

Turtle Creek Watershed District



Geneva Lake News

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Watersheds 101

A *watershed* is the total land area draining ultimately into a particular body of water, such as a river, stream, lake, or wetland.

John Wesley Powell, scientist/geographer, put it best when he said a watershed is "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common watercourse and where, as humans settled, simple logic demanded that they become part of a community."

The *quality* and *quantity* of our water resources reflects all the human and natural modifications in the watershed. The Geneva Lake watershed lies in a system of interconnected watersheds. Human and natural modifications made in one watershed may have impacts many miles downstream. We all

live upstream from someone. Understanding this "domino-effect" is critical to monitoring and managing our water resources.

Water comes to us by way of precipitation, in the form of rain or snow. Water soaks into the soil and is taken up by plants, along with miner-

We all live upstream from someone.

als and nutrients. Water not used by plants percolates through the soil as groundwater or enters rivers, lakes, streams, or wetlands.

Vegetation governs the effect precipitation has on the land. Vegetation protects the soil from erosion. It slows runoff, increases infiltration, and filters sediment and pollutants.

Without vegetative cover to

hold the soil in place, water strikes the land surface with greater energy. Erosion occurs, and runoff increases, carrying sediment and nutrients into water bodies.

Many strides have been made addressing certain types of water pollution, especially point sources like sewers. More needs to be done. Watershed protection and management for water quality can be achieved in a number of ways.

- Maintain native vegetation buffer strips along waters.
- Consider watershed-wide impacts of land use.
- Preserve wetland complexes—they are critical to good water quality.
- Preserve and restore native vegetation on shorelines and throughout the watershed.
- Preserve aquatic habitats.
- Manage stormwater runoff.

-Emily Hutchins, MN DNR

First Minnesota WREP sign-up underway

The Wetlands Reserve Enhancement Program (WREP) has come to southeast Minnesota as a result of the devastating September floods. The counties of Dodge, Faribault, Freeborn, Mower, and Steele received a Presidential Disaster Declaration. Of this area, the *Cedar* and *Shell Rock River Watersheds* will be the target areas for enrollment with a goal of enrolling 3,000

acres. Turtle Creek Watershed is located in the Cedar River Watershed.

The effort will not only focus on the Wetlands Reserve Program (WRP) goal of restoring migratory wildlife habitat but also on water quality and flood reduction through wetland restoration.

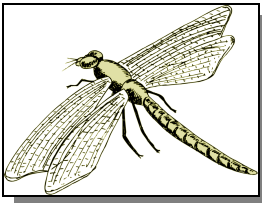
WREP will combine USDA-NRCS funding through WRP

with technical and financial resources from the State of Minnesota's Reinvest in Minnesota (RIM) Program to purchase easements. All easements are perpetual. The value of the easement is determined by an appraisal and shall not exceed the fair market value of the land.

This partnership will accelerate

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the ability to restore wetlands in critical areas in Minnesota. Wetlands provide fish and wildlife habitat, serve as a water quality filter, reduce flooding by storing floodwaters, recharge groundwater, and provide educational and recreational opportunities.

To be eligible, a landowner must have owned the land for at least 12 months prior to sign-up. Land must be physically capable of being restored and includes cropland, hayland, pastureland, and other flood-prone lands like buffers of lakes and ponds. Previously restored wetlands needing long-term protection are eligible. Land currently enrolled in CRP is eligible—it may be rolled over into WREP for long-term protection.



The Wetlands Reserve Enhancement Program may help to alleviate flooding.

Landowners retain control of access and ownership of the land—no public access is required. Landowners have the right to hunt, fish, trap, and pursue other appropriate uses.

Wetlands of all types aid in floodwater detention and are eligible for the program.

To apply for WREP, landowners should contact Chris Nelson

at the Freeborn Co. NRCS Office at (507) 373-5607 ext. 3. Landowners interested in enrolling this year should sign up by **1 March 2005**.

Don't miss this opportunity to reduce flooding in your watershed and provide habitat for wildlife, too!

Emily Hutchins, MN DNR

Efforts to reclaim Geneva Lake vs. rain

There is no doubt *rain* won the battle in the summer of 2004.

In August 2003, the Minnesota Department of Natural Resources (DNR) initiated efforts to restore aquatic habitat in Geneva Lake using siphons to lower water levels. The plan was to lower water levels 18 inches to 2 feet through the winter and one growing season.

The lake was successfully lowered to the objective elevations early in 2004. However, despite an early drought, 2004 turned out to be one of the wettest years on record for the Geneva area. This year's growing season rainfall, according to Minnesota's Climatology Office, ranked 99 on a scale of 0 to 100 (view statewide precipitation maps for the 2004 growing season at <http://climate.umn.edu/doc/weekmap.asp>). The siphons do not have the capacity to overcome such excessive rainfall. Lake levels returned to

normal in early June and remained at or above dam level the remainder of the year.

In 2004, dissolved oxygen levels dropped precipitously in February. As ice left the lake, a winter die-off of carp and other rough fish was evident. The lake was stocked with northern pike fry and adult yellow perch in early spring. As the growing season progressed, it became apparent enough rough fish had survived the winter to continue to cause water quality issues. Water clarity remained poor (secchi tube measurements of less than ½ foot). DNR Fisheries' test netting in early summer confirmed a substantial number of rough fish, including adult carp, remained in the lake.

There was some limited recovery of desirable aquatic plants. A fringe of new aquatic plants developed along the shoreline in some areas and sparse submergent plants were

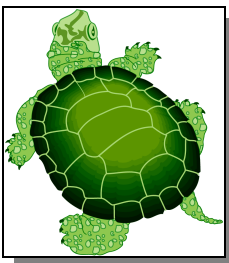
noted by early summer.

Presently, the DNR is working toward a more complete winterkill of carp. Siphons continue to draw water from the lake. Lake levels have dropped to slightly below dam level.

Plans are in place to use a technique called reverse aeration to help ensure winterkill. Reverse aeration is simply aeration timed to mix water in the lake when dissolved oxygen levels are near zero. This may help eliminate spots of higher dissolved oxygen where carp may be finding refuge. The DNR plans to restock the lake with northern pike and perch if winterkill is successful.

This coming spring, the DNR will reattempt a growing season drawdown of 18 inches to 2 feet. If this target level is

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achieved, the amount of lake bottom exposed will vary from several yards up to a few hundred yards in the shallower areas of the lake. If the growing season drawdown is successful, water levels will be allowed to

recover naturally.

Geneva Lake has lost many acres of aquatic plants that provide important habitat and water quality functions. The growing season phase of the

project is critical. Emergent aquatic plants are adapted to the natural cycles of drought, and most species require exposed lake bottom to grow from seed. Lower water in summer may also stimulate

growth of submergent plants.

For more information, contact Jeanine Vorland, at (507) 455-5841.

-Jeanine Vorland, MN DNR

Be ready when CSP comes to your watershed!

In 2004, the Blue Earth Watershed, which included part of southwest Freeborn County, was one of eighteen watersheds selected nationwide to participate in the first Conservation Security Program (CSP) signup. This year, five watersheds in Minnesota—including the Root River in this area—are eligible to apply for CSP. Officials expect every farmer and rancher nationwide will have the opportunity to apply for CSP within the next eight years.

This program is unique. Unlike other Farm Bill programs that help producers fix resource problems, CSP rewards those who *already* serve as good conservationists of their working agricultural land.

Enrollments are based on three Tiers. To be eligible for Tier I, producers must meet minimum criteria on *part* of their operation and have been doing so for *at least two years*. Some of the minimum criteria include crop rotation, controlling soil loss, utilizing buffers to protect water resources, testing soils and nu-

trient management, and record keeping. Tiers II and III require more rigorous levels of good stewardship on the *entire* operation.

Take note: The majority of producers not eligible for CSP in 2004 were applying nutrients above the University of Minnesota recommended rates for nitrogen, phosphorus, and potassium or lacked current soil test results.

Producers enrolled in CSP will receive stewardship payments and existing practice payments. The program also offers enhancement and new practice payments for adding conservation practices. Producers receive annual payments, which increase with Tier level. Contracts are 5-10 years. In the 2004 sign-up in the Blue Earth Watershed, CSP payments ranged from \$9,900 to \$19,600 per year.

CSP is available to all producers regardless of size of operation or crops produced. It is intended for working agricultural



lands including cropland, grassland, improved pasture, orchards, and rangeland.

Remember, CSP eligibility requires applicants to have implemented a high level of conservation. Producers should check into program requirements well in advance of sign-up to avoid being left out due to a simple program requirement that could be corrected easily (i.e. keeping good records). Will you be ready when CSP comes to your watershed?

Contact the Freeborn Co. NRCS Office at (507) 373-5607 ext. 3 for more information.

-Emily Hutchins, MN DNR

CSP rewards those who already serve as good conservationists of their working agricultural land.

CREP update

Presently, the second round of the Conservation Reserve Enhancement Program (CREP II) is pending for Minnesota. Minnesota's CREP II, which will cover 3 areas including the Southeast, was not approved for funding during the last legislative session; however, if all funding is approved, there may

be an announcement in early April.

The 15-year Continuous CRP is combined with the state Reinvest in Minnesota (RIM) program to provide for long-term or perpetual easements, depending on the practice being implemented.

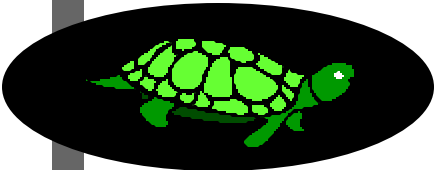
Producers receive annual rental payments, incentive payments, maintenance payments, 90% cost-share for restoration, and a one-time easement payment.

For more information, contact Bev Nordby at (507) 434-2603.

-Bev Nordby, Mower SWCD
-Emily Hutchins, MN DNR



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