



## Dakota County Soil & Water Conservation District

# News & Notes

This newsletter also available at [www.dakotaswcd.org](http://www.dakotaswcd.org) Volume 24, Number 2 Fall, 2005

### David and Sarah Stein Chosen Conservation Cooperator of the Year

The Dakota County Soil and Water Conservation District has announced the selection of David and Sarah Stein as the District's Conservation Cooperator of the Year for 2005. The Steins were selected based on their significant



contributions towards the management and protection of our natural resources in Dakota County.

Conservation runs in the blood of the Stein family. David's father, Norbert, won the award in 1990. David and Sarah Stein and their children raise beef, corn, soybeans, and a few specialty crops in Douglas Township, just north of Cannon Falls. With assistance from the SWCD, the Steins installed a feedlot runoff collection structure to collect the manure that runs off of their feedlot. Instead of immediately draining into a nearby stream after a rainfall, the manure is collected in a pit until it is ready to be used as fertilizer on the Steins' crop fields. The Steins have also installed water and sedi-

ment control basins to prevent erosion within their crop fields. The basins hold back rainwater and slowly release it to prevent gullies from forming on the Steins' steep farmland.



The Steins will be eligible to compete for the Minnesota Conservation Cooperator of the Year Award. The award will be announced at the Minnesota Association of Soil and Water Conservation Districts annual convention held December 4-6 in Bloomington. A special luncheon will be held at the convention to honor the Steins and the other Conservation Cooperators of the Year from around the state.

The Dakota County Soil and Water Conservation District congratulates David and Sarah Stein for earning this award and commend them for their contributions towards protecting Dakota County's soil and water resources.

### Fair Winners Announced

Dakota county residents who visited us at our Fair booth had the opportunity to sign up for a raffle that included a variety of plants. The winners are:

- Lori Huberty, of Inver Grove Heights, won an assortment of eight native trees.
- Charlene Rotvold, Farmington, won the native aquatic plants.
- Jack Evans, Lakeville, won the native prairie plants.

### Tree Order Forms Coming Soon

*Watch your mailbox around the first of November for an order form for the annual SWCD Tree Sale.*

*If you purchased trees in the spring of 2005 you will receive an order form in the mail.*

*If you did not order from us last year and would like an order form, please call Dee at 651-480-7776 or e-mail [dee.parker@co.mn.us](mailto:dee.parker@co.mn.us).*

# News & Notes

published semiannually by  
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Water Conservation District**  
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<http://www.dakotaswcd.org>

## District Board

Joe Meyers, *Chair*  
Chris Nielsen, *Vice-Chair*  
Kevin Chamberlain, *Secretary/Treasurer*  
Marian Brown, *Public Relations and  
Information Officer*  
Michael Pliml, *Member*

## District Employees

Brian Watson,  
*District Manager*  
Laura Jester,  
*Watershed Conservationist*  
Jim Davidson,  
*Urban Conservationist*  
Todd Matzke,  
*Resource Conservationist*  
Brad Becker,  
*Resource Conservationist*  
David Holmen,  
*Resource Conservationist*  
Lana Rotty,  
*Administrative Assistant*  
Dee Parker,  
*Office Assistant*  
Mike Isensee,  
*Urban Conservation Technician*  
Justin Watkins,  
*Water Resources Technician*  
assisted by the **USDA Natural  
Resources Conservation Service**  
Michelle Wohlers,  
*District Conservationist*  
Matthew Schaar,  
*Soil Conservation Technician*

The Dakota SWCD Board of Supervisors meets on the first Thursday of every month. All meeting times subject to change. With 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.*

## Jim Davidson New Urban Conservationist

We welcome Jim Davidson, the new Urban Conservationist for the Dakota County Soil and Water Conservation District.

Jim came here from Scott County Community Development Division, where he served as water resource coordinator for the Natural Resources Department and the Scott Watershed Management Organization. He is a Certified Professional in Storm Water Quality and has a degree in civil engineering technology.

During his nineteen years of experience, he has worked in both the private and public sectors to address the many stormwater issues that come with population growth and development pressures. He is



looking forward to working with landowners, developers, cities, and townships to protect water quality and other natural resources in their areas by encouraging they take advantage of some the cost-share programs available for low impact stormwater designs and conservation practices. Feel free to call him at 651-480-7779 or visit [www.dakotaswcd.org](http://www.dakotaswcd.org) for more program information.

## Justin Watkins Water Resource Technician

Justin Watkins joined the SWCD in April of 2005. He came to us from the Cannon River Watershed Partnership where he was employed for nearly five years as a Watershed Analyst. Prior to working in the Cannon River Basin, Justin held a similar position for Itasca County SWCD in Grand Rapids. His responsibilities here at Dakota SWCD include surface water monitoring, field equipment deployment and maintenance, data analysis, and water quality modeling. Justin has degrees in mathematics and environmental studies from St. Olaf College in Northfield.



Justin lives in Northfield with his wife Emily and their son James. They enjoy travel, hiking and walking, gardening, reading, and spending time at home as a family. Justin is an avid fly fisherman who escapes now and then to explore the waters of southeast Minnesota... and beyond whenever possible.

## What is Pictometry?

Dakota County, in cooperation with most local cities, recently acquired oblique aerial photography from Pictometry. The photography has been made available to others such as school districts and the SWCD. Pictometry.com describes it: "Pictometry is a unique patented information system that combines aerial imaging with a state-of-the-art software system that has the ability to provide Visual Intelligence™ unlike any other system available. While Pictometry libraries contain orthogonal (straight down) images like ordinary aerial imaging, over eighty percent of Pictometry's images are oblique (taken from angles) so that features can be easily seen in their entirety."



Traditional  
Top Down View



Pictometry  
Facing South

Oblique digital imagery is different than traditional mapping products because it allows you to see the sides of features on the ground such as buildings, homes, wetlands, and woodlands. This means it will be easier to recognize these features, as well as measure their heights. For example, SWCD staff will now be able to better review natural resources at a particular property before they arrive to make a field review.

## Wetland/Watercourse Inventory

The SWCD will be working with the Vermillion and Cannon River Watersheds to complete a wetland and watercourse inventory and assessment. The initial work will be to inventory existing wetland and watercourses in these two watersheds. This will be done through aerial photography, maps, and fieldwork. Once these waterbodies are identified, an assessment tool will be used to look at general characteristics and their importance to the overall health of the watershed. The assessment will also look to identify sites that can realistically be restored to benefit each watershed. The project is being funded through the Vermillion River Watershed Joint Powers Organization and the Metropolitan Council. The final inventory and assessment will be used to evaluate watershed and community based policy that will provide the most benefit to water quality in the future.

## Stormwater Research Grant

The Dakota County Soil and Water Conservation District has received a \$125,000 grant award from the Water Environment Research Foundation (WERF) to conduct stormwater design research on Bioretention Performance and Design Criteria for Cold Climates. The research project will focus on the development of standards and specifications that are required by bioretention systems to be used successfully in the upper Midwest and in cold climates. The WERF is an accredited scientific research organization that provides grant funding through the Environmental Protection Agency.

The SWCD has partnered with the Washington Conservation District, Ramsey-Washington Watershed District, and University of Minnesota to conduct this research study. Research will be conducted at various County building facilities in both Dakota and Washington Counties to study the effectiveness of bioretention basins to treat meltwater during the recurring mid-winter freeze/thaw cycles. The project will also be designed to evaluate the infiltration, filtration, and pollutant uptake abilities of each design.

## Conservation Tour October 7

On Friday, October 7, the Dakota Soil & Water Conservation District will hold its annual conservation tour to review conservation practices installed over the past few years and practices currently underway.

The tour will start at 1:00 p.m. from the SWCD office located at 4100 220th Street West in Farmington (next to the Dakota County Fairgrounds). Bus transportation will be provided. We will return from the tour to the SWCD office by 4:30 p.m. Some of the stops may require "off road" travel so please dress appropriately. The tour will be held rain or shine.

If you are interested in attending this year's tour, please call the office at 651-480-7777.



## Watershed Updates

Check our web site for more information on each of the County's six watershed organizations: [www.dakotaswcd.org](http://www.dakotaswcd.org)

### North Cannon River Watershed:

The North Cannon River Watershed Management Organization recently awarded over \$18,000 in cost sharing funds to assist landowners and townships with installing best management practices (BMPs) for water quality improvements. Projects funded include converting a conventional planter to a no-till planter, tiling a field so that no-till planting could be used, fixing a severely eroding gully near Trout Brook, and stopping ditch erosion along two township roads. Next year, the WMO plans to spend about \$11,500 on cost sharing BMPs.

### Vermillion River Watershed:

The Vermillion River Watershed Joint Powers Board has completed its draft watershed management plan, which will be submitted to the Board of Water and Soil Resources in the coming months. Additionally, state agencies, local units of government, non-profit organizations, and others have been meeting regularly to

provide input on standards and criteria that will ultimately go along with the management plan.

The Etter Creek Watershed Sediment Control Project, funded through a grant from the Metropolitan Council, is heading into its final year. Landowners in the Etter Creek Watershed (mostly in Ravenna and Welch Townships) can receive up to 85% cost sharing toward practices that reduce the amount of water and sediment flowing into the creek.

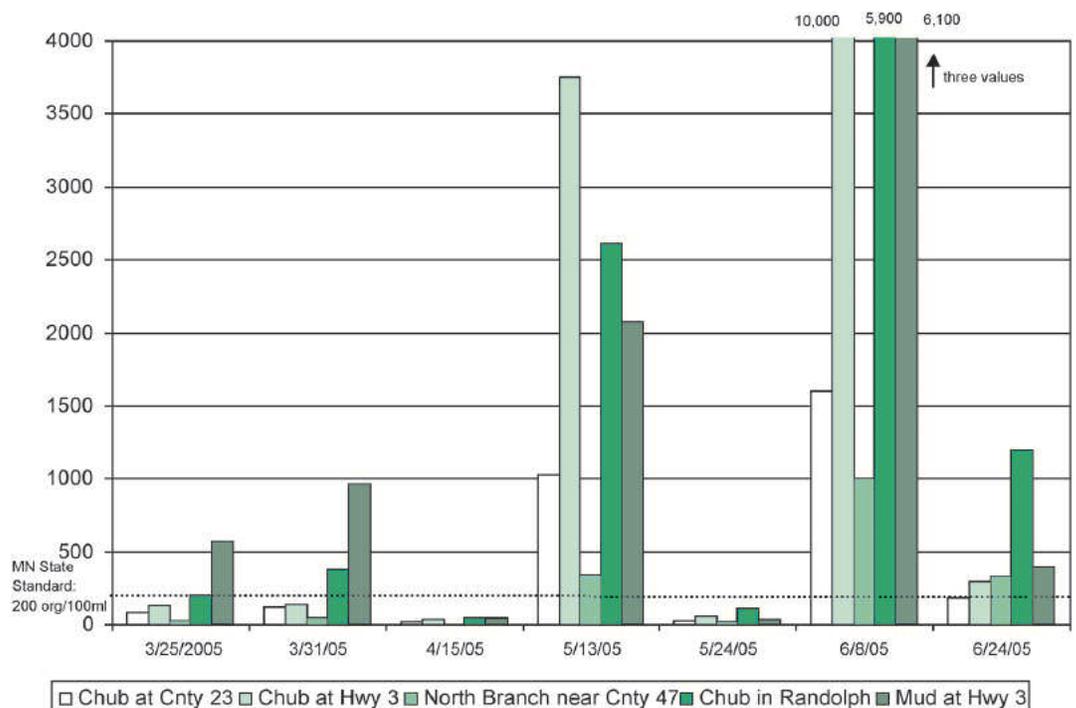
The Vermillion River Headwaters Groundwater Recharge Inventory and Protection Plan, funded through a grant from the Metropolitan Council, is in full swing. Twenty small piezometers (half-inch diameter pipes) were placed in rivers and streams in headwater areas of the watershed this spring. Water levels in the stream and in the piezometers are measured twice a month in order to determine whether surficial groundwater is entering or leaving the stream at those locations. Water and streambed temperatures and flow are also measured to indicate areas of groundwater recharge. The study will conclude next year with recommendations to local governments on how to protect critical recharge areas that maintain water levels and cool temperatures for viable trout streams in the watershed.

## Chub Creek Listed as Impaired

After several years of water quality monitoring performed by Dakota County SWCD and the North Cannon River WMO, Chub Creek was added to Minnesota's impaired waters list in 2004. The accumulated data confirm that Chub Creek — like many other waters in southeast Minnesota — does not meet certain water quality standards set by the State. In this case, the affected use is aquatic recreation (or surface water contact), and the pollutant of concern is fecal coliform bacteria — organisms that indicate the presence of fecal-borne pathogens in the water. In other words, Chub Creek is not safe for wading or swimming due to excessive amounts of animal or human waste in the water. Further monitoring in 2005 suggests that the problem persists; concentrations were especially high after

rain events. Common sources of fecal coliform bacteria and associated pathogens include livestock manure applied to fields, septic systems, wildlife, and feedlots.

**Bacteria in Chub Creek Watershed 2005**

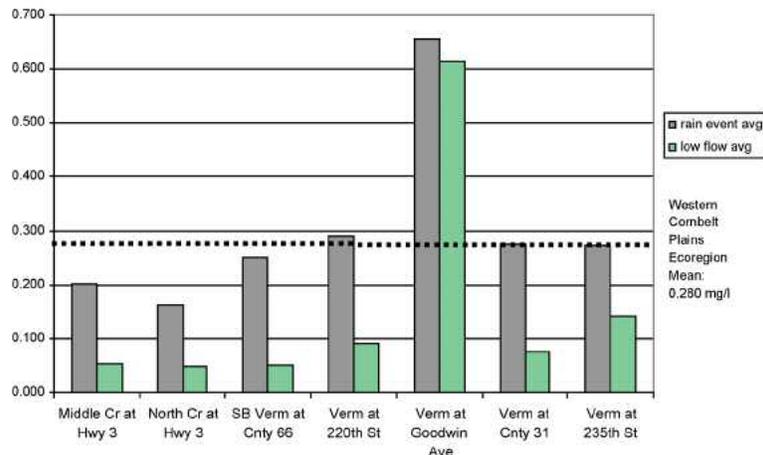


## Vermillion River Experiencing Phosphorus Runoff

In the Vermillion River, water quality monitoring in 2005 indicates that total phosphorus is generally below the mean for this ecoregion. However, after rains, concentrations increase significantly — indicating that stormwater runoff from urban and rural areas is a significant source. Total phosphorus (TP) is a measure of all phosphorus present in a given sample. Although abundant in land settings (10,000–100,000 parts per billion), phosphorus is more of a trace element in aquatic systems; typical concentrations in southeast Minnesota range from 0.050 to 0.300 parts per million. Thus, when waterbodies receive significant loads of phosphorus from external sources, the availability of this limiting nutrient increases, allowing

for excessive plant growth and in extreme cases intense algae blooms and scums.

**Vermillion River Watershed Phosphorus Averages 2005**  
(based on seven event samples  
and three low flow samples collected 3/25–7/14)



phosphorus load contributes to the eutrophication (greening) of waterbodies downstream including the Vermillion Bottoms, Lake Pepin, and beyond.



*The highest total phosphorus concentrations in 2005 were found at this site (SC804) on June 8*

## Stream Monitors Needed

Do you enjoy the outdoors? Live on or near a river or stream in Dakota County? If so, the Dakota County SWCD is seeking your help in monitoring our surface waters.

The SWCD, through a program of the Minnesota Pollution Control Agency, needs volunteers to monitor local streams once a week during the spring and summer months. Monitoring data gathered by volunteers yields valuable information about the current health of Minnesota's streams.

Monitoring is a simple and relatively quick process, completed weekly at a designated spot on the stream. At

the site, volunteers make note of the appearance and recreational suitability of the water and weather conditions. Then they measure the clarity of the water with a transparency tube. The whole process at the site takes about fifteen minutes. Volunteers also track daily rainfall at their homes using a rain gauge. The equipment is provided to volunteers free of charge.

If you would like to volunteer, or need more information about the program, please contact Justin Watkins, Dakota SWCD at 651-480-7783 or [justin.watkins@co.dakota.mn.us](mailto:justin.watkins@co.dakota.mn.us).

## U.S. Secretary of Agriculture Visits SWCD Office

On Friday, April 22, the SWCD received a surprise visit from Mike Johanns U.S. Secretary of Agriculture. Secretary Johanns was in Minnesota attending the Conservation Reserve Enhancement Program signing celebration in rural Owatonna with Governor Pawlenty.

Johanns had told State USDA officials that he wanted to visit a local USDA Office facility on his return trip to the airport. His surprise visit included a tour of the Dakota County Extension and Conservation Center building with staff from the Farm Service Agency, Natural Resources Conservation Service and SWCD.

Secretary Johanns was very complimentary of the office facility and pleased to visit with various staff members.



*Left to right: Tim Wilson, NRCS Assistant State Conservationist; Lana Rotty, Dakota SWCD, Mike Johanns; Michelle Wohlers, Dakota County NRCS; Tom Hockert, Dakota County Farm Service Agency; Brad Becker, Dakota SWCD*

**Dakota Soil & Water  
Conservation District**

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**An Inside Glance...**

- ❖ Conservation Cooperator of the Year
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