

South Branch Root River Watershed Project
May 10, 2007 Meeting Notes

In attendance: Jeff Weiss (DNR Fisheries), Lee Ganske (MPCA), Stafford Hanson (Fillmore Co. Commissioner), Keith Voorhees (Clayton Twp), Bill Sweetser (Bennington Twp), Donovan Ruesink (Forestville Twp), Rich Biske (The Nature Conservancy), Mark White (Forestville/Mystery Cave State Park), Jerry Tesmer (U of M Extension), Adam Birr (MDA), Donna Rasmussen (Fillmore SWCD)

U of M Extension nitrogen test plot data for SE MN: Jerry Tesmer, U of M Extension-Fillmore County, outlined three common approaches to nitrogen application: 1) rule of thumb, which was 1 to 1.2 pounds N per bushel of yield, 2) rely on tradition and what worked in the past, or 3) based on research and economics. He reviewed the new U of M recommendations, which are based on research and economics. A six-state database was used to determine the economic optimum nitrogen return or EONR (a.k.a. maximum return to N or MRTN). The N price to crop ratio most commonly used is 0.10 which represents \$2.20/ bushel corn and \$0.22/lb N. An example of how this ratio can change is with the current rise in corn prices (now at \$3.08) and rising N prices (e.g. urea at \$0.58/lb), a ratio of about 0.20 which corresponds to a MRTN of 90 lb/acre. Test plots near Harmony (Mensink/Dornink/Boice) utilized hog manure testing at 76-36-50/1000 gallons. Applications included no manure, 3200 gal/acre, and 4000 gal/acre plus 0, 40, 80, and 120 lb. N/acre. Yields with no manure and no fertilizer averaged 168 bu/acre. The largest increase in yield was seen with additional manure up to about 230 bu/acre. Yields actually dropped with additions of 80 and 120 lbs commercial fertilizer to the manure. The results show a benefit from the manure other than just the N content and the damage to yields that can occur with overapplication of N. A dairy manure site in Winona County in 2005 showed yields of 174 to 200 bu/acre without any manure or fertilizer. The EONR was 80 to 113 lb N/acre. Test plots using composted bedded pack manure are being set up in 2007. A study of nutrient content in this type of manure was done at the Duane Bakke farm from his swine hoop houses. Tests showed a wide variability in the nutrient content. This confirmed the findings published in an Iowa State University publication. Although the N content may not be a significant source for crops, it has been found that solid manure that is not incorporated has benefits for soil erosion control and soil tilth. Increasing phosphorus fertilizer costs due to transportation costs could increase the value of manure, especially hog manure. More research is needed related to soil type and its effects on N utilization and yields.

Discuss revising watershed program guidelines/update on enrolled acres: With the project entering its last year, it is time to evaluate how the program sign ups are going and if adjustments should be made to some of our guidelines to help encourage more sign ups. It is also time to think about future plans for the project if further funding is to be pursued. A summary of the progress in the programs to date in relation to the initial goals of the programs was reviewed. About one-third of the program dollars have been spent. There have been no sign ups for the nutrient management incentive and very few signed up for woodland stewardship plans. The upcoming forestry workshops may increase interest in those plans. Finding a wetland restoration site has proved difficult, but there may be a need for those funds to help encourage adoption of buffers along JD #1, especially for the side inlets along the ditch. Getting the rental payment to the level of current land rental rates may be enough to get more interest from landowners. Rich mentioned that BWSR is revising RIM which may offer some opportunities after CREP is no longer available. MN DOT also has some windbreak bonus funds that could possibly be utilized.

Discuss role of townships in the watershed project: Don Ruesink has indicated an interest on the part of their township to help promote some BMPs in the watershed. Although townships cannot pay funds to individuals or businesses, there is still a role in getting the word out about the watershed programs with their neighbors and constituents. Donna will visit each of the township boards to remind them of the programs and ask for their assistance in this regard. There was considerable discussion about the difficulties with generating interest with landowners and what the barriers are for participation.

Updates:

MDA monitoring stations: Adam reported that the equipment for the two new stations in the JD#1 watershed should be up and running in June. Grab samples are already being collected and DNR staff are measuring flows to develop rating curves. The station at Forestville is being moved upstream a few hundred feet along the river next to the picnic shelter to better accommodate the additions by MDA. The data from this location will be comparable to that that has been collected at the bridge over the past several years. An electrical hookup is being added and, hopefully, a phone connection for real time data access.

WSU contract for stream channel survey for SWAT model: A contract for about \$20,000 is being developed with WSU's SE MN Water Resources Center to do a stream channel survey and measure how much water is being lost through the bottom of the stream by measuring the change in temperature from the stream through the substrate. This information will be used by MDA in the SWAT model analysis. Adam attended a national SWAT conference in Texas last week, and they are very interested in the use of the newly developed karst component and the research that will be done in this watershed. The request for approval of the contract is on the county board agenda for May 22. Funding from the grant is from the evaluation budget of \$50,000. A follow-up FANMAP survey is also planned from these funds next winter.

Forestry workshop schedule and publicity: The schedule has been set for six forestry workshops starting in June. A list of landowners with forest land has been developed by the SWCD so postcards will be mailed to them for each session, plus newspaper articles will run prior to each workshop. The schedule was also in the newsletter that just went out, and copies were handed out to those in attendance.

March 22 streams class and volunteer recognition: There were 13 volunteers who attended the recognition event and received their 1-, 2-, and 5-year appreciation gifts. Sheila Harms from the SE MN Water Resources Center at WSU helped organize the event. Six volunteers along with 7 others from the area attended the Streams class at Kingsland later that evening taught by Jeff Weiss (DNR Fisheries) and Karen Terry (U of M Extension). A new volunteer signed up to do monitoring after the class.

Conservation drainage site wood chip biofilter installation: The installation was done April 25th. We may visit the site at the July meeting.

Grazing workshop schedule (RC&D and MDA): The RC&D workshop schedule was published in the newsletter. The MDA schedule is still getting finalized.

The meeting adjourned at 8:25 p.m.