling can occur in 2018 if necessary.

Water samples were collected from 7 sites in the Devil's Icebox Cave on September 30<sup>th</sup>. The samples did not vary enough to suggest a possible surface source for the *E. coli* in the Devil's Icebox Spring Branch. Moving forward, a park staff member will likely be the one collecting the water samples as Lynne does not plan to make any additional trips into the cave. The regular quarterly monitoring in the watershed by Bob Lerch's staff just started up this week. Lynne is going along for the sampling in Rock Bridge Memorial State Park to comply with the terms of the state parks permit to be discussed later. The sample from Turkey Creek was chocolate brown, renewing concern that sediment has become a problem in this stream. Jason Thomas advised that the Department of Natural Resources came out to the airport to investigate a complaint on another local stream and found that the sediment basins on the airport property are working properly and collecting sediment from the construction there. Lynne, Nicki, Tom and Jason will explore possible sources of sediment in Turkey Creek later today. There was a question as to

whether the sediment could be coming from the Potterfield development near the airport. Lynne does not believe that this is the source of the sediment because runoff from that property should be draining in the opposite direction, toward Bass Creek. A brief discussion of possible sources of sediment followed.

Two events are coming up in October at Rock Bridge Memorial State Park for education and outreach. The fall monitoring blitz will be happening on October 14<sup>th</sup>. Amy sent out a paper Streamgram advertising the blitz and is plugging the event on Facebook. Some emails have gone out to the School of Natural Resource and Friends of Rock Bridge sent an email to their membership. The event was also mentioned in the Channels newsletter article about the Bonne Femme Watershed effort. Site leaders are in place for all six monitoring sites in and around the park. Master Naturalists will be present for monitoring at their site on Gans Creek. The Rock Bridge Renew cleanup is scheduled for October 28<sup>th</sup>. Lunch will be provided after both events.

The strategic plan subcommittee has not held another meeting, but everyone has read the new 9-element plan requirements. Trish Rielly from the Department of Natural Resources has been in contact with Lynne to talk about the new requirements. The U.S. Environmental Protection Agency must approve any 9-element plan for a watershed and the new requirements are much more involved than they were previously. The analysis required is very similar to what EPA would need to do to develop a Total Maximum Daily Load (TMDL) document. Pollutant loading calculation, requisite amount of load reduction to achieve water quality goals, and best placement of best management practices on the landscape to achieve load reduction are all required. A brief discussion of the methods used to calculate bacteria loading followed. It may be necessary to hire a consultant to do this work. Bill, Nicki and Lynne will need to meet with Trish Rielly to get more detail on how to make the calculations before any additional decisions are made. Very few 9-element plans have been developed in Missouri under the new criteria. The Department of Natural Resources is not announcing a request for proposals for Chapter 319 grants currently because so few entities are eligible – a 9-element plan is a requisite for Chapter 319 eligibility. Dan Downing from the University of Missouri Extension Office will also be giving workshops on watershed planning in the future.

Nicki and Lynne met with Robert Voss and John Hoke at the Department of Natural Resources on September 20<sup>th</sup>. The purpose of the meeting was to see if there was a way to put off the issuance of TMDLs for the 5 bacteria-impaired streams in the Greater Bonne Femme Watershed. Since the watershed project has been revived there has been a lot of work on collecting current scientific data in these streams. The outcome of the meeting was good. The Department is willing to work with the County and partners provided that certain requirements are met. A 9-element plan must be developed. The County must file comments on the City's Integrated Management Plan and indicate partnership and collaboration in the Greater Bonne Femme Watershed. Kori Thompson with the City is checking to see if the County can get a final version of the plan before it goes to City Council – the County would write a letter commenting on the City's plan that would be filed with the Department of Natural Resources. In January, after the Clean Water Commission approves the 2018 303(d) list, the Department will publish a TMDL priority list. The County will need to file comments on the priority list, asking that the TMDL priority for the streams in the watershed remain low and explaining the work that is being done on the watershed project. If the County does these things, it is likely that the Department of

Natural Resources would allow 5-15 years for the water quality research and projects to be completed. This was very encouraging news.

After Nicki and Lynne met with MDNR staff, Lynne had a conversation with Roxie about the bacteria information that had been shared. After some discussions with state parks staff, it was determined that Lynne needed to have an annual research permit to collect water samples for the Bonne Femme Watershed Project. A research permit has been obtained and is in effect until the last of the year. A meeting will be scheduled with all interested parties to discuss *E. coli* levels in park streams. Missouri Stream Team activities do not need a permit. Tom mentioned that the City of Columbia requires research permits for activities in the City parks. A brief discussion of the implications of the *E. coli* levels followed.

Roxie reminded Lynne to talk about the heavy metals testing that had been done in streams in the watershed. As per the previous meeting minutes, stormwater samples were collected at 9 of Bob Lerch's 10 sampling sites on August 22<sup>nd</sup> after a 1.5" rain event. The results came back with aluminum levels that were high. Under current Missouri water quality standards, the acute standard for aluminum is 750 micrograms per liter, and all but two of the samples were at levels at least twice that much. Nicki and Lynne showed the results to the water protection folks at MDNR and they gave instruction on additional parameters to include in future testing. The County has just collected 5 baseflow samples that have been sent to the lab for analysis and comparison with the stormwater samples. Of interest are the baseflow numbers for Turkey, Bonne Femme and Bass Creeks as these had the highest stormwater levels of aluminum. There are a couple of theories currently about the sources of the aluminum. It is too early to speculate about sources until we have more information. A discussion of this information and general stream processes followed.

Lynne and Nicki met with Ethan Miller and Kevin Monckton at Boone County Soil and Water Conservation District a couple of weeks ago to talk about claims for cost-share best management practices (BMPs) and which BMPs are popular. The discussion ranged across a variety of topics and Ethan and Kevin suggested putting on a land management workshop in the watershed. Lynne handed out an outline of potential topics for the workshop. Ethan and Kevin will cover agricultural BMPs and erosion reduction. The best time for the workshop will be January or February. Theresa Thomas is going to be the facilitator for the event. The topics will likely be presented as 20 minute presentations for a total of a half-day workshop. Tom suggested that we add on-site wastewater treatment as a topic. The goal is to appeal to everyone living in the watershed. Lynne will speak on water quality. Theresa will talk about residential BMPs. Additional speakers will be solicited to cover the remaining topics. Either the Health Department or University Extension would be good choices to cover on-site wastewater and well water testing topics. Missouri Stream Teams could be involved in the water quality discussion. Roxie could talk about animals that live in the watershed and possibly invasive species control. Conservation easements may be another good topic for consideration. The venue will be in the watershed and the flyer will be mailed to all residents of the watershed. Bradford Research Farm has a nice facility that would be good for the event – divided rooms are available and the facility furnishes tables and chairs. It would be best to have the event on a Saturday so that attendance would not be limited. Materials could be made available on tables at the event. February 10<sup>th</sup> was selected as the date with February 24<sup>th</sup> as a backup date in case of bad weather or venue

availability. It would be great to have local landowners talked about successes on their property at the next workshop.

Lynne mentioned that the [cavewatershed.org](http://cavewatershed.org) website is being reworked by a County IT person.

The next meeting will be held on December 1<sup>st</sup>.

Roxie asked for an update on the McTurnin property. Bill said there still has not been a declaration of the developer's intention on sewage disposal. There will not be a public hearing on the application provided that the property remains within the County and the regulation requirements are met.