

Nemadji River Stewardship Committee Meeting 3-10-2009 Summary

List of attendees:

Kelly Smith-Carlton Co. Soil and Water Conservation District
Karola Dalen-Natural Resources Conservation Service
Ryan Hughes-Board of Soil and Water Resources
Susan Oswood-Landowner
Mark Thell-Carlton Co. Soil and Water Conservation District
Cordell Manz-Wis DNR, Superior
Deserae Hendrickson-Mn DNR Fisheries, Duluth
Heather Cunningham-Carlton Co. Planning and Zoning
Greg Bornu-Carlton Co. Land Dept.
Karen Evens-MPCA, Duluth
Karl Koller-Mn DNR Ecological Resources, Grand Rapids
Irvin Mossberger-UM-Duluth-Dept. Geology
Brad Matlack-Carlton Co. Soil and Water Conservation District
Kirstin Swenson-Carlton Co. Soil and Water Conservation District

(Presenters in bold)

Kirstin Swenson-introductions, background to project and stewardship committee

Karola Dalen, Soil Conservation Technician, NRCS, Carlton County
Environmental Quality Incentives Program (EQIP)

See slide presentation for full details.

Additional notes:

- Technical assistance is free and producer does not necessarily be on a plan to use technical assistance.
- Implementation of cost-share practices use the same guideline as state regulations when considering setbacks.
- Signups are usually during March, but due to the new Farm Bill, the sign up date may be pushed back.

To connect staff about EQIP, contact your area NRCS Office:

<http://offices.sc.egov.usda.gov/locator/app>

Kelly Smith, Conservation Technician, Carlton County SWCD
State Cost Share and other assistance provided by Carlton SWCD

See handout for more details.

- State cost share assistance encompasses many types of landowners. Landowners do not necessarily have to be an agricultural or forest producer. Depending on the need/project, state cost share assistance can be used along with EQIP.
- Traditionally, cost share has been a “dirt moving” and seed/planting program that involves on the ground projects and not necessarily incentive payments. The practices are geared toward water quality and soil protection (with windbreaks as an exception).
- Property tax relief programs are also available for landowners who qualify. Website: <http://www.myminnesotawoods.umn.edu/legal/proptax-over.html> offers more information.
- Many erosion control projects have been completed in the Nemadji River watershed with cost share and other money. See website link entitled “Conservation Practices in the Nemadji Watershed” that serves as a picture guide to some practices that have been completed in the watershed.
- State Cost Share grants allow 2 years to complete the work. The practice must be maintained at least 10 years, during which period site visits are made. Technical assistance is often available to the landowners for free.
- Well sealing (an example of a cost share practice) is done in the county in order to protect groundwater from contamination and also for safety.
- Carlton County typically has about \$10,400 available per year in cost-share money.
- EQIP funds available were about \$200,000 last year.
- Agricultural BMP loans are available through Cornerstone Bank and there is typically \$500,000 per year available for loan.

Updates:

Kirstin Swenson, Carlton County SWCD
Deer Creek/Nemadji River Turbidity TMDL Study Update

See slide presentation for details.

- TMDL Monitoring plan is completed and available via the Carlton SWCD website. Monitoring plan includes plans for data collection at 7 monitoring sites in order to obtain needed data for sediment loading calculations to complete the TMDL study. Additional study in the watershed is included in the plan. See plan for full details:
<http://www.carltonswcd.org/2009MonitoringPlanDeerNemadjiTMDL.pdf>
- Volunteers will also be monitoring in the watershed. They will be collecting transparency tube data and rain gauge data to further aid in an understanding of

- the watershed and possible sediment sources. Volunteers will be trained on March 28 at a workshop held by Minnesota Waters.
- Deer Creek TMDL Education tool will be developed in order to teach landowners and other stakeholders about the TMDL study. L-THIA model was demonstrated as a possible teaching tool that could be added as a link on the SWCD website. The teaching tool will also consist of other information housed on the SWCD website.

Cordell Manz, Wisconsin DNR, Superior, WI

2009 Proposed Monitoring Plans in the Nemadji River Watershed

- A proposal for funding of additional monitoring in the Nemadji River watershed was made for 7 sites. Three sites are located on the main stem of the Nemadji River and additional sites are on Mud Creek, Clear Creek, Balsam Creek, and the Black River. The proposal was made to sample 7-10 times throughout April-October in addition to some rain events. Data will be collected for turbidity, TSS, nutrients, pH, conductivity, and transparency tube. Fish IBI and Macroinvertebrate IBIs will also be completed at the sites. The continuous flow station on County Rd C will remain active. The proposal was written in hopes to complete a 303(d) assessment of the Wisconsin side of the Nemadji River and some tributaries.

Deserae Hendrickson, Minnesota DNR Fisheries, Duluth, MN

2009 Fisheries Monitoring Plans in the Nemadji River Watershed

- A full survey will be completed on Spring Creek which is a tributary to the Blackhoof River. Only a portion of Spring Creek is designated as a trout stream. The full survey may result in designating it as a trout stream in its entirety. Additional fish data will be collected on Deer Creek and N. Fork Nemadji River. Temperature probes will be installed on these streams. Temperature probes will also be installed in Rock Creek, S. Fork Nemadji River, and an additional unnamed tributary.

Irvin Mossberger, UM-Duluth, Geology Department

Revised Results of Slump Prediction Model

- The goal of the research project is to produce a predictive model or map that show susceptibility to sediment volcanoes and slumps. Methods of the model involve raster analysis using GIS software.
- Updates since that last discussion of the model: Additional slump inventory data was collected from a study conducted by Wayne Wold and a separate study done by the DNR. 137 slumps were identified in Wayne Wold's study and 185 slumps were identified during the DNR erosion study for an addition of 322 slump site to the model. The new data has provided prediction results of 80% correlation. The study has also indicated that slope and water pressure are the driving forces.
- Question of scale on the identified slumps, which has not been determined. Also, clay soils are focus of the study but non-clay areas of the watershed can also be slump prone.

- The mud volcanoes and they are generally located at the same elevation. The MPCA is also working on a modeling study of the Deer Creek, which will also help answer some questions about the presence of the mud volcanoes.

Karen Evens, Minnesota Pollution Control Agency, Duluth, MN

Lake Superior Streams Turbidity Study

- The MPCA is currently planning a study that will focus on 12 streams in the Lake Superior Basin with turbidity impairments. The study is a research effort to address turbidity impairments at a watershed level using WARSSS (Watershed Assessment of River Stability and Sediment Supply) and additional techniques. The Reconnaissance Level Assessment (RLA) has begun with GIS map work done by NRRI. Environmental disturbance/stressor scores are being assigned to sub-sub watersheds. Natural disturbance components (such as the work being done by Irvin) will be added to the mapping work. Reference conditions will be selected in each watershed in order to help define natural conditions of the impaired/stressed areas. This project will likely occur over 6-7 years. This idea is currently being tested on the Poplar River and work on the Nemadji will likely commence in a year.