

# Watershed News

April 2005

## South Branch of the Root River Watershed Project

### **ANNOUNCING**

The South Branch Root River Watershed Project  
has been awarded  
\$299,420 in Federal 319 Implementation Grant funds and  
\$300,000 in Clean Water Partnership Loan funds

Over 70% of the funds to be received will be used for landowner assistance payments in the form of cost-share, incentive payments, or low-interest loans.

Grant funds will be used to put Best Management Practices (BMPs) on the land:

- Buffer Bonus Program
  - \$7/acre for conservation tillage that increases crop residue, or to establish a cover crop
  - \$4/acre for nutrient management plan implementation
  - Eligible acres are adjacent to new or established conservation buffers; up to 40 acres for three years
- Hay Set-Aside Program
  - \$50/acre to establish hay or grass buffers in sensitive areas (along streams, sinkholes or wetlands, field borders); up to 20 acres for three years
  - May be hayed until September 15
  - May be a bonus payment for establishing a new Continuous Conservation Reserve Program (CCRP) buffer on eligible acres; no haying allowed if in CCRP
- Low-Cost Feedlot Fix Cost-Share Program
  - 50% cost-share up to \$1000 for low-cost, non-engineered practices that reduce polluted runoff from feedlots, e.g. roof gutters, diversions, grassed filter strips, fencing
- Riparian (streamside) wetland restoration demonstration for temporary water storage
- Financial assistance for Woodland Stewardship Plans and voluntary conservation easements
- Reduced cost well water testing for coliform bacteria and atrazine

Low-interest loan funds will be available for:

- Upgrading existing failing and non-conforming septic systems (new construction not eligible)
  - 3% interest for five years for systems costing up to \$6000
  - 4% interest for ten years for systems costing between \$6000 and \$8000
  - Loans are recorded as a lien on the property taxes and paid back with the property taxes
  - No collateral or credit check required
  - Loan applicant(s) must own the property and property taxes must be current
- Upgrading milkhouse waste systems

WATERSHED PROJECT  
IS SPECIAL FOCUS AREA FOR  
GOVERNOR'S CLEAN WATER INITIATIVE

In 2003, Governor Pawlenty announced his ten-year Clean Water Initiative, which targets four areas of the state for special water quality concerns. In southeast Minnesota, impaired waters are the issue of concern. The Root River

Based on water quality monitoring data from 1999 to 2002 for the South Branch Root River, the average fecal coliform bacteria levels were 553 organisms/100mL, over 2 times the surface water quality standard. At these levels, the river is impaired for use for swimming and other water contact activities.

watershed is the pilot watershed for the Initiative, which has set goals to reduce fecal coliform bacteria by 65% and sediment by 30% by 2014 in all the streams in the southeast part of the state. The

South Branch Root River project is a special focus area for the first three years of the Initiative. The BMPs put on the land in the watershed will be evaluated for their effectiveness in reducing fecal coliform bacteria from sewage and manure, as well as sediment and other pollutants that are contaminating our streams and ground water.

Application for the watershed programs will commence as soon as all grant and loan agreements are completed with the state.

*For more information about any of the programs or to find out if you live or own land in the project area, contact Donna Rasmussen at the Fillmore SWCD office at (507)765-3878, ext.*

*122, or email [donna.rasmussen2@mn.nacdnet.net](mailto:donna.rasmussen2@mn.nacdnet.net), or contact the Mower SWCD at (507)434-2603.*

Monitoring data from 1999 to 2002 for the South Branch measured average turbidity levels over 3 times the warm-water stream standard and over 8 times the cold-water stream standard. Turbidity is caused by eroded soil in the water and by excess algae growth due to excess nutrients in the water. This segment of the Root River is considered impaired for aquatic life (fish and invertebrates) due to turbidity.

WATERSHED REPORT COMPLETED ABOUT  
CURRENT FARMING PRACTICES

From February to June of 2004, Denton Bruening from the MN Department of Agriculture (MDA) interviewed 61 farmers in the South Branch Root River Watershed Project area about current farming practices. The participants were chosen at random and spent anywhere from one to four hours providing information about tillage, nutrient management and pesticide management practices on their farms. The results were analyzed using the Farm Nutrient Management Assessment Program (FANMAP).

A report about the results is now available. Of the 74,300 acres in the watershed, almost 31,000 acres were inventoried in the interviews. This is 42% of the entire watershed project area or 52% of the 59,400 acres that are cultivated in the watershed.

Field corn received over 90% of the commercial nitrogen and phosphate fertilizer applications. Fall application of nitrogen is still done in the watershed, although it is not recommended in Fillmore County and, in Mower County, should only occur after November 1.

Of the 61 farmers interviewed, 26 had livestock. Livestock manure was applied to only 2,713 inventoried acres with 87% of those acres planted to corn. Although beef cattle accounted for the most manure with regard to nutrients, only 25% of those nutrients were collected for application to cropland. Liquid hog manure accounted for 71% of the first year available N from manure on inventoried acres. Manure applied to 975 acres came from outside of the watershed.

For the most part, farmers were setting realistic yield goals and 52% were at/below or not more than 20 pounds over the University of Minnesota recommended rates for N. The highest rates of overapplication were on fields with yield goals over 175 bushels per acre.

Other data analyses in the report relate to pesticides (including atrazine usage) and tillage.

## LIVESTOCK INITIATIVE RECOMMENDATIONS FOR COMP PLAN

Livestock are good for the environment and good for the economy. This is the message the New Look at Livestock Initiative wants to promote. Livestock need hay and pasture, which maintain permanent vegetation on the land reducing soil erosion. Properly managed manure is a valuable resource for building soil quality and fertility, which reduces runoff and the need for commercial fertilizers while increasing water infiltration.

Unfortunately, livestock numbers are dropping in the southeast Minnesota. From 1981 to 2001, cattle and calves dropped from 159,800 to 89,700, a loss of 64,900 animals. Beef cows and dairy cows also decreased by 16,400 and 11,600, respectively. In the same time period, the number of acres in hay dropped by 11,700 acres. Add to that a decrease of 24,800 acres in oats and barley, and a decrease of 50,700 acres in corn, and the 71,300-acre increase in soybean acres is explained. Even when no-tilled, soybeans on steep slopes have compounded erosion problems because of how little residue soybeans produce.

The New Look at Livestock Initiative idea was formulated by the Basin Alliance for the Lower Mississippi in Minnesota (BALMM) and is being piloted in the South Branch Root River watershed. The Initiative's purpose is to maintain and enhance the livestock industry in the Root River watershed and in the rest of SE Minnesota. Members of the group include Lucy Drinkall, Steve Heusinkveld, Vance and Bonnie Haugen, Jo Olson, Kenric Scheevel, Dan Miller, Todd Hendrickson, and Paul Hamann, and staff from the MN Department of Ag, MN Pollution Control Agency, SE MN Ag Alliance, and Mower and Fillmore counties.

In an exercise to identify the key issues affecting the livestock industry, land use and zoning issues were a top priority. One of the first tasks of the Initiative was to develop recommendations for the Fillmore County Comprehensive Plan, which is in the process of being updated. The recommendations have been incorporated into the

first draft of the new Agricultural Policy in the Comp Plan, which is printed below.

### Goals for Agriculture Development

- To protect and preserve prime land and land that is productive for agricultural uses in the Ag District and permit development of single family non farm dwellings on less productive land in the proximity to existing incorporated and unincorporated communities.
- To protect the economic viability of Agricultural Uses.
- To encourage sound agricultural management practices which protect groundwater and surface water from contamination.
- Support value-added business and industry related to agriculture.
- Recognize the economic and environmental benefit of a strong livestock industry.

### Proposed Policies for Agricultural Development

1. Support livestock production, especially in a manner which keeps land in perennial vegetation, such as hay and pasture and other land uses that are more environmentally sound.
2. Offer technical support and financial and other incentives which support the development of value-added industries related to livestock production and encourage youth in agricultural industries.
3. Commercial and industrial and other non-farm development not related to or are incompatible with agricultural operations will be restricted or carefully controlled on prime farm land and land that is productive for livestock uses.
4. Service levels in rural areas will be primarily aimed at satisfying the needs of agriculturally related activities. An extensive level of urban services may not be provided by county or township governments.
5. Structures of all types should be required to meet safe setback requirements at intersections and along all right-of-ways.
6. Utilize a science-based approach to odor-related issues in determining the setback distances between livestock facilities and rural residences.
7. The county will work with individual landowners and various Agencies to develop new strategies for farm practices that follow the Fillmore County Comprehensive Water Management Plan.

Water is the driving force of all nature.

Leonardo da Vinci

## Township Officers Watershed Tour

Thursday, June 9<sup>th</sup>, 2005  
3:00 to 8:00 PM

**PLEASE RSVP by June 6<sup>th</sup> by calling  
(507) 765-3878, ext. 122 or emailing  
donna.rasmussen2@mn.nacdn.net**

Tour includes:

- septic system installation  
(weather permitting)
- feedlot site visit
- wetland complex
- blind valley
- sinkhole and riparian (streamside)  
conservation buffers
- and more of the landscape and beauty  
of the South Branch watershed

**FREE Cave Tour offered at 2:00 PM**

Watershed tour leaves Mystery Cave at 3:00  
and returns at 8:00 p.m. **One-day park  
passes will be provided at no charge.**

### FREE WOODLAND STEWARDSHIP PLANS

Woodland owners in the South Branch Root River watershed can have a Woodland Stewardship Plan developed for their property at no charge. Grants for plan writing are from watershed project funds received to improve water quality.

The minimum size for a plan is 20 acres. The 20 acres can be a mix of woods and grassland that are not currently cropped or grazed, or land that the owner wishes to remove from agricultural use.



A Woodland Stewardship Plan is a tool that landowners use to determine how best to manage their non-crop and non-pastured land. The plan consists of two portions, the largest of which is a binder of general woodland management information, such as tree planting, wildlife, water resources, timber stand improvement, and other forest-related topics.

The second portion is a property-specific plan written for your land. It includes descriptions of the vegetation, soil, and potential for management. Possible management options are given that try to match the possibilities with the landowner's specific goals. Goals may include improved wildlife habitat, protection of soil, enhanced natural plant communities, aesthetics, recreational opportunities, and generating income.

Once a Woodland Stewardship Plan is written and registered, the landowner is eligible for cost share funds for implementation of the plan. Cost share can be used for tree planting, native grass establishment, wildlife habitat improvement, non-native plant control, timber stand improvement, non-line fence construction to exclude livestock from woodlands, and other practices to enhance the natural resources on your land. Although cost share funding is sporadic, having the plan in place is the first step in obtaining funds to accomplish work and achieving your goals

### SIX VOLUNTEERS RECOGNIZED FOR STREAM MONITORING EFFORTS

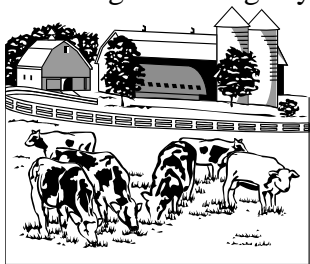
Six citizens were recognized by the MN Pollution Control Agency for their five years of service to the Citizen Stream Monitoring Program (CSMP) in the summer 2004 edition of the "Stream Reader". The CSMP Class of '98 (which was the first year for the statewide program) includes these South Branch Root River watershed volunteers:

*Diane Hafner, Spring Valley*  
*Carol Kohn, Ostrander*  
*Tom Schmitz, Preston*  
*Johannah Vreeman, Cherry Grove*  
*Bob & Eloda Wood, Wykoff*

THANK YOU for your faithful efforts!!

MN DEPARTMENT OF AG  
COST-SHARE FOR ROTATIONAL GRAZING

The MN Department of Agriculture (MDA) has received funding to demonstrate and monitor the environmental and economic benefits of rotational grazing practices on pastures along streams. The funds can be used to assist producers with installing watering systems, pipelines, pumps, fencing, plantings, and stream crossings. There is funding for five to six demonstration sites in SE MN, preferably in the Root River watershed.



Participants will receive:

- ✓ **65% cost-share** to install the practices listed above (this exceeds the EQIP rate of 50%)
- ✓ A grazing plan written by a grazing specialist
- ✓ Improved forage production
- ✓ Reduced costs of production
- ✓ An economic analysis of the grazing plan

The environmental benefits of rotational grazing include:

- ✓ Reduced runoff
- ✓ Reduced soil erosion
- ✓ Improved soil health and stability
- ✓ Improved rainfall infiltration
- ✓ Improved stream bank conditions
- ✓ More diverse wildlife habitat

If interested in learning more about participating in the MDA “Improved Livestock Management in Riparian Areas” project, contact the Fillmore SWCD office at (507)765-3878, or Wayne Monsen at MDA at (651)282-2261.

Concerned about bacteria or atrazine in your well water? You can have your well water tested for both bacteria and atrazine for just \$15! (A test for bacteria only is \$5 and for atrazine only is \$10.) Call the Fillmore SWCD office at (507)765-3878, ext. 122 for more information.

CSP DEADLINE IS MAY 27!

Sign up for the Conservation Security Program (CSP) in the Root River Watershed ends on May 27<sup>th</sup>. The application process must be complete by that date to be considered a valid application.

The following must be completed by May 27th:

- ✓ Signed and completed Conservation Program Application/Contract (CCC-1200)
- ✓ Delineation of the Ag Operation on aerial photos
- ✓ Completed Self-Assessment Workbook
- ✓ Completed benchmark condition inventory worksheets:

- Tillage/rotation worksheet
- Water quality eligibility checklist
- Nutrient/pest management benchmark documentation form
- Grazing lands self-assessment tool\*
- Control of land documentation\*  
\*(if applicable)

On average, participants need 3 appointments with NRCS staff to complete the process. Applicants should allow enough time to complete this process by May 27<sup>th</sup>. Contact your local NRCS office for more information.

DYE TRACING:  
Unraveling the Mystery

Over the next 3 years, dye trace studies in the South Branch Root River watershed will help in understanding the mysterious interconnections between surface water and ground water in this karst system. Fluorescent dyes are released into sinkholes while surrounding springs are monitored for the dyes. When the dye is detected and how much is found reveals the direction and rate of ground water flow. Past studies have shown that the boundaries that delineate a watershed and the direction that surface water flows are not always the same for ground water.

If a researcher contacts you for assistance, please be supportive of this research, which helps explain the complex, interconnected ground water/surface water system in our watershed.



**Conservation Reserve Enhancement Program (CREP)**

CREP offers the option of long-term easements (45 years or perpetual) to retire the most sensitive cropland in SE MN at new higher Conservation Reserve Program (CRP) rental rates plus bonuses and long-term Reinvest in Minnesota (RIM) easement payments. **Sign up begins June 6<sup>th</sup> at your local SWCD office.**

**\*\*Sample payment \*\***

CRP	using the maximum CRP payment of \$134/acre on 10 acres:	
	Regular CRP rental payment.....	\$134 x 10 acres x 15 yrs. = \$ 20,100
	+ 30% CREP incentive .....	\$ 40 x 10 acres x 15 yrs. = \$ 6,000
	+ \$10/acre signing bonus (upfront, one-time) .....	\$ 10 x 10 acres x 15 yrs. = \$ 1,500
	<b>TOTAL CRP payment.....</b>	<b>\$184 x 10 acres x 15 yrs. = \$ 27,600</b>
RIM	Easement Payment maximum of \$336/acre x 10 acres.....	= \$ 3,360
	(upfront, one-time payment)	

**TOTAL PAYMENT on 10 acres = \$3096/acre** **\$ 30,960**