As warm weather approaches, the birds return, the ground softens, and gardeners plan their new beds. In Dakota County over 300 gardeners are thinking about new gardens that will help improve water quality in our lakes, rivers, and streams. These gardeners are “planting for clean water” through the Blue Thumb© Program. Raingardens, native plantings, and beautiful shorelines are cropping up in many neighborhoods, adding a new purpose to gardening.

So how can gardens improve our lakes and streams? So many impervious surfaces in our communities - like streets, roofs, and parking lots - allow rain and snow melt to pick up pollutants and quickly run into storm drains. From there, stormwater runs into our lakes, streams and wetlands with little treatment. Planting for Clean Water is part of the solution to water pollution because it mimics nature and natural hydrology. Raingardens allow water to soak slowly into the ground, stabilized shorelines prevent erosion into lakes, and native gardens offer wildlife habitats with little maintenance and no watering. All in all, Blue Thumb gardens are a wonderful way for individual homeowners to do their part in cleaning the water resources we all enjoy and depend on.

And, Blue Thumb is starting to turn a lot of heads! Blue Thumb was named the 2008 Program of the Year by the Minnesota Association of Watershed Districts, was a finalist for the Minnesota Environmental Initiative Award, and received the 2008 Governor’s MnGREAT award—recognizing environmental achievement by government employees. To learn more about how you can plant beautiful gardens for cleaner water, visit www.bluethumb.org.

Did you know? The SWCD’s 2008 Annual Report and 2009 Annual Plan are posted at www.dakotaswcd.org for the public’s review.
News & Notes

A semi-annual publication of the Dakota County Soil and Water Conservation District
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The Dakota County SWCD Board of Supervisors meets on the first Thursday of every month at 5:30 p.m. Meeting times are subject to change. Changes of address or subscription inquiries, call 651-480-7777.

All programs and services of the U.S. Department of Agriculture, Natural Resources Conservation Service, and the Dakota County Soil and Water Conservation District are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Payments Available for Harvestable Filter Strips

The new Harvestable Filter Strip Program at the SWCD allows landowners to improve water quality and wildlife habitat by planting filter strips, while retaining the ability to harvest the vegetation within the filter strip. A filter strip is an area of vegetation between a cropped area and a waterbody that slows water flow and filters out sediment, nutrients, and chemicals so they don’t enter the waterbody.

Annual harvesting of the filter strip is allowed after August 1st to avoid disrupting the primary nesting season. The harvested vegetation can be used for livestock feed, bedding, or sold for biomass energy production. The SWCD can assist landowners in marketing their harvested vegetation to local biomass energy facilities.

The annual payment rate ranges between $100 and $200 per acre, depending on the contract length. The minimum filter strip width eligible for payment is 30 feet, and the maximum width eligible for payment is 120 feet. The SWCD also provides incentive payments up to $250/acre/yr for the establishment of non-harvestable filter strips. For more information please contact the SWCD at (651) 480-7777.

Keep Fighting Buckthorn!

Common and glossy buckthorn were introduced to Minnesota in the 1880’s as ornamental shrubs. Unfortunately, they often escape cultivation and can decimate habitats. Buckthorn is highly effective at outcompeting native species. Its growing season is 58 days longer than our native plants and its fruits contain chemicals that inhibit native vegetation growing nearby.

Buckthorn seeds can lay dormant in the soil for six years and it has no natural predators. It is also harmful to birds. When it dominates a habitat, birds eat the buckthorn berries. However, the fruit causes a severe, laxative reaction. Birds eat and quickly excrete the berries repeatedly until they become dehydrated and weak.

Despite spreading by birds, most of the seeds land under the parent tree. The ground under a mature buckthorn can have 75 seeds per sq. ft. resulting in densities of 15 to 20 seedlings per sq. ft. or half a million per acre. This prevents the generation of other trees, wildflowers, and understory species.

For more information visit the DNR’s website at: www.dnr.state.mn.us/invasives/. Additionally, the NRCS may have cost sharing funds available for buckthorn removal. Contact the NRCS office in Dakota County at (651) 463-8665.
**Rent a No Till Drill or Tree Planter**

A Truax no-till drill is available for rent to plant native prairie, pasture, or hay seed directly into unplowed crop fields or pastures. The drill has three separate seed boxes that allow consecutive planting of multiple seed types at varying rates. Rent is $15 per acre, plus a $100 setup fee, which includes delivery. The planting width of the drill is 10.5-feet, with 7-inches between each planting row. A tractor with at least 45 horsepower and two hydraulic rear-couplers is required to pull the drill.

The tree planter is an efficient tool when planting over 200 trees and planting in long, straight lines. Rent is $50 per day and includes delivery. The tree planter requires a tractor with at least 18 horsepower, and a 3-point hitch.

**Free Workshop on Prescribed Burns April 18, 2009**

The Minnesota Department of Natural Resources (DNR) and Carleton College's Cowling Arboretum are sponsoring a Prescribed Burn Workshop for private landowners. DNR staff experienced in prescribed burning will instruct landowners on the benefits and basic elements of prescribed fire. Participants will also learn about cost-share opportunities to finance prescribed burns, and will receive a DVD about prescribed burning. Weather permitting; students will conduct a small prescribed burn in the afternoon. Refreshments during breaks will be provided. Students may purchase lunch on campus or bring a lunch. Class size is limited to 25 students. Participants must be at least 18 years old and must wear appropriate clothing to participate in the prescribed burn, including leather boots and gloves and 100% cotton or wool clothing. No synthetic or blended fabrics should be worn.

WHEN: Sat., April 18, 2009; 9:00 a.m. to 4:00 p.m.
WHERE: Cowling Arboretum Office on the Carleton College campus, Northfield
TO REGISTER: Contact Emily Hutchins, DNR Private Lands Specialist; (507) 455-5841

**Local SWCDs Partner to Address Biomass Conservation and Green Energy**

The Dakota County SWCD, along with the SWCDs in Scott, Rice, and Carver counties, welcomed David Rickert as our new Biomass Conservation Technician in December 2008. David is actively working with landowners in the four-county area to promote programs that establish wildlife habitat, improve water quality, and include the potential for grass and woody biomass production that can be burned at local bio-energy facilities. The position is shared among the four counties over the next year. Much of the funding for the position comes from the Farm Bill Assistance Project through the Minnesota Board of Water and Soil Resources.

David is originally from Fond du Lac, Wisconsin and recently earned a degree in geography from the University of Wisconsin - Oshkosh. In college, he completed an internship with the Land and Water Conservation Department in Ladysmith, Wisconsin. In his free time David enjoys running, hunting, golf and woodworking.

**Tree Sale Pick Up Dates**

The SWCD Tree Sale is going strong! Thank you to all who ordered seedlings this year. Pre-ordered trees can be picked on Thursday, April 23 12:00 – 6:30 p.m. and Friday, April 24 10:00 a.m. to 3:00 p.m. at the Dakota County Fairgrounds in Farmington. There may be some seedlings available to purchase during these times as well.
What is “thermal trading?” Thermal trading allows people proposing land-use changes (such as new development) to purchase off-site stream-cooling practices, if they are less expensive than meeting the VRWJPO’s temperature standard with stormwater management practices on-site. With funding from the EPA’s Targeted Watersheds Grant program, a steering team that included Dakota and Scott Counties, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, and the University of Minnesota studied the way heat moves in the watershed and found many barriers to a successful thermal trading approach. It is not the best way to keep the Vermillion River trout streams cool, nor is it cost-effective at the majority of sites. But for a handful of proposals, it may be the only or best option to get the project done while protecting the cold-water trout fishery.

While a full-fledged water-quality thermal trading program is not feasible in the Watershed, a voluntary thermal trading option may help some developers or landowners meet temperature and volume requirements cost-effectively. With that distinction, the Vermillion River Watershed Joint Powers Board (VRWJPB) approved the findings and recommendations of the state and local partners steering the project to allow thermal trading as an option for developers. While not a ringing endorsement for thermal trading, the Board action makes the watershed one of the first in the nation to allow temperature trades.

One reassuring finding from the project: the current standard requiring developers to infiltrate most runoff on-site seems to protect streams from heat, too. That is not the case for properties developed before the VRWJPB adopted the runoff control volume standard in October 2006. So in addition to approving a voluntary thermal trading option, the Board approved additional recommendations, including one to implement cooling practices at strategic locations and another to reconsider design standards for rate-control ponds, which can contribute big heat pulses to the river when they overflow.

The Dakota County website (www.dakotacounty.us search EPA Targeted Watersheds Grant) has more information about the project including research reports, publications, an information sheet (4 pgs), and “Findings and Recommendations for Stabilizing Stream Temperature and Volume in the Vermillion River Watershed” (28 pgs).

For more information about the EPA Grant, contact Katherine Carlson, Dakota County Water Resources Department, at katherine.carlson@co.dakota.mn.us or (952) 891-7086.
Wanted: Vermillion Stewards

Vermillion Stewards is a group of volunteers who participate in a variety of hands-on stewardship and educational programs throughout the Vermillion River Watershed. This spring and summer the Stewards offer plenty of opportunities to get involved!

Mark your calendars now for the following events:

**Saturday, May 2, 9-11 a.m., Farmington Pond and Park Clean-Up** Help clean up Rambling River Park as part of a city-wide effort to beautify and care for this section of the watershed.

**Tuesday, May 5, 6-8 p.m., Prairie Wildflower Walk** Explore unique plant and animal life at the Hastings Sand Coulee Scientific and Natural Area (SNA) on an ecologist-guided walk through this rare dry sand prairie.

**Thursday, June 25, 6-8 p.m., Walk and Weed in the Sand Coulee SNA** Enjoy an ecologist-guided walk through this rare dry sand prairie, and help to remove invasive spotted knapweed that threatens native species.

Watch for the following upcoming events:

**Woodland Plant Tending at the Rosemount Wildlife Preserve**, June – Help care for native woodland plants installed last spring to increase diversity and wildlife habitat.

**Lakeshore and Prairie Restoration**, June – Help care for native lakeshore and prairie plantings at a Hastings city park.

**Trout Survey**, October – Assist DNR in collecting important fish data in the Vermillion River.

**Seed Collection at the Hastings Sand Coulee SNA**, October – Learn to identify and collect native prairie seed for future prairie restorations.

The Friends of the Mississippi River implement the Vermillion Stewards program to raise awareness about watershed protection and to improve the health of the Vermillion River. To sign up, or for more information on Vermillion Stewards events, go to www.fmr.org/participate/events or call Sue Rich at 651-222-2193, ext 14.

**Commissioner Wolf Appointed to Joint Powers Board**

Scott County Commissioner Tom Wolf replaced Commissioner Bob Vogel on the Vermillion River Watershed Joint Powers Board in January. Commissioner Wolf represents the Scott County district that is in the Watershed. In his spare time, he coaches football, baseball, basketball and other sports for different age groups. He also likes to garden, cook, play the piano, and spend time with his family. Commissioner Wolf lives with his wife Kellie and their four children in Savage.

**Vermillion Watershed Hosts Monitoring Forum**

The VRWJPO hosted the Metro Water Resources Monitoring Forum on February 18 and 19. Participants included staff with state agencies, watershed organizations, soil and water conservation districts and others that routinely monitor water quality in the metro area. Stormwater and stream monitoring experts from the Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, Metropolitan Council Environmental Services, and others presented information and engaged participants in discussions and coordination of efforts. According to Travis Thiel, VRWJPO watershed specialist and the event organizer, the forum promoted open communication among the organizations. Participants provided very positive feedback and VRWJPO staff were happy with the outcome of the event. “Through forums like these, we hope to be more consistent in our water resource activities and avoid duplication of efforts for the financial and scientific benefit of many organizations,” he said. Discussions and surveys generated new ideas, areas of shared interest, and additional needs for future forums.
In 2008, the VRWJPO worked cooperatively with the cities of Farmington and Lakeville to complete Capital Improvement Projects (CIP) to improve water quality.

Farmington’s project involved rehabilitating the North Creek tributary to the Vermillion River as part of a larger road reconstruction project. Rehabilitation included stabilizing the shoreline, installing native plants, and restoring a meander to a channel that had been artificially straightened in the past. The project goals were to enhance habitat, improve stormwater management, reduce erosion, and improve water quality. Total rehabilitation project cost was $322,493 of which the VRWJPO provided $100,000.

Lakeville’s project was the stabilization of a drainage channel to Lake Marion at 205th Street. This progressively eroding channel drains to the backwaters of Lake Marion and contributed sediment-laden water from runoff during rain storms. Stabilization included re-grading the channel banks, installing erosion control features, and establishing native plants. Reducing erosion and improving the water quality flowing into Lake Marion were this project’s goals. The original project proposal cost was $191,547 of which the VRWJPO will provide funding for half.

Other towns and townships in the watershed that are interested in a shared capital improvement project should contact Mark Zabel, Vermillion River Watershed Administrator (mark.zabel@co.dakota.mn.us or 952-891-7011).

Help Protect Waterways and Plan for the Future Along the Vermillion River

The Vermillion River Corridor is a diverse land-use corridor along the Vermillion River and its main tributaries. It is a patchwork of public and private land that stretches 67 river miles from eastern Scott County to eastern Dakota County. With a grant from the Legislative Citizen Commission on Minnesota Resources (LCCMR), Dakota and Scott Counties and the VRWJPO are leading a cooperative, public planning project. With input from residents, the project partners will develop a plan by early 2010 to protect and enhance this natural system green infrastructure.

Every community has public infrastructure such as roads, utilities, and sanitary sewers. Every community also has “green infrastructure:” its natural systems, such as rivers and watersheds. Green infrastructure is our natural life support system—a strategically planned and managed network of shoreland, woods, parks, greenways, and open spaces.

By reinforcing this green network, natural processes like stormwater infiltration or flood storage can occur, taking care of many problems that would otherwise require expensive man-made infrastructure. The Vermillion River Corridor Plan seeks to develop a collaborative and integrated plan that will prioritize water quality protection, seek broader wildlife habitat benefit, evaluate appropriate recreational opportunities, and help shape future growth.

Recently, business, agricultural, and residential landowners within the Corridor, plus recreational groups shared their thoughts and concerns at focus group meetings. Beginning this spring, a series of three workshops will offer opportunities for anyone interested in the River to add their voice to the plan.

Sign up to receive announcements and updates about this process by emailing water@co.dakota.mn.us. Visit www.dakotacounty.us and search Vermillion River Corridor or call Al Singer or Mary Jackson at 952-891-7000 for more information.
Among the many collaborative activities that occur within the Vermillion River Watershed, monitoring water quality and mapping landuse changes are high priorities for both the Vermillion River Watershed Joint Powers Organization (VRWJPO) and the SWCD.

**Monitoring**

While the VRWJPO provides the funding and support, SWCD staff perform the monitoring tasks and manage the data for the Vermillion River Monitoring Network. In 2008, water quality and quantity was monitored for the 10th straight year, providing important data for citizens, policy makers, and state agencies. Water quality concerns within the watershed continue to be high bacteria levels, warm water temperatures, and high levels of nitrates. High bacteria levels resulted in sections of the River being placed on the Federal List of Impaired Waters in 1998 and 2008. Since then, the VRWJPO, the SWCD and others have been working to better understand and alleviate the sources of the pollution. For example, Dakota County recently completed a project to inspect all septic systems within 300 feet of the Vermillion and major tributaries. Failing systems were upgraded by the homeowners with incentive payments from the County.

Nitrate contamination in groundwater continues to be a concern for residents living in eastern Dakota County. Nitrate samples from the Vermillion River and its tributaries in 2008 indicate that levels are indeed higher in the eastern portion of the watershed and highest in the South Branch subwatershed. Levels are above or near the average for minimally impacted streams in this ecoregion. Similar results were identified in previous years. Possible sources of nitrates include wastewater treatment plant effluent, urban and agricultural runoff, failing septic systems, and groundwater inputs. The section of the River from Goodwin Ave. to Hastings loses water to the groundwater and may be infiltrating deep enough to interact with area groundwater resources.

**Mapping**

Mapping landuse changes in the Vermillion River Watershed was completed by the SWCD in 2008. This was done by updating the Land Cover which characterizes impervious areas (artificial surfaces) by a percentage range over a two acre area. For example, a suburban park might be categorized with 0-10% impervious cover due to a mixture of parking areas and paved trails within a larger framework of lawn and natural areas.

As changes to the land in our communities occur over time, it is necessary to reevaluate data layers that reflect these conditions. For example, when the SWCD’s Land Cover Mapping data layer was completed in 2000, the Cities of Farmington and Lakeville had approximately 13,750 acres of land categorized with some degree of impervious cover. After updating the data layer with 2006 aerial photography, 16,560 acres of land are now categorized with some degree of impervious cover; an increase of 2,810 acres in six years.

**Leadership Training Program Takes Staff to Washington D.C.**

Laura Jester, Watershed Conservationist, is the latest Dakota Co. SWCD staff enrolled in a year-long leadership development training course sponsored by the Minnesota Association of Soil and Water Conservation Districts. The program is designed to build and enhance the leadership skills and capacity of local SWCDs to better serve the public, and address complex conservation issues. Participants traveled to Washington D.C. in March to learn from national leaders. There they met with Minnesota’s Senator and Representatives as well as staff from federal agencies like the United States Department of Agriculture (USDA), the Natural Resource Conservation Service, and the U.S. Forest Service. Members of the group also met with national organizations including the Natural Resources Defense Council, Am. Farm Bureau Federation, National Assoc. of Conservation Districts, and National Assoc. of Counties.
Some agricultural producers will be affected by recent changes to the Minnesota Wetland Conservation Act (WCA). In 2008, certain provisions in the WCA were changed to exclude previous exemptions to wetland alterations in agricultural areas.

Prior to 2008, landowners participating in the Federal U.S. Department of Agriculture’s Farm Bill Program were often exempt from the WCA law for small drainage or fill projects as these activities were regulated under the provisions of the Farm Bill. Now, all wetland alterations require a separate approval from your city or township under WCA, regardless of the Farm Bill determination. Both landowners and contractors can be liable if violations occur. Common projects that require approvals are wildlife pond excavations, drain tile repairs, new drain tile installations, ditch construction or maintenance, and access road construction.

If you plan to work in or near a wetland, you should contact your city or township to obtain an application or discuss your proposal. You can also contact the SWCD as our office provides technical assistance to cities and townships with regard to WCA implementation. On average, the typical time period to review an application is between 30 and 60 days, depending on the complexity and location of the project.