

South Branch Root River Watershed Project
May 4, 2006 Meeting Notes

In attendance: Lee Ganske (MPCA), Adam Birr and Mark Dittrich (MDA), Jeff Green (DNR-Waters), Jeff Weiss (DNR-Fisheries), Fred Beier (Property owner), Chuck Amunrud (Fillmore Commissioner), Keith Vorhees (Clayton Twp Supervisor), Dale R. Rossow (Dexter), Neal Mundahl (WSU Biology), Donna Rasmussen (Fillmore SWCD)

Introductions were made. Due to technical difficulties, the agenda was modified a bit.

American Farmland Trust BMP Challenge: This program reduces risks for farmers who try BMPs by providing a production guarantee for trying reduced tillage and nutrient management following U of M recommendations. It's not insurance, but it pays farmers if they show a net loss on acres where BMPs are implemented. A farmer can sign up to 120 acres in the program. Side by side strips compare the BMPs to the practices normally used. The BMPs that are being encouraged match with the incentives being offered in the watershed for reduced tillage and nutrient management, so we could combine the programs to make it more appealing to try the BMPs. Although it's a little late this year to get people signed up, we can work on this throughout the next year. Program is funded with a grant from the USDA NRCS. Handouts outlined some of the details. Workshops may be planned with MDA this coming year for farmers, co-ops, etc. offering CEUs. The price of corn can be changed to better reflect current market prices.

Updates: Program sign-ups: Hay set-aside has been the most active program with 6 contracts signed this year for 82.5 acres plus one contract from last year for 2.5 acre CRP waterway in Mower County. This is about half of our goal of 200 acres. Most are field borders. There are a couple of people who may be signing up for the CRP bonus payment in the near future, some of whom are enrolling in CREP. Many of those would be riparian or sinkhole buffers. Four septic system loans have been issued in all, but more area expected since the ISTS inventory has been completed in Bloomfield, Forestville, and Beaver townships. There has been only one sign-up to date for the Buffer Bonus payments. Two forestry plans are complete or will be completed.

Jeff Green released dye in April at Warren Freeman's, Joe Austin's and in Section 34 of Forestville. The results have not been analyzed yet, but they should be available for the July meeting. If the dyes are not detected from this first trace, it will be redone. Other areas have been chosen for the remaining dye traces for the project.

The website information is all submitted to the webmaster. That should be up and running soon. Go to www.co.fillmore.mn.us to see meeting agendas and notes, maps and pictures, monitoring data and graphs, newsletters, reports and studies (Phase I, FANMAP report), financial assistance program information, and links to agencies.

Education activities: Two presentations to Kingsland Vo-Ag classes utilizing monitoring data from the South Branch relating it to monitoring the classes are doing on Spring Valley Creek. Nitrate clinic in Ostrander on April 25 prior to the ISTS Homeowner Operation and Maintenance class. There were 22 water samples tested, 8 of which had nitrates over 10 ppm. There were 24 who attended the ISTS class. The watershed display is currently at Trinity Lutheran in Ostrander for their Soil and Water Stewardship Sundays.

Fillmore County ISTS Pilot Inventory: 10 townships completed including Bloomfield, Forestville, and Beaver. About 300 imminent public health threats (IPHTs) identified countywide. In the three townships in the watershed, there are about 40 IPHTs.

Total Resource Management Basinwide Initiative: Four watershed projects in the SE are working on a plan to implement TRM to address a range of contaminants of concern (Cannon River, Zumbro

River, Whitewater River, and Root River). It was decided to apply for a 319 grant in the fall to pursue efforts in these four watersheds. There are three areas of focus: 1) Innovation-demonstration site in each watershed, 2) Adoption- hire part-time staff to go through checklist with farmer and a TRM manager to guide demonstrations, analyze and present results, and do publications for all four watersheds, and 3) Recognition – signs, meetings, website, and project administration by a regional entity (e.g. RC&D). Education in schools may be included using the River Friendly Farmer curriculum.

Mark Dittrich reported that monitoring equipment was to be installed this week at the Ray Cerise conservation drainage site but had to be postponed due to an injury. The equipment will monitor flows and nitrate samples will be collected once a week while the water is flowing. A field visit could be planned for the July meeting.

BREAK

What lives on the South Branch? Results from biological monitoring efforts: The watershed assessments done in the Phase I Diagnostic Study included fish and macroinvertebrate surveys conducted by Neal Mundahl and his biology students from Winona State University. About a dozen sites were surveyed in 1998 and 1999. Since 2003, four of those sites have been monitored by Mark White and SWCD staff. Neal reviewed the results so far and how they compare with the 1998 and 1999 results.

Sites were rated using an Index of Biotic Integrity (IBI), which assigns values to the attributes of the organisms and the types and numbers of organisms at the site. When surveying fish, two IBIs are used, one for cold water and one for warm water. There are 12 metrics with each given a score from 0-10, so the score for a site can range from 0-120. Cold water and warm water are important for the fish species that can live in a stream. In cold water streams, it is better to have fewer fish species, and in warm water streams, it is better to have more species.

The benthic IBI used for invertebrates has 10 metrics with possible scores from 0-10 for each. There are not separate cold water and warm water IBIs for invertebrates. Reference sites for the best sites have benchmarks for the total number of species, number of stonefly species, etc. to which the monitoring sites are compared. More species results in better IBIs. There is no correlation between fish IBIs and invertebrate IBIs.

Poor scores correlate with sediments in the streambed because invertebrates need a rocky habitat. Scores also correlate with overall depth, buffer width, and the amount of exposed streambank. It is believed that organisms will move down into the substrate for short periods of time during flooding events for protection, but they cannot stay there for long periods of time.

The South Branch at the Hafner bridge north of Etna has had fair to good scores. The South Branch at Mystery Cave has been very good to excellent. The South Branch just upstream from the confluence with Canfield Creek has been variable from year to year. A trend graph using the 1998 and 1999 data showed improving conditions from upstream to downstream until the river enters the park.

Results from the Whitewater River data over several years shows that streams tend to stay in the very good to excellent category with less variability from year to year in springfed streams where the temperature is stable and the substrate is rockier. Streams in the good to poor categories tend to undergo more flushing events and have more fines in the substrate. This could be connected to the types of springs that feed the stream since large karst springs tend to be more flashy and non-karst springs have more stable flows. This seems to be confirmed by tritium data for these types of springs because karst springs have more recent water while non-karst springs have more of a mix of recent and old water.

There was discussion about how Trout Unlimited's Driftless Area Restoration Effort could benefit southeast Minnesota trout streams.

The meeting adjourned at 8:20 p.m.