

WATERSHED NEWS

March 1999

South Branch of the Root River Watershed Project

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)

INFORMATIONAL MEETING

Thursday, March 25, 1999

9:00 am to 11:00 a.m.

Ostrander Community Center

Topics:

- Priority Area Funding Process
- South Branch, Root River Watershed
- Upper Iowa Watershed
- Program Requirements
- Eligible Practices
- Application Process
- Ranking Process

Participating Agencies:

- Fillmore County Soil and Water Conservation District
- Mower County Soil and Water Conservation District
- Fillmore County Water Planner
- Natural Resources Conservation Service

FY 99 EQIP FUNDING IS ANNOUNCED FOR EQIP PRIORITY AREAS

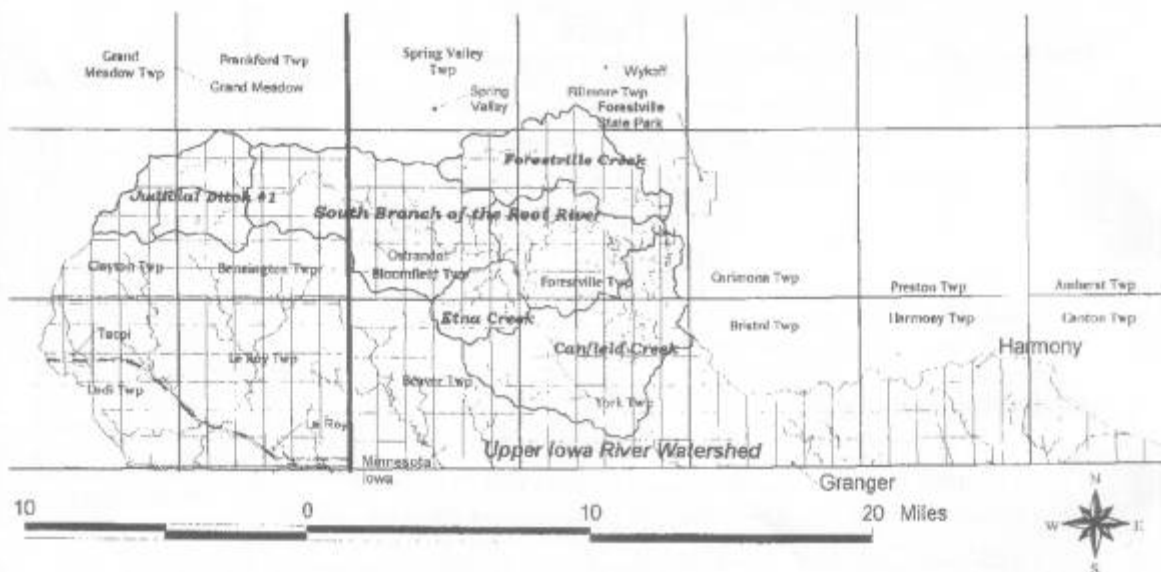
By David L. Aldeen, District Conservationist
USDA Natural Resources Conservation Service

The last week in January, the NRCS field offices were notified of the FY 99 EQIP Priority Area funding. It was announced that the Root River and Upper Iowa River Conservation Priority Areas (CPA) were fully funded. (See the accompanying watershed map for the CPA locations in Fillmore and Mower Counties.) The amount of funding was \$250,000 per Conservation Priority Area. The maximum dollar allocation to a CPA in Minnesota was \$250,000. Those producers not located in the Conservation Priority Area will be competing statewide for over \$1 million in EQIP. The final amount of statewide EQIP funding has not been announced at this time. To receive EQIP payments the producer must comply with all Highly Erodible Land (HEL) and wetland compliance provisions. Tentatively, the official EQIP signup period will begin April 1 and end May 28. Producer's applications received after October 1, 1998 will not need to apply. Those producers who applied for EQIP funding prior to October 1, 1998 (FY98) will need to reapply. *Producers can apply at the Farm Service Center at either the Farm Service Agency or NRCS-SWCD offices located at 900 Washington Street NW, Preston, MN or in Austin, MN, 101 21st St. S.E.*

Each EQIP application must either already have implemented or request sufficient assistance to provide the minimum resource protection:

- At a minimum, the application must cover all acres on the entire FSA tract.
- The land on the tract must have soil erosion (wind and water) and minor gully erosion adequately treated.
- If an animal waste system is requested, all acres where manure is applied must meet 1) the soil erosion control criteria and 2) develop and follow a waste utilization and nutrient management plan.
- The EQIP application must also adequately treat at least one additional resource concern besides erosion. Field visits by NRCS or SWCD staff may be needed to do an inventory of the tract and to assist them in the evaluating of your application. Each application will be evaluated and assigned a numeric point score based on the resource treatment and environmental benefits provided to the following factors:
 - Erosion Control
 - Water Resource Protection (both surface and ground waters)
 - Fish and Wildlife Habitat
 - Farmstead Energy Conservation
 - Forest Resource Management

Producers with questions about EQIP or any other soil and water resources concerns please stop into the office or give the Preston office a call at (507) 765-3879 or Austin office at (507)433-8268.



DNR Aquatic Plant Restoration Program

By Bob Moody

Assistant Area Supervisor, DNR Fisheries-Lanesboro

The state legislature recently created and funded an aquatic plant restoration (APR) program to begin management activities throughout the state. This program will be administered through DNR's Section of Fisheries with offices located in Rochester, Lanesboro, Lake City and Waterville in Southeastern Minnesota. The goal of the APR program is to restore natural vegetation along currently degraded or vulnerable shorelines. These riparian areas, having both an aquatic and upland component, may be located next to streams, rivers, lakes, ponds or any type of wetland. Projects may be developed on either public lands or private property.

Funding priority will be given to those projects that best meet the following selection criteria:

1. Use of native species of plants.
2. A strong educational or research value.
3. Encourage natural recovery by removing plant disturbance factors.
4. Include plans for maintenance and monitoring activities.
5. Include cost or work sharing.

"Water Is Life"

Some examples of eligible projects include:

1. Preserve, restore or expand native aquatic plant communities.
2. Naturalize shoreline areas using plants as alternatives to more traditional means of shoreline stabilization, such as rip-rap.
3. Establish buffer strips.
4. Develop educational materials or sites.
5. Increase access to local, native stock for planting projects.

For more information, contact Bob Moody, DNR Fisheries in Lanesboro at 507-467-2442, or by e mail at lanesarea.fisheries@dnr.state.mn.us. You may also contact Mike Halverson, DNR Aquatic Plant Specialist in St. Paul at 651-772-7956.

River Friendly Farmer Program

By Donna Rasmussen

Fillmore County Water Plan Coordinator

The River Friendly Farmer Program is a statewide initiative recognizing farmers who are doing their part to protect and improve water quality in the rivers in Minnesota. A farmer can nominate himself or herself, or a neighbor can nominate a farmer that he or she thinks is implementing those practices that reduce the risks of polluting our rivers and streams. Through the River Friendly Farmer program, these farmers receive the public recognition they deserve for their stewardship.

Nominations are being encouraged in the South Branch Root River Watershed, as well as throughout the county. Application forms can be obtained from the SWCD office in Preston (765-3878), the Water Planning office (765-3305), or the Extension office (765-3896). In order to be approved for the award, the farmer must meet 10 criteria relating to soil conservation, nutrient management, manure management, and pesticide use for his/her operation. The farmer does not need to own land along a river or stream to qualify because everyone lives in a watershed so everyone's actions affect some river or stream. Farmers whose applications are approved will receive a certificate signed by the governor and a River Friendly Farmer sign for display at their farmstead. A local recognition event is also planned.

The River Friendly Farmer program is sponsored in Fillmore County by the Fillmore Soil and Water Conservation District (SWCD), U of MN Extension Service, USDA Natural Resources Conservation Service and Fillmore County Water Planning. Several Statewide agencies and organizations are also supporting the program, including Minnesota Pollution Control Agency, CENEX/Land O'Lakes, Minnesota Department of Agriculture, Pioneer Hi-Bred International, Inc., Minnesota Association of Soil and Water Conservation Districts, Minnesota Farm Bureau Federation, Minnesota Board of Water and Soil Resources, Minnesota Department of Natural Resources, Monsanto, Minnesota Agri-Growth Council and the McKnight Foundation.

Citizen Stream Monitoring Results

By Lee Ganske, MN Pollution Control Agency

From July into October of last year, volunteers monitored eight sites (see map), plus 4 sites not on the map, in the South Branch Root River watershed. The procedures they followed are part of a new statewide Citizen Stream Monitoring Program (CSMP) being coordinated by the Minnesota Pollution Control Agency. This program provides tools for citizens to track local stream conditions as part of a statewide network of volunteers. Volunteers were asked to make five measurements on at least a weekly basis during the summer.

1. Transparency is measured by pouring a water sample into a clear plastic "transparency tube." The tube is 60 cm long, so a reading of 60 cm represents the best measurable transparency.
2. A visual assessment is made of stream water color and how the volunteer perceives the quality of the water (e.g. would I like to swim or wade in the stream?)
3. The level of the water is determined using a weighted tape measure lowered from a bridge or culvert.
4. Precipitation is recorded daily using a rain gauge that is generally located at the volunteer's home. Following rainstorms significant enough to create runoff to streams and rivers, more frequent measurements of transparency, appearance and water level are beneficial.
5. Water temperature.

The bar graphs on the opposite page show monitoring results for precipitation, transparency and water temperature. For the five sites with precipitation data (bars on top of graphs), the effect of rainfall on transparency is evident. The runoff generated by rainfall transports soil and other materials that limit transparency. In addition to limiting transparency, this material may have other negative impacts, silting in of fish habitat, for example. For a number of the sites, the water seems to clear up fairly rapidly after rainfall. This does not seem to be the case for site 1, however. As such, the area upstream of site 1 may warrant closer study as the South Branch project proceeds. It is also worth noting that transparency was low both times measurements were made at site 7. This may be due to runoff from the adjacent quarry.

Water temperature decreases from east to west in the South Branch watershed (Sept. avg. temp at bottom of graphs). This is consistent with the changing character of the watershed from west to east: more water inputs from springs and spring-fed streams and greater shading as the land becomes more forested. Of course, this also explains the transition to water inhabited by trout.

While not included in the graphs, it is worth noting that the visual assessments recorded by volunteers ranged from "crystal-clear" and "good for recreation," to "muddy" and "poor recreation potential." As might be expected, the visual assessments lined up with the transparency measurements fairly well.

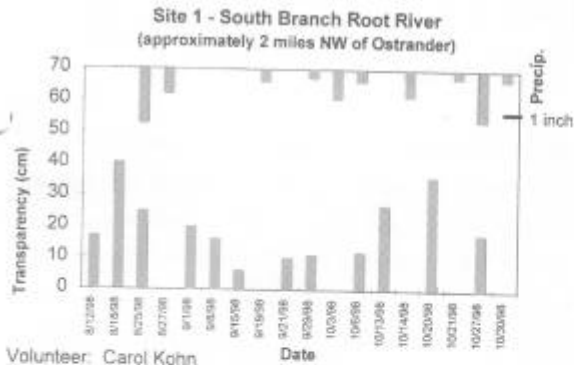
If you are interested in becoming a CSMP volunteer, please contact Donna Rasmussen at 765-3305. Monitoring will get underway again this spring!

South Branch Root River Watershed West of Forestville State Park

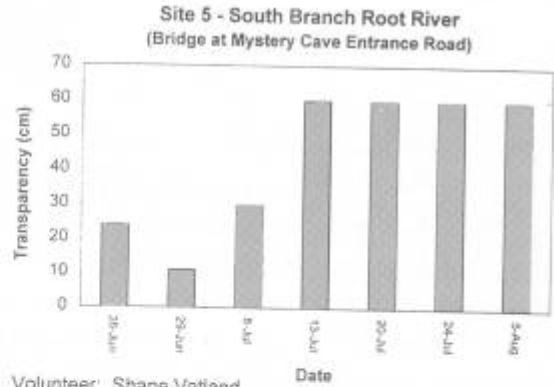


"Gravity never sleeps...
Water always seeps"

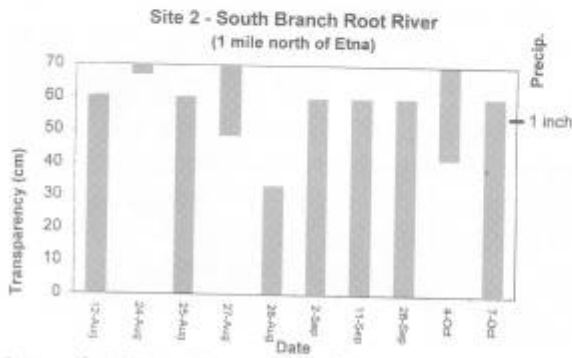
"Most of us drink water from
our local watershed"



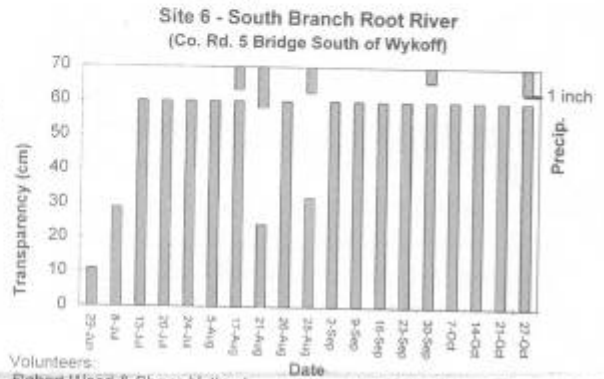
Volunteer: Carol Kohn
Average September Stream Temperature = 71 F



Volunteer: Shane Vatland

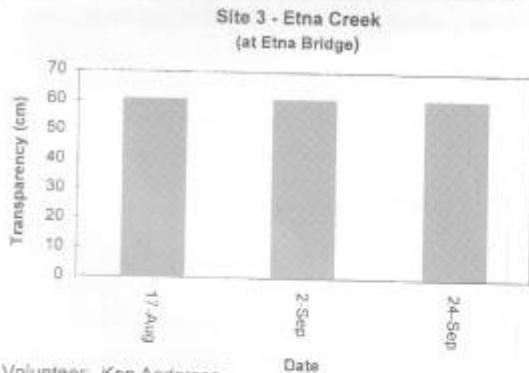


Average Sept. Stream Temp. = 66 F Volunteer: Diane Haefner

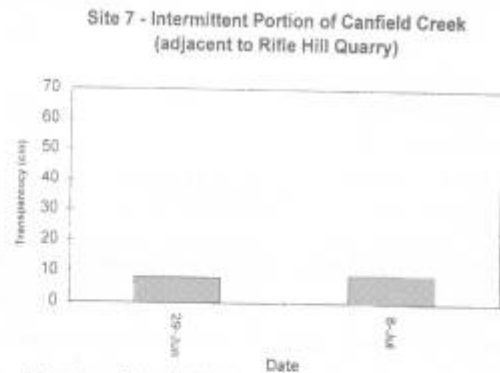


Volunteers: Robert Wood & Shane Vatland

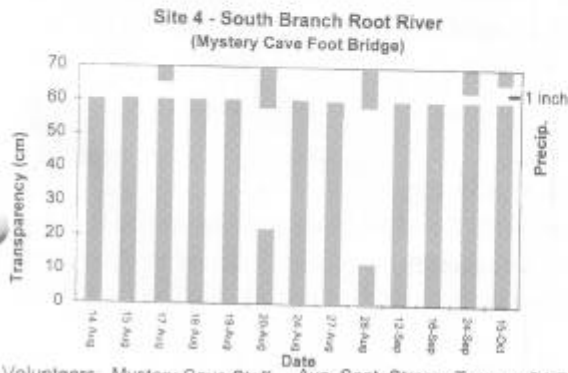
Avg. Sept. Stream Temp. = 61 F



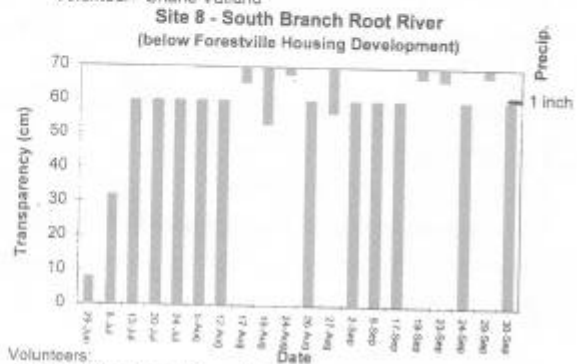
Volunteer: Ken Anderson



Volunteer: Shane Vatland



Volunteers: Mystery Cave Staff Avg. Sept. Stream Temp. = 64 F



Volunteers: Johann Vreeman and Shane Vatland

Avg. Sept. Stream Temp. = 63 F

Judicial Ditch # 1

By Rick Morrison

Mower County SWCD Engineering Technician

This Mower County drainage system was built in the early 1920s and since its construction has not been properly maintained. It is located in Clayton and Bennington Townships and covers 15.8 square miles of drainage. We are now in the process of redetermination of benefits for J.D. #1, which should be completed within a few weeks. The process of redetermination of benefits is used when the original benefits do not reflect current day land values or when areas not assessed into the system are presently receiving benefits or using the system. The viewers who are doing the redetermination have attempted to contact as many landowners as possible to discuss any pertinent information regarding the system. Before the results of the viewing go to the hearing process, there will be a day when the viewers will be available, probably in Grand Meadow, to answer any questions that landowners and renters might have. This day will be announced at a later date. Any repair or improvement work to be done on the open ditch will have to be authorized through different programs and processes because of the protected waters involved and the increased amount of drainage into the ditch since its construction. The Mower County Drainage Authority has given J.D. #1 a high priority in repairing the ditch but it will have to be taken a step at a time.

"An acre of corn gives off 4,000 gallons of
water per day in evaporation"

RIM Reserve

By Diane Hafner,

Citizen Member, South Branch Root River Watershed Committee

The Reinvest in Minnesota (RIM) Reserve Program strives to protect and improve water quality by encouraging landowners to retire environmentally sensitive land from agricultural production. The program reimburses land owners for enrolling their land in a permanent conservation easement and then provides assistance to restore the area to grass, trees or wetlands. There are many benefits to the program which include reduced soil erosion and sedimentation, enhanced fish and wildlife habitat, flood control and many more benefits.

Eligible lands include sensitive groundwater, riparian lands, wetland restoration areas, marginal agricultural cropland and other environmentally sensitive lands.

For more details contact your local Soil and Water Conservation District.

With the karst topography so prevalent in the South Branch of the Root River Watershed Project it is up to us as landowners to protect our surface and groundwater quality for our children and grandchildren.

Working together we can protect our irreplaceable natural resources.

A bit of history...

"A Biological Reconnaissance of the Root River Drainage Basin"

By Thaddeus Surber (published in 1922)

(Note: Surber was a biologist who did a comprehensive biological survey of the Root River from 1918 to 1920. He walked over 1,000 miles along the tributaries in the watershed to gather information about aquatic animal and plant life associated with the fisheries and fish propagation because there had been problems successfully stocking fish fry in the river. His notes reflect how settlement and development during the previous 50 years changed the landscape and the "far-reaching" effects of those changes.)

THE SOUTH BRANCH

Its Topographical Features

The valley of the South Branch extends from the prairie region southwest of Spring Valley in a northeasterly direction to a point just below Lanesboro, the area drained being some 200 square miles. The head of the valley does not differ from other areas, but after descending into Forestville township becomes the most remarkable one in the entire basin. Seventy-five years ago, or less, much of the land near the stream was under cultivation, particularly in the vicinity of Forestville, as this town was one of the first settlements in that section of Fillmore County, but Forestville has now disappeared, the land along the bottoms have been allowed in great measure to revert to their former condition of heavy forest and dense undergrowth from a point near Carimona westward for several miles beyond old Forestville, with a mean width of two miles or better, or from crest to crest of the valley: the large trees overhang the placid waters and produce conditions rarely excelled in any part of Minnesota for natural beauty and interest; in other words, almost absolute wilderness in the heart of a densely populated region of highly cultivated farms. In many places along there high cliffs fringe the river and produce many fantastic examples of rock sculpture one of the most notable examples a landmark of the region, "Chimney Rock," was wantonly destroyed a few years ago, but fortunately others remain at the present time. Passing to the eastward, the valley widens out at Carimona, and from there eastward the

river is bordered by cultivated lands, with the exception of about three miles of its course between the mouth of Camp Creek and Watson Creek, which is again heavily wooded, but in a narrowed bed. The surrounding uplands are under intensive cultivation with only here and there a grove of trees, and the bluffs below Carimona are free of rock-capped cliffs. The side valleys, Willow, Camp and Watson creeks, are wide and gently sloping, but North Branch and South Branch creeks are deep and narrow.

The River and Its Tributaries

With its intermittent branches in the vicinity of Ostrander, both in Mower and Fillmore counties, we can feel but little interest, as this portion dries up completely or simply consists of a series of disconnected pools during a large part of the year, at least as far east as section 21, Forestville Township. To be sure, Etna Creek has running water but soon loses itself in the rocky bed before reaching "dry-ford." Therefore, except during seasons of rainfall, the river really begins in some big springs in section 21, as stated above, and immediately becomes a rapidly flowing stream of cold, clear water some 25 feet in width, and flowing eastward through the narrow, heavily-wooded, rock-bound valley, soon receives the heavy affluents known as North Branch and South Branch creeks, which are large streams of subterranean origin and great purity. The North Branch is only about three miles in length; it makes its first appearance in the head of a deep, rocky canyon from a semi-circular cavern about eight feet in width and four and one half feet high in the base of a perpendicular cliff some 150 feet high, producing a creek 18 or 20 feet wide and over a foot deep, with a flow estimated at several thousand gallons per minute. The South Branch is very similar in character, but less flow. Just south of the village of Carimona a number of springs appear on the south bank of the stream, but below this no more are found till we reach Preston, where the waters of the big spring there are utilized for city purposes...

WATERSHED NEWS

Fillmore County WaterPlan Coordinator
912 Houston St. NW
Preston, MN 55965

BULK RATE
U.S. POSTAGE
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Spring Valley, MN 55975

Local Residents Serve On Steering Committee & Assist With Grant Process

As the South Branch Watershed Project has progressed, several local people have played a role in guiding that progress by serving on the steering committee.

Diane Hafner	Farmer & Fillmore SWCD Supervisor
Dan Terbeest	Farmer & Bloomfield Township Board
Sue Schrage	Fillmore Water Planning Advisory Committee
Johanna Vreeman	Farmer & Resident
Carol Kohn	Farmer & Resident

Technical Staff Assisting Watershed Project:

Donna Rasmussen	Fillmore County Water Plan Coordinator
Lee Ganske	MN Pollution Control Agency
Bev Nordby	Mower SWCD
Kevin Scheidecker	Fillmore SWCD
Jeff Green	Regional Groundwater Specialist, DNR
Bob Moody	Fisheries Biologist, DNR
Mark White	Forestville Park Manager



South Branch Root River
Watershed Project Area

This watershed project has been funded by the Clean Water Partnership grant, Fillmore County Water Planning Grant, and by the SWCD. As work begins on this project, there will be opportunities for other people to become involved in volunteer water quality monitoring efforts, education and informational meetings, surveying, etc. If you would like to know more about the watershed project, please contact Bev Nordby in Austin at (507)433-8268 or Donna Rasmussen in Preston at (507)765-3305.