



Dakota County Soil & Water Conservation District

News & Notes

This newsletter also available at www.dakotacountyswcd.org Volume 22, Number 2 Fall, 2003

Conservation Tour on October 9

On October 9, the Dakota SWCD will hold its annual conservation tour. This tour will be held to review conservation practices installed over the last couple of years and practices currently being planned. The highlight of the tour will be a visit to Land O'Lakes Feeds in Inver Grove Heights, our 2003 Outstanding Conservationist {see article on page 2}.

The tour will start at 3:00 p.m. from the SWCD office located at 4100 220th Street West in Farmington (next to the Dakota County Fairgrounds). We will return from the tour and to the SWCD office by 6:00 p.m. If you are interested in attending this year's tour please RSVP to Lana or Dee by October 2 at 651-480-7777. We look forward to seeing you on October 9.

Due to budget reductions and in an effort to more quickly and cost-efficiently communicate information about Dakota County Soil and Water programs, we would again like to invite you to subscribe to *News & Notes* on the internet.

Please visit our site at www.dakotacountyswcd.org and send an e-mail to swcd@co.dakota.mn.us so we can set you up with this new service.

Caring for Drought Stressed Trees

Even after the rains of mid-September, it's been a dry summer. Grasses should bounce back quickly, but Dakota County trees are showing effects of drought. Prolonged dry periods accompanied by hot, dry winds create an imbalance in trees in which moisture is lost through transpiration faster than the roots can supply it to the leaves. This results in drying out and death of leaves and sometimes branch tips.

Trees can survive with one inch of water per week during years of normal precipitation. However, during times of drought, more than an inch is necessary. Watering trees is a science. Trees should be watered once or twice a week during the growing season. Long, deep watering periods are more effective than frequent, shallow watering periods. Light, frequent watering encourages shall rotting, which can lead to more severe drought damage. The best way to maintain soil moisture during the growing and dormant seasons is to use coarse wood chip mulch. Mulching can reduce environmental stress by providing trees with a stable root environment that is cooler and contains more moisture than the surrounding soil.

If your tree doesn't look too good, see how its root system is doing. Use a tile spade or shovel to check the root zone under the drip line of the tree, at the outer edge, and about twelve inches below the surface. If the soil is nearly dry, you're ready to water. If the soil is damp and crumbles, the water supply is sufficient. If the soil is wet, refrain from watering and check the soil moisture again in a few days. The soil should drain well between watering.

SWCD Web Address Changes

The Dakota County Soil and Water Conservation District recently changed its web address to

www.dakotacountyswcd.org.

Visit our site to stay up to date on current programs and projects and find links to other organizations.

News & Notes

published semianually by

The Dakota County Soil & Water Conservation District

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and Conservation Center

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Tara Carson,

Conservation Technician

assisted by the **USDA Natural
Resources Conservation Service**

John Crellin,

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.

Land O'Lakes Feeds Outstanding Conservationists

The Dakota County Soil and Water Conservation District has announced the selection of Land O'Lakes Feeds as the district's Outstanding Conservationist of the Year. Land O'Lakes will be eligible to compete for Minnesota's Outstanding Conservationist Award to be announced at the 2003 Minnesota Association of Soil and Water Conservation Districts annual meeting set for November 30-December 2 in Bloomington.

Land O'Lakes operates a feed processing plant in Inver Grove Heights and along the Mississippi River Bluff. Over the past several years, a large ravine had eroded with tons of sediment being transported to the Mississippi River. With cooperation and assistance from the SWCD, Metropolitan Council, Emmons and Oliver Resources, Great River Greening, DNR, and Association of Metropolitan SWCDs, a design plan was developed to reduce stormwater impacts and provide for native plantings.



Land O'Lakes constructed a pretreatment basin, filter swale, and infiltration basin designed to accommodate a hundred-year storm prior to discharging to the Mississippi River through the ravine. Excavated soils for the stormwater treatment area were used to stabilize the ravine



and native plantings are currently underway to vegetate the construction area.

The Land O'Lakes project stabilized a 400' x 80' x 40' ravine that was destroying one of the highest quality woodlands and river bluff areas in Dakota County. This site is adjacent to a DNR Scientific and Natural Area and a

potential route for a regional trail. As such, it will receive many visitors and create additional educational opportunities.

The Soil and Water Conservation District congratulates Land O'Lakes Feeds for earning this award and commend them for their contributions towards protecting Dakota County's soil and water resources.

Monica Broin Elected District III Supervisor of SWCD

Last January, the Dakota SWCD welcomed Monica Broin as the new District III representative of the Board of Supervisors. Monica and her husband reside in Hastings. She received an associate of science degree in nursing from the College of Saint Catherine in 2001. Monica brings a strong land stewardship ethic to the Dakota SWCD Board of Supervisors. Monica will represent Marshan, Nininger, Ravenna and Vermillion Townships, along with the City of Hastings. We welcome Monica and wish her well in her role as an SWCD Board Supervisor.

Rainwater Garden Installed at Thompson County Park

The SWCD assisted the Dakota County Parks Department with the installation of a rainwater garden at their Thompson County Park facility. A rainwater garden is a technique used to improve water quality by reducing the amount of stormwater runoff entering our lakes and streams.



Conservation design considerations in urban environments, often referred to as Low Impact Development or LID, look at decreasing overall runoff volumes by increasing runoff infiltration and maximizing evapotranspiration (evaporation and uptake of water by plants). Other LID techniques include the use of water-permeable materials for sidewalks and parking areas, reduction of sidewalk and street widths in low traffic areas, reductions in building setbacks from roads to reduce driveway lengths, routing water from rooftops and driveways to lawns, and eliminating conventional curbs and storm-drains on streets

The inclusion of wetlands, grassed swales, natural vegetation, detention ponds, bioretention, and infiltration devices are all effective in reducing runoff volumes

and increasing infiltration. Bioretention practices are designed to mimic naturally vegetated areas that control hydrology through infiltration and evapotranspiration.

Thompson County Park is located in West Saint Paul. Recent renovations to the facility including a new visitor center and improvements to the parking area. The rain-



water garden design incorporated soil corrections, an underdrain system, curb cuts to allow water to flow into the rainwater garden, and native plantings. The rainwater garden area is roughly three thousand square feet and obtains a water ponding depth of eight inches. Total storage is estimated at fifteen thousand gallons prior to overflow through an emergency outlet.

The project was made possible through contributions by the Dakota County Parks Department, Dakota County Transportation Department, grant funding through Metropolitan Council, and technical assistance from DNR and the Association of Metropolitan SWCDs.

Welcome Tara Carson

Tara Carson is the 2003 summer conservation technician at Dakota County SWCD. Tara is responsible for inspecting erosion control practices at urban construction sites, and collecting stormwater samples and maintaining the equipment at the water quality monitoring sites. Tara graduated in 1996 with a double major in Biology and Environmental Studies From Augsburg College. Last year, she completed her M.S. in the Water Resources Science program at the University of Minnesota. She looks forward to working with you.



Trees For Sale

Dakota County SWCD is now taking orders for the Spring 2004 Tree and Shrub Sale. The tree order form with descriptions and pictures can be found at our web site — www.dakotacountyswcd.org. Or you can call 651-480-7776 and request a copy by either mail or fax. Order forms are being mailed to all who purchased trees at the Spring 2003 Tree Sale.

The trees are sold as bareroot seedlings in bundles of 25 per variety. We offer a wide variety of shrubs, hardwood, and evergreens that are native to Minnesota.

Watershed Updates

Vermillion River Watershed Plan “Under Construction”

The Vermillion River Watershed Joint Powers Board (consisting of County Commissioners from Dakota and Scott Counties) and the watershed’s advisory Planning Commission (made up of nine watershed citizens) are working to draft a new watershed management plan for adoption in mid-2004. The plan will include objectives regarding surface and ground water, wetlands, floodplains, open space, recreation, water quantity, development, and education. Specific strategies to meet the goals and objectives are currently being developed and may include requirements for cities and townships in the watershed. For more information, visit the watershed’s web site at www.co.dakota.mn.us/planning/vermillionjpo/index.htm.

Vermillion River Bacteria Problem Front and Center

The Vermillion River Total Maximum Daily Load (TMDL) study for fecal coliform bacteria is wrapping up this fall with input from various technical advisors and watershed stakeholders. (See the Impaired Waters article for more information on TMDLs in general.) This technical panel will meet to determine the probable source of the bacteria contamination in each subwatershed. Possible sources include wastewater treatment plants, failing septic systems, pet waste, feedlots, livestock in the stream, land applied manure, and wildlife. Data collected includes bacteria levels throughout the watershed collected between 1999 and 2002 during rain events and periods of low flow, DNA analysis of some bacteria samples to show what type of animal the waste came from, land use data such as the amount of suburban land in a given subwatershed, and the location of feedlots and pastures. The panel will draft strategies for alleviating the pollution problem. These strategies will be considered for inclusion in the Vermillion River Watershed Plan. A final report on the TMDL study is due to the Pollution Control Agency by the end of the year.

North Cannon River Watershed Plan Close to Approval

The North Cannon River Watershed Management Organization (WMO) along with a technical and citizen advisory committee worked hard over the past year and a

half to develop a watershed plan. The document is almost through the review process and will soon be considered by the Minnesota Board of Water and Soil Resources (BWSR). If BWSR approves the plan, the WMO anticipates adopting the plan by the end of the year. The plan includes a proposed budget of \$16,000 for 2004, increasing to \$28,000 by 2008. The budget will help cover the cost of water monitoring and education, and will provide cost sharing dollars for BMP installation in the watershed. For more information contact Laura Jester, Dakota County SWCD at 651-480-7784 or laura.jester@co.dakota.mn.us.

Polluted Waters and the TMDL Challenge

In 2002, Minnesota reported almost eighteen hundred lakes and river segments as failing to meet water quality standards designed to protect aquatic life and the use and enjoyment of citizens. Eight of these bodies of water are in Dakota County, including lakes such as Crystal, Byllesby, Farquar, Marion, Long, Keller, and Lac Lavon as well as the Vermillion River in various segments.

About ten years ago the Minnesota Pollution Control Agency (PCA) began assessing Minnesota waters for impairments following decades-old provisions of the Federal Clean Water Act. “Impaired water” is a lake or stream segment that fails to meet water quality standards for pollutants such as nutrients, bacteria, solids, or toxins. These waters are then added to the Federal 303(d) list of impaired waters and a TMDL must be developed. A TMDL is the process of determining the extent and probable sources of the pollution. Then, each source is assigned a reduction target.

The tough part is actually meeting the pollution reduction targets. At least 96% of water pollution is due to non-point sources, or those that can’t be traced back to a single pipe. Actions of ordinary citizens contribute to non-point source pollution. TMDLs may be the process by which we determine “reduction scenarios” — but our actions will determine whether waterbodies actually get “de-listed.”

For more information on TMDLs and Minnesota’s impaired waters, visit the PCA website at <http://www.pca.state.mn.us/water/tmdl.html>.

Governor Pawlenty’s New Vision for Clean Water

At a policy forum on water resources in June, Minnesota Governor Tim Pawlenty outlined a new plan for achieving water quality goals. “As a governor who does not believe we can afford to let the state slip further down the slope of silt, sewage, and sludge, I’m here today to talk about a renewed statewide commitment to clean, quality water in the state of Minnesota,” Pawlenty said.

The emphasis of Pawlenty’s plan is to concentrate effort and money in a few key areas and to improve collaboration among state and local entities. The Vision includes four project areas around the state: the Red River Basin, the Brainerd Lakes Area, the Metro Area of the Mississippi River, and Southeast Minnesota. The “Southeast” region includes the Vermillion River and

Cannon River watersheds in Dakota County.

Priorities set forth in the plan include protecting Minnesota waters from present and future threats, ensuring safe sources of water for healthy communities and economies, monitoring water body conditions (allowing for effective community response), and restoring waters that have been impaired by commerce and development.

In order to meet these goals, the Governor will form a Clean Water Cabinet including the executive director of the Board of Water and Soil Resources and commissioners from the Pollution Control Agency, Department of Natural Resources, Department of Agriculture, and the Department of Health. The cabinet will work together to find solutions for the clean water challenges of each department.

Environmental Quality Incentive Program 2003

In mid-May 2003, the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentive Program (EQIP) funding levels were announced for Minnesota. A Local Work Group made up of agency representatives including the Farm Service Agency County Committee Members, Soil and Water Conservation District Board Members, the Minnesota Extension Service, Dakota County Personnel, and NRCS held a meeting on June 11 to prioritize natural resource concerns within the county and discuss the scoring system used to rank applicants for EQIP cost-share assistance. Five farmers representing the FSA and SWCD participated in the meeting.

Twenty-five EQIP applications were received, with twenty-four being approved. This encumbered approximately \$97,000 for EQIP 2003 conservation projects. This year's projects include prescribed grazing plans, upland wildlife plantings, animal composting, nutrient management, roof runoff/clean water diversions on feedlots, closure of abandoned waste facility, no-till/strip-tillage management, and a number of gully erosion related practices. These practices will be implemented in the next five years.

Applications for EQIP are taken at any time throughout the year, but plan as far in advance as you can to have someone from the SWCD/NRCS come out to investigate the resource concern and start the planning process with you. We will work with you to determine the appropriate conservation alternative for your land. We will also be able to discuss with you the availability and timing of various financial cost-share options that would best fit your situation.

Technical Service Providers and USDA

With the increase in conservation program funding under the 2002 Farm Bill comes a huge workload for the technical staff working with the Natural Resources Conservation Service (NRCS) and its primary partner, the Soil and Water Conservation Districts. In an effort to accomplish the anticipated conservation planning and implementation efforts that will come with the augmented federal conservation programs such as the Environmental Quality Incentive Program, Grassland Reserves Program, Wildlife Habitat Incentive Program, Conservation Reserve Program, and the Wetland Reserve Program, the 2002 Farm Bill authorizes the use of certified outside technical service providers (TSPs) to help NRCS implement conservation plans to fulfill a landowners' obligation to the federal conservation programs in which they participate.

The two main areas where TSPs will assist are in nutrient management and feedlot runoff control. With state rules requiring feedlot managers and nutrient applicators to become more accountable for their facility management and crop nutrient application management, we are seeing more livestock facility owners requesting technical and financial assistance to implement required or best management practices. Private agronomists or engineers may want to visit the web site at <http://techreg.usda.gov> to understand the certification requirements and get on the national register of certified TSPs. A TSP locator can be found at this web site listing TSPs, the services for which they are certified, and the areas where they provide service. TSPs are encouraged to stop by the local NRCS/SWCD/FSA Office and introduce themselves as well as find out more specific details about the TSP initiative. This is a new strategy that we hope will be beneficial to everyone.

The Dakota Habitat Alliance

Improving and Protecting Wildlife Habitat in Dakota County

For over three years, the Dakota Habitat Alliance (DHA) has been working to improve and protect wildlife habitat in Dakota County. The DHA is a cooperative partnership between the Dakota County SWCD, the Dakota Ringnecks Chapter of Pheasants Forever, the Dakota Great Swamp Chapter of the Minnesota Waterfowl Association, the Twin Cities Chapter of Trout Unlimited, the National Wild Turkey Federation, and the Southern Dakota County Sportsmen's Club.

These local wildlife organizations and the Dakota County SWCD share one common objective: to increase the quantity, quality, and diversity of wildlife within the county. DHA members have contributed to the purchase of a no-till native prairie drill and a tree planter that the SWCD rents to local landowners who are installing wildlife habitat. Many DHA volunteers have worked to

improve the Dakota County Fairground's Native Prairie Restoration Project, installing wood duck boxes and bluebird houses, planting trees, and clearing weeds and brush.

The DHA also works to increase awareness of the importance of protecting wildlife habitat. The Alliance sponsors a booth at the Dakota County Fair, in cooperation with the SWCD, to distribute information about conservation and habitat protection. The DHA also helps the SWCD to organize the annual Dakota County Outdoor Education Field Day, where over one thousand fifth grade students use the Fairground's Native Prairie Restoration Project area to learn about wildlife and conservation.

The Dakota County SWCD would like to thank the Dakota County Habitat Alliance for taking the lead in promoting the protection of wildlife habitat in Dakota County.



And the Winners Are...

Each year, the Dakota County Soil and Water Conservation District (SWCD) holds a poster and essay contest for fifth and sixth grade students within the County. The theme of this year's contest was "Our Soil... A Layer of Life," by which submitted posters and essays illustrated soil importance and conservation strategies. Each of the students that participated in the contest received a Red Splendor Crab tree seeding courtesy of Dakota Electric Association. Pheasants Forever, Dakota Ring Necks Chapter, donated binoculars and an annual membership to each of the placing participants. Thank you to all participants and congratulations to this year's winners!



Kayla Shape with her First Place Essay Division Certificate and binocular prize taken at the Farmington Akin Elementary School Awards Ceremony.

Poster Division

1st Place:Taylor Just
2nd Place: ..Alyssa Weinstein
3rd Place:Nick Snyder

Essay Division

1st Place:.....Kayla Shape
2nd Place:Tara Castellano
3rd Place:Logan Schneider

Winning Dakota County SWCD entries advanced to the Area IV contest where they were judged against the winning entries from Anoka, Benton, Carver, Hennepin, Ramsey, Scott, Sherburne, Stearns, Washington, and Wright counties. We are pleased to announce that two Farmington Students again received recognition and received monetary prizes. The area winners are:

Essay Division

1st Place:Kayla Shape
3rd Place: ...Logan Schneider

- ❖ An Inside Glance...
- ❖ Conservation Tour October 9
- ❖ Drought Stressed Trees
- ❖ Outstanding Conservatomists
- ❖ Tree Sale Reminder

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