

South Branch Root River Watershed Project
Meeting notes for July 13, 2006

In attendance: Keith Vorhees (Clayton Twp), Bill Sweetser (Bennington Twp), Lee Ganske (MPCA), Rick Morrison (Mower SWCD), Craig Schrader (U of M Extension), Rich Biske (The Nature Conservancy), Mark White (Forestville/Mystery Cave SP), Fred Beier (Property owner), Carol L. Kohn (Property owner/volunteer), Raymond and Donna Cerise (Farmer/owner), Tom and Susie Kjeer (Farmer/neighbor)

MDA Conservation Drainage Demonstration Project: MDA received a USDA Conservation Innovations Grant to demonstrate two methods for controlling drainage discharge to make water available to crops when needed and to reduce nitrogen losses. Two methods are demonstrated on this site owned by Ray and Donna Cerise: three-foot tile depth and four-foot tile depth with control structures. Ray wanted to manage the drainage system to conserve water and nutrients, or as he says, he “would rather feed corn than fish.” Tiled ground takes more N, about 50-70 pounds per acre on average. This project may help to find out how much is lost and how it could be held in the field while allowing the water to flow in the spring and fall during field work. The water was shut off in the demo plot about 8 weeks ago, so it may be possible to see if there are yield differences in the plot compared to other fields where the tile lines continued to flow.

This site was extremely wet so it presented some challenges. On fields of 1% slope or less, there is 1 control structure for each 10 acres. More structures are needed if the slope is more than 1%. The cost is \$270 to \$300 per acre. When amortized over 15-20 years, the cost is reasonable. NRCS is adding the practice to the cost-share docket. The practice is being used in Illinois to hold back N from October through April since the ground does not freeze and there is more rain than snow. The time to hold back the nitrogen in more northern climates is in the spring and summer. The seals in the control structures may crack and leak and may need replacement, but that is about the extent of the maintenance needed. Increased yields with decreased inputs have not been seen at Waseca, but have been seen in other states. The practice has its limitations for use in SE MN because so little land is less than 1% slope and it does not hold back water at times when peak flows should be reduced. However, it does help to hold small amounts of rain better for better utilization by the crop. Normally, tile lines start running about 45 minutes after the rain begins. A bioreactor demo is also planned for the site. A trench will be dug and filled with wood chips within a foot and a half of the surface. Tile water going through the wood chips has virtually all the N removed. This practice has no slope limitations. The monitoring at the site includes continuous flow measurements (although no water was running now) and grab samples that will be analyzed for nitrogen concentrations. Thanks go to Ray and Donna for sponsoring the demonstration, MDA staff Mark Dittrich and Craig Schrader, U of M Extension, and Rick Morrison of the Mower SWCD for coordinating various aspects of the project. Rick was instrumental in finding the site.

NRCS Earth Keeper Awards are being awarded to Carol Kohn, Tom Schmitz, Bob and the late Eloda Wood, and to Warren Netherton and the Mystery Cave staff, who were all part of the first group in the state to participate in the MPCA Citizen Stream Monitoring Program starting in 1998. Carol was presented with a T-shirt, travel mug, pen, and tote bag with the NRCS Earth Keeper logo in recognition for her volunteer service.

Judicial Ditch #1 Maintenance Project: Rick Morrison is the County Ditch Inspector and is overseeing the clean out of JD#1. Requests were made several years ago by the landowners along the ditch to do a maintenance project to allow better drainage. No maintenance had been done on the ditch since it was built in the early 1900s. After the bids were let, the project has been in the hands of the engineers. Tree removal began last winter. Sediment removal to the original depth of the ditch and leveling of the spoil banks were deemed necessary to make the ditch fully functional. Up to 4 feet of sediment has been removed from some areas, so the damming effect is gone. There have been environmental concerns about increased water flows downstream and disruption of the warm water stream habitat due to the project. During the clean out process, there have been other concerns about bank stabilization and waterways discharging into the ditch. MPCA has contacted the contractor about implementing better soil erosion control. The dry weather has diminished the germination of the seed on the bare soil. Under the MPCA construction storm water program, mulch blankets are required within days of disturbance. The outlet area does have a mulch blanket which has good plant growth. A 1 rod grass strip is required as a buffer. CRP buffers will be promoted with the landowners also. Only 1 acre of wetland was not avoided. That will be replaced at a 2:1 ratio. The clean out should be completed in 2-3 weeks if the weather remains favorable. The remaining lip of the spoil banks will be leveled more in the fall after harvest. The assessment is \$43/acre over ten years.

The meeting adjourned at 9:00 p.m.