

Bonne Femme Watershed Project, Technical Advisory Team meeting, January 12, 2018

In attendance: Lynne Hooper, Bob Lerch, Tom Ratermann, Cathy Richter, Ryan Lueckenhoff, Ann Koenig, John George, Roxie Campbell, Mike Powell, Nicki Fuemmeler, Amy Meier

Lynne handed out the BFWP Technical Advisory Team t-shirts to those in attendance at the beginning of the meeting.

The meeting opened with activity updates from team members. Mike Powell advised that Greenbelt had been working on some habitat improvements at Big Sky Nature Preserve. The woodland was thinned a bit to restore a couple of habitat types.

Roxie Campbell was up next. Park staff and volunteers have been working on invasive species removal. She is also continuing to work with the Missouri Invasive Species Task Force (MoIP) – there will be a callery pear event on April 13th at 2:00 p.m. Bradford pear trees (popular ornamental tree) are supposed to be sterile but they have found a way to reproduce → callery pear. Roxie mentioned that the fire station on Route K is having a line of sight problem due to callery pear growth on an adjacent lot.

John George opened with a comment that the Missouri Department of Conservation is working to revise its land acquisition strategies. They are wanting to give more weight to the 10 most urbanized counties in Missouri, which would include Boone County. Previously land acquisition in Boone County would not rate very well on MDC's priority list because of the high cost of land per acre. MDC wants to be relevant in locations near the greatest populations. John is hopeful that over the next 5 years there may be a significant increase in land owned in Boone County.

Ann Koenig is working on a state-wide conference on forestry that will be held in Columbia, March 13-15. The Missouri Community Forestry Council is involved in this conference. The keynote speaker is a former medical doctor who will talk about how being out in the natural environment has a positive impact on human health. Other topics will include how the emerald ash borer is being handled in different parts of the state. Ann will send out information on the conference to team members.

Ryan Lueckenhoff has been working with landowners on cost-share programs, although there has not been much activity in the Greater Bonne Femme Watershed in the past year or so. There will be a Youth Pollinator Day on February 24th at A.L. Gustin Golf Course. A landowner burn workshop will be held on March 7th in the evening. There is also a pond workshop that will be held on March 8th. MDC will also be hosting a training for local fire department staff that issue burn permits to landowners – the date has yet to be determined.

Tom Ratermann gave the next update – he talked about the Clear Creek Estates development on property located directly across from Rock Bridge Memorial State Park. A developer has purchased the western half of the property, and is proposing a 45-lot subdivision on approximately 150 acres. Boone County Regional Sewer District is working with the City of Columbia to provide sewer services to the subdivision. The preliminary plat has been approved

with contingencies by the Boone County Planning and Zoning Commission. One of the conditions is working out the sewer services. The property is in Boone County with a minimum lot size of 2.5 acres. Two relatively large tracts of forested land will be left as common ground. Roxie expressed concern about how the property will be developed. She is hopeful that the developer will leave many of the trees that are on the property. Stormwater controls have not yet been presented for review so it is unknown whether detention basins will be built in the common areas. Nicki Fuemmeler mentioned that the developer will have to preserve trees on the property, and may use some of the trees in the common areas for that purpose. The developer will also have to do some type of water quality treatment, but again this has not been presented for review. Under Boone County regulations, the developer will not have to put in curb and gutter streets. The complicating factor for this development is what kind of conditions the City of Columbia will require in exchange for wastewater treatment.

Bob Lerch was the next to give an activity update. Bob has been working with Lynne Hooper to start developing rating curves on three streams in the watershed (Turkey Creek near Tom Bass Road, Little Bonne Femme Creek at Woodie Proctor Road, Bonne Femme Creek at Nashville Church Road) in conjunction with the County's gauging stations. This work has been limited because of how dry it has been recently. Bob's lab has acquired a new acoustic doppler device for measuring flow which should make calculations for the cross-sections easier. The 2016 and 2017 data for the BFWP project have been passed on to Lynne. In 2018, there will be measurements of suspended sediments, total nitrogen, and total phosphorus which were not included in the 2016 and 2017 data. Bob believes that the suspended sediments will correlate well with *E. coli* concentrations in the study streams. There was recently a meeting at RBMSP to discuss old data (2003-2007) and new data (the last 15 months) – most sites are not very different with respect to most of the parameters measured. On the down side, the Devil's Icebox Spring Branch has not improved with time. He pointed out that Bonne Femme Creek at Highway 63 is the primary source of water to the cave system, and *E. coli* measurements there are not as high as at Devil's Icebox Spring Branch. It becomes evident that much of the *E. coli* is entering the cave system from the Pierpont sinkhole plain. The *E. coli* levels have been reduced at the sampling site at Fox Hollow Branch as there are no longer cows grazing near the stream.

Tom Ratermann mentioned that the Bonne Femme Mobile Home Park has been connected to sewer services. There should have been a reduction of *E. coli* entering the stream from the mobile home park. Prior to the sewer connection, there was a lagoon not far from the swallet hole. Lynne should ask Tom to look up the date of the connection when she is at the Boone County Regional Sewer District office. The Therapeutic Riding Center may also be a source of *E. coli* in Bonne Femme Creek.

Bob mentioned that he will also be working on other aspects of the science necessary for the 9-element plan. He is hopeful that we can use the sensitivity analysis from the 2003-2007 Chapter 319 grant process. Bob is also updating the QAPP for the sample collection that he and his lab are doing in the watershed.

The Education and Outreach Subcommittee met since the last time that the Technical Advisory Team had a meeting. Dates have been selected for 2018 activities.

Lynne next talked about the Chapter 319 subgrant proposal that will be submitted to MDNR. Boone County Stormwater put together a rough outline of the proposal and sent it over the MDNR on December 27th to get feedback. Copies of the outline were handed out to those in attendance for review. The main objective of the outline was to present a general idea on how each of the 9 elements would be handled. The feedback from MDNR was very positive overall, and they requested additional information. MDNR did request a GIS analysis of land use in the Greater Bonne Femme Watershed to justify the use of the 2005 sensitivity analysis. Lynne has requested that the Boone County IT Department perform this analysis. The County is still working to develop a best management practice demonstration project for the subgrant proposal. The stormwater team is working with Boone County Public Works to select a location on county property. MDNR staff also requested an updated QAPP. Lynne will be working on developing the budget for the subgrant further, including match.

Lynne recently renewed the research permit at RBMSP. Park staff at the state level required that she submit copies of the data collected during the last permit cycle which was then submitted.

The next topic for discussion was the Land Management Techniques Workshop scheduled for February 10th. Lynne handed out a few flyers that team members could post. A special BFWP folder has been printed – materials provided by presenters will be collected in the folders and provided to attendees the day of the workshop. A discussion of remaining details of the workshop followed.

The next meeting was scheduled for February 23, 2018. We will try to schedule the next meeting in Ashland.