



**MINNESOTA BOARD OF WATER AND SOIL RESOURCES  
BIENNIAL REPORT 2004-2005**



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## &gt; Letter from the Chair

Dear colleagues:

On behalf of the Minnesota Board of Water and Soil Resources, I am pleased to present the *2004-05 Biennial Report*. Throughout my tenure on the Board, I continue to be impressed with the many successful programs and projects associated with this agency. Because of its business and delivery model, BWSR—working with local units of government, state and federal agencies, and private conservation organizations—makes a big impact with conservation efforts on Minnesota’s private working lands.

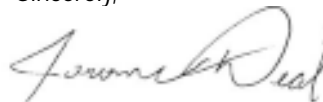
BWSR has seen many successes this biennium. This report highlights several of those important accomplishments, including:

- The next generation of the Conservation Reserve Enhancement Program (CREP II), which centers on three regions of the state;
- Continued avoidance of impact on the state’s wetlands because of the Wetland Conservation Act;
- Financial assistance to local governments through grants to help fund projects that put “conservation on the ground,” with pollution reduction outcomes;
- Streamlining of the County Local Water Management Program, and;
- Engineering assistance associated with wetland restoration projects, collaboration on conservation technical assistance work with Soil and Water Conservation Districts, and policy coordination and conservation practice standards development.

While the agency can be proud of these accomplishments, it continues to identify and plan for future opportunities. In the current biennium, BWSR will carry on its efforts to develop a memorandum of understanding with the U.S. Army Corps of Engineers that will increase efficiencies and improve environmental benefits of wetland regulatory programs. Another focus area will be an effort to help close the gap of funding for local technical assistance related to conservation programs. Funding for federal programs such as the Environmental Quality Incentives Program (EQIP) and the Wetlands Reserve Program (WRP) has increased, but support for technical staff at the local level has not, which means that landowner contracts and conservation practices are waiting to get implemented. Finally, BWSR will look at opportunities to increase program capacity to help conserve, restore, and protect Minnesota’s water resources, wetlands, and fish and wildlife habitat.

Accomplishments noted in this report could not have been possible without help from our partners. On behalf of BWSR, I want to express my deepest appreciation for their support. With committed partnerships like these, BWSR will continue to build on its achievements long into the future.

Sincerely,



Jerome Deal  
Chair, Minnesota Board of Water and Soil Resources



### >Core Beliefs

BWSR believes that water and soil management:

- *Is best implemented locally,* with local units of government working directly with landowners, resource management agencies, and citizens to provide a grass roots approach to resource protection efforts.
- *Is best implemented voluntarily,* with education and incentives influencing individuals to use wise management practices.
- *Is best accomplished comprehensively and collaboratively,* with local units of government working with each other, individuals, and resource agencies.

### >Executive Team

Ron Harnack, executive director

Doug Thomas, assistant director

Steve Woods, assistant director

Bill Eisele, administrative services director

MaryJo Anderson, executive assistant

### >About the Board of Water and Soil Resources

The Minnesota Board of Water and Soil Resources, working in partnership with local units of government, plays a key role in Governor Pawlenty's clean water vision, especially on the state's private working lands. BWSR believes that effective soil and water conservation on these lands is best accomplished through state-local-federal partnerships.

BWSR was formed in 1987 as a result of government reform. Three boards were condensed to one charged with directing financial resources to where they could do the most good for the state's water and soil conservation efforts. Although today BWSR is a small agency in terms of employees, its impact is felt far and wide in Minnesota. BWSR helps the state obtain its water and soil resources goals by empowering a broad network of local units of government that use local authorities and finances, in conjunction with state programs and priorities, to address local priorities.

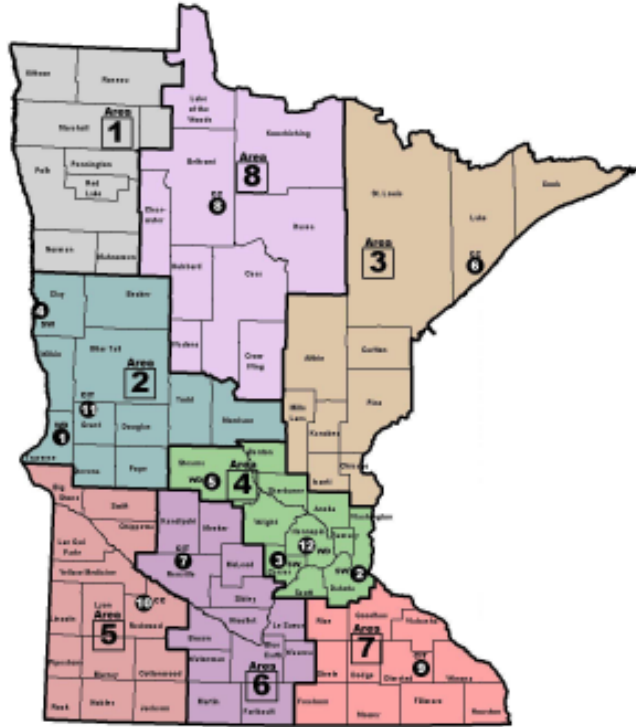
It's easy to find examples of Minnesota's commitment to conservation on private working lands across the state. That commitment must not waiver if we want to realize the Governor's clean water vision. Since 78 percent of the state's land is held in private ownership, the agency's work on private working lands is critical for the state's efforts to improve water quality, enhance fish and wildlife habitat, and protect wetlands.

BWSR's mission is to protect and enhance our irreplaceable soil and water resources through implementation of the state's soil and water conservation policy, comprehensive local water management, and the Wetland Conservation Act (WCA). BWSR provides financial, technical, and administrative assistance for local implementation of soil and water conservation programs to help get conservation projects on the ground, ensure implementation of local water management, and protect wetlands. BWSR serves as the administrative agency for the state's Soil and Water Conservation Districts, Watershed Districts, metropolitan water management organizations, county water management, and local units of government that implement WCA.

### >Core Functions

BWSR's mission is implemented through the following core functions:

- To function as the state soil conservation agency. (M.S. 103B.101)
- To direct private land soil and water conservation programs through the action of Soil and Water Conservation Districts, counties, cities, townships, Watershed Districts, and Watershed Management Organizations. (M.S. 103C, 103D, 103F)
- To link water resource planning with comprehensive land use planning. (M.S. 103B)
- To provide resolution of water policy conflicts and issues. (M.S. 103A.211, 103A.305, 103A.315, 103A.311)
- To implement the comprehensive local water management acts. (M.S. 103B.201, 103B.255, 103B.301)
- To provide the forum (through the board) for local issues, priorities, and opportunities to be incorporated into state public policy. (M.S. 103B.101)
- To administer the Wetland Conservation Act. (M.S. 103G)
- To coordinate with other state and federal programs to maximize environmental benefits.



**>Board Membership**

The BWSR board consists of 17 members representing local government entities (three from Soil and Water Conservation Districts, three from counties, and three from Watershed Districts or Watershed Management Organizations), state agencies (University of Minnesota Extension, Department of Natural Resources, Pollution Control Agency, Department of Health, and the Department of Agriculture), and citizens (three). This unique business model of diverse interests and organizations is well suited to address the complex water and soil management policies and issues for Minnesota. The board meets nine times a year. Board members are appointed by the governor to four-year terms.

**>Board Members**

1. Jerome Deal, Chair, Wheaton (Watershed District)
2. Louise Smallidge, Hastings (SWCD)
3. Robert Burandt, Waconia (SWCD)
4. Paul Krabbenhoft, Moorhead (SWCD)
5. Kay Cook, Richmond (Watershed District)
6. Clair Nelson, Two Harbors (County Commissioner)
7. Randy Kramer, Vice Chair, Bird Island (Citizen)
8. Quentin Fairbanks, Hines (County Commissioner)
9. Dana Allen, Eyota (Citizen)
10. Brian Kletscher, Vesta (County Commissioner)
11. Paul Brutlag, Wendell (Citizen)
12. LuAnn Tolliver, Minnetonka (Watershed District)

**>State Agency Members**

- Joe Martin, Department of Agriculture
- Dan Wilson, Department of Health
- Gene Merriam, Department of Natural Resources
- Jim Anderson, University of Minnesota
- Lisa Thorvig, Pollution Control Agency

**>BWSR Staff**

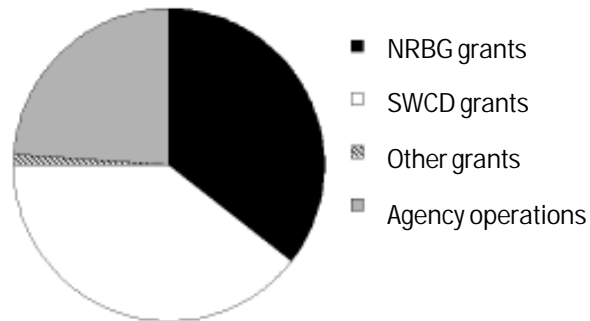
The agency has eight field offices, with locations in St. Paul, Rochester, Marshall, New Ulm, Brainerd, Bemidji, Fergus Falls, and Duluth. The St. Paul field office is co-located with the central office. This model means that agency staff members, who are experts on regional issues and concerns, have access to a network of colleagues across the state. Field staff members are the first points of contact for any local government working with BWSR.

**>BWSR Funding**

BWSR funding is primarily from the general fund. More than 76 percent of the appropriations from the general fund are passed through to local government to administer state policies and programs for which the agency is responsible. Outcomes are evaluated to ensure conservation policy objectives are met and that resources are expended to ensure program success.

**>2004-2005 Biennial Budget**

| <b>GRANTS</b>                               | <b>FY04</b>         | <b>FY05</b>         |
|---|---------------------|---------------------|
| <b><i>Natural Resources Block Grant</i></b> |                     |                     |
| Local Water Management Implementation       | \$1,500,000         | \$1,500,000         |
| Wetland Conservation Act Implementation     | \$2,172,000         | \$2,172,000         |
| Shoreland                                   | \$430,000           | \$430,000           |
| Feedlot Delegated Counties                  | \$1,948,000         | \$2,098,000         |
| Individual Sewage Treatment System          | \$130,500           | \$130,500           |
| <b><i>SWCDs</i></b>                         |                     |                     |
| Base Cost-Share                             | \$1,820,000         | \$1,820,000         |
| Feedlot Cost-Share                          | \$1,465,000         | \$1,465,000         |
| General Services                            | \$2,157,000         | \$2,157,000         |
| RIM Services                                | \$345,000           | \$345,000           |
| Nonpoint Engineering Assistance             | \$1,064,000         | \$1,064,000         |
| <b><i>Other</i></b>                         |                     |                     |
| Red River Basin Commission                  | \$100,000           | \$100,000           |
| Area II Minn. River Basin                   | \$105,000           | \$105,000           |
| <b>AGENCY OPERATIONS</b>                    | <b>\$4,146,000</b>  | <b>\$4,146,000</b>  |
| <b>TOTALS (General Fund)</b>                | <b>\$17,382,500</b> | <b>\$17,532,500</b> |



**OTHER  
LCMR**

|   |           |           |
|---|-----------|-----------|
| Local Water Management Challenge Grants | \$250,000 | \$250,000 |
| Soil Survey Updates                     | \$118,000 | \$118,000 |

**BONDING (2005 Session)**

|  |              |
|--|--------------|
| RIM Reserve and CREP II                | \$23,000,000 |
| Local Road Wetland Replacement Program | \$4,362,000  |
| Area II Minn. River Basin              | \$500,000    |

## &gt;SUCCESS STORIES AT A GLANCE

**Wetland banking cooperative established**[More wetlands news: Page 7](#)

A new wetland-banking cooperative at the Minnesota Board of Water and Soil Resources has created a centralized program to oversee replacement of wetlands lost due to road construction projects in Minnesota, thanks to an agreement reached between BWSR and the Minnesota Department of Transportation (Mn/DOT).

Both agencies had been running separate wetland banking programs prior to the agreement. BWSR handled wetlands lost through repair and rehabilitation of local roads, such as county and township road projects. Mn/DOT was responsible for wetland replacements involving their highway construction projects.

The agreement will be in effect for five years. According to the terms, BWSR will receive \$1 million a year in funding to run the combined program. In return for the funding, BWSR will develop mitigation banking sites for joint use, and both agencies can use existing banking sites.

Wetland regulations require that replacement of a wetland lost due to road construction be done prior to an impact. To stay ahead of the mitigation, wetlands are restored, and the wetland credits established at these sites are deposited into a bank from which the agencies draw credits.

**Report shows nitrogen reduction at CREP I wetland site**[More easements news: Page 9](#)

Seven Mile Creek, a designated trout stream in Nicollet County, has been the focus of efforts to reduce nitrates, phosphorus, and fecal coliform bacteria.

The Seven Mile Creek Watershed Project has been monitoring water quality at several wetland restorations, including a site that involves a Minnesota River Conservation Reserve Enhancement Program (CREP) easement and Conservation Reserve Program lands. One of the restorations has a portion of a county ditch tile and private tile “daylighted” – where tile line is angled to the surface to provide inflow of water into the wetland. A water level control structure on the other end of the 20 acre-wetland allows the water to flow back down in the tile line and out to Seven Mile Creek.



*A view of a restored wetland in Nicollet County.*

Testing of that water has shown that the wetland has made a difference on water quality. Monitoring data for 2005 for the site indicates an average nitrate-nitrogen concentration reduction of about 80 percent. Vegetation around the wetland and the settling process helps remove nitrogen from the water that comes into the wetland.

The project has also been supported by funding from the McKnight Foundation and the Clean Water Partnership Program.

**Cost-share program helps county with conservation practices**[More grants news: Page 11](#)

Stearns County is the largest dairy-producing county in Minnesota. The county led the state in the value of cash receipts in 2002 and is a leading dairy county in the nation.

Stearns County Soil and Water Conservation District (SWCD), the USDA Natural Resources Conservation Service (NRCS), and BWSR have been helping farmers apply conservation improvements to their feedlots using state and federal cost-share programs. Tom Meyer, who farms north of Spring Hill, Minn., is one such example.

Meyer runs a dairy operation on the family's century-old farm, which is visible from State Highway 4. A wastewater and feedlot runoff system was designed and constructed for the farm. Stearns NRCS and SWCD offices helped Meyer with the project.

Funding from the State Cost-Share Grant Program and the federal Environmental Quality Incentives Program (EQIP) was used to help offset the landowner's costs to construct the project.

His previous system was too small for his operation, and concrete walls on the system had started to crack. Meyer had a concern that the old system could present a water quality problem if the situation got worse.

### County water management: Focus on Olmsted County

More water management news: Page 12

Olmsted County's water plan update was one of the 17 county water plans approved by the BWSR board in the past two years.

The county's original local water management plan was adopted in 1990, with an update in 1998. The latest update lays out specific implementation priorities for the period 2005 to 2010.

Following the new statewide framework for county water plan updates, the county identified four priority concerns, which included:



- Continue current water management services;
- Construct and operate the Chester Community Sewer;
- Implement the South Zumbro Storm Water and Capital Improvement Plan; and
- Support watershed management organizations.

One of the unique components of the update relates to the first priority concern and the county's work in groundwater protection. The region's karst geology provides abundant groundwater, but also increases its vulnerability to contamination, according to the county's report. The county wants to ensure protection of its groundwater through the implementation of agricultural best management practices. In addition, well sealing programs and efforts to prevent contamination from existing and new wells are critical to sustaining groundwater quality. The county also has targeted the Decorah Edge for protection because of its role in helping recharge groundwater as groundwater flows from the upper to the lower aquifer.

Another unique component is the county's plan to integrate stormwater management and transportation planning. The basic concept is to use riparian overflow areas for temporary water storage in the watershed's upper reaches. Without critical storage areas, a cascading effect has taken place in the watershed; stormwater flows have increased and stream corridors got progressively degraded, resulting in undue stress on the transportation infrastructure and a need for larger bridges downstream. According to the county's report, the integrated approach would reduce runoff flow volumes and velocities, improve water quality, lower transportation and maintenance costs, improve road safety, and provide cost savings to pay for upstream stormwater management systems.



*A view of a cost-share project in Stearns County.*



## SPECIAL PROJECTS

### Clean Water Initiative

In June of 2003, Governor Pawlenty announced a new initiative to help clean up Minnesota's waters and ensure the state's water legacy would pass intact to future generations.

One aspect of the initiative was the formation of a Clean Water Cabinet. Ron Harnack, BWSR executive director, was named to the cabinet. He serves with the commissioners from the Pollution Control Agency, Department of Natural Resources, Department of Agriculture, and the Department of Health, and the chair of the Metropolitan Council. The cabinet fosters common solutions to the unique clean water challenges each agency faces.

Another component was the selection of several pilot projects, which were chosen to represent some of the state's most unique and important water challenges. BWSR is the lead agency contact for two projects proposed in the Red River Valley, which has problems with flood damage and control.

The first project is located in the Grand Marais Creek subwatershed. The project plan includes construction of two impoundments in the eastern edge of the subwatershed. The plan provides local participation through ditch improvements to County Ditch 2 and County Ditch 66. Additionally, 1,000 acres of wetlands and prairies would be restored. The plan also calls for the installation of 21 miles of buffer strips and implementation of best management practices.

The second proposed project is located in the Buffalo-Red River Watershed District. The project features the creation of a 1,320-acre wetland by restoring the Manston Slough in Wilkin County. Besides the wetland restoration, plans call for construction of a temporary flood-storage pool.



Other project components include *Plans for the Grand Marais Creek project include construction of two impoundments.* installation of buffer strips, restoration of wetlands, and a channel restoration in the upper watershed.

### Leveraging the Farm Bill

The 2002 farm bill authorized unprecedented levels of funding for conservation programs, including significantly more for conservation on working lands. This provided Minnesota with an opportunity to play a key role in efforts to leverage and target farm bill conservation program funds to water quality restoration and protection, especially on agricultural working lands.

BWSR was part of an interagency work group that identified six key strategies with action steps ranging from state-funded initiatives that would bring in additional farm bill funding for water quality to efforts that would steer a higher percentage of fixed farm bill allocations toward water quality. In these times of limited state resources, efforts like these can help ensure the state can fully leverage available federal funds toward conservation efforts and at the same time help support our own efforts to target restoration of impaired waters.

Central to how this might be accomplished, the group identified the following:

- Facilitate increased enrollment in programs whose acreage and funding are unconstrained by a fixed state allocation and generate increased demand for other programs whose funding is constrained by a fixed state allocation;

- Build local capacity by increasing and refining the state's support of the existing infrastructure that delivers financial and technical assistance to landowners who enroll in farm bill conservation programs; and
- Focus leveraging efforts on the "right practices in the right places" to restore impaired waters.

### **Red River Watershed Projects**

The Red River Valley continues to be a focus of attention for BWSR staff. Since signing of the Red River Basin Flood Damage Reduction Work Group Agreement in 1998, a collaborative approach has been used for planning and implementing flood damage reduction and natural resources protection and enhancement projects in the valley.

BWSR is represented on the work group that examines potential projects, as well as the Technical and Scientific Advisory Committee. BWSR board conservationists advise project teams in the valley and work with watershed districts to ensure that watershed management planning moves forward.

Following is a report on some project developments in the valley that took place over the biennium:

#### **Bois de Sioux Watershed District:**

Construction began on the North Ottawa impoundment project in the biennium. The project is located in North Ottawa Township in Grant County, southeast of Breckenridge. Along with flood control benefits, the project will provide wildlife habitat and recreational opportunities, control sediment, and improve water quality.

#### **Buffalo River Red River Watershed District:**

The Whisky Creek tributaries project construction was completed in the biennium. Project components included channel restoration, buffer strips, an impoundment site, two farmstead ring dikes, control of interbasin inflow from Stony Creek, and wetland restoration.

Planning was underway for the Riverton Township off-channel storage impoundment. The Watershed District proposes the construction of an impoundment along Clay County Ditch 12. Project benefits include flood damage reduction, erosion control, habitat enhancement, and recreation. A second project being planned is the Oakport Flood Mitigation project. A dike is being proposed to mitigate future flood damages to the town of Oakport.

#### **Middle River Snake River Watershed District:**

Planning continued for the Agassiz Valley water management project. The project, which will cover 2,560 acres in Marshall and Polk counties, will provide flood flow reduction and natural resource benefits. Other project benefits include wetland/prairie restoration and creation; wetland research, education, and recreation; and low-flow augmentation.

#### **Roseau River Watershed District:**

The West Interceptor project is a flood control and native prairie/wetland restoration project. Construction began in fall 2004. Components include construction of a 7.5-mile channel from south of U.S. Highway 89/Minnesota Highway 11 to an outlet in the Roseau River, about 5 miles northwest of Roseau. Benefits include flood relief for the city of Roseau and natural resource enhancement for the area.

Planning continued for the Hay Creek project. The project calls for a channel restoration, a floodway enclosed by setback levees, and a 1,100-acre off-channel wetland restoration-retention site. Another proposed project in the watershed includes construction of outlets on the Roseau Wildlife Management Area.

#### **Two Rivers Watershed District:**

Planning continued for the Ross #7 project, a flood storage site near Badger. Benefits include flood damage reduction, water quality enhancement, habitat enhancement, and recreation.

## &gt;AGENCY PROGRAMS

**WETLANDS**

>**Wetland Conservation Act:** Minnesota's protection of its wetland resources is largely accomplished by 350 units of local government that implement the state's Wetland Conservation Act (WCA). The purpose of WCA is to achieve a no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands. As part of its overall responsibilities to implement WCA statewide, BWSR provides a range of services—through technical evaluation, financial assistance with grants, training, dispute resolution, and coordination with the U.S. Army Corps of Engineers and the U.S. Department of Agriculture—to ensure that decisions about wetland protection are made with local input, sound science, and due process.

Data reported by local units of government, collected from 2001 to 2003, support an ongoing trend of WCA serving as a deterrent to projects impacting wetlands. For these three years, more than 30 percent of initial landowner inquiries about draining or filling wetlands resulted in project revision to avoid wetlands. The awareness of WCA regulations causes landowners to consider avoiding wetlands even before they finish planning a project.

**A**s part of the reporting provisions of the Natural Resources Block Grant program, local governments provide BWSR with data that allows the agency to track WCA's effects on wetland gains and losses in the state. Local governments provide data on activities associated with implementation of WCA, including total acres of wetlands avoided, minimized, or replaced. More information on this wetland data can be found in the 2001-2003 Minnesota Wetland Report (see the BWSR website: [www.bwsr.state.mn.us](http://www.bwsr.state.mn.us) and click on "Wetlands" and "Publications/Reports").

**Conservation Innovation Grant awarded**

In 2004, BWSR received a \$93,750 grant from the U.S. Department of Agriculture Natural Resources Conservation Service. The grant will help fund a project that will demonstrate ongoing research and development to manage invasive, non-native species in degraded and restored wetlands.

BWSR's project will establish demonstration sites that will integrate several new and established management practices to control invasive species in restored wetlands and prairie uplands. Invasive, non-native vegetation has been identified as a limiting factor for biodiversity and wildlife habitat quality in degraded and restored wetlands and uplands. As part of the project, standards will be recommended for a new conservation practice for invasive species management for wetland restorations.

Project collaborators include NRCS-St. Paul, Minnesota Department of Agriculture, Minnesota Department of Natural Resources, U.S. Fish and Wildlife Service, Ducks Unlimited, the Minnesota Department of Transportation, the University of Minnesota, the U.S. Army Corps of Engineers, Minnesota Waterfowl Association, Pheasants Forever, and Soil and Water Conservation Districts.

**Plant identification course offered**

Natural resources professionals in northeastern Minnesota participated in a unique course meant to help them be more familiar with plants normally found in the coastal zone. Participants in the course, coordinated by BWSR's Duluth office, had access to a series of web



*BWSR develops and offers a variety of wetland-related training programs for local governments.*

pages to help them identify at least 100 crucial plants. That skill is used when wetland professionals need to make determinations on whether or not an area is considered a wetland. One has to know the dominant plants at a site in order to determine if there is hydric vegetation, one of three requirements for wetlands. The project was funded in part by a grant provided under the Coastal Zone Management Act, by the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management, in conjunction with Minnesota's Lake Superior Coastal Program.

### **Wetland training**

As part of its administrative duties related to WCA, BWSR develops and offers a variety of wetland training across the state to local government staff, state agencies, and others. Following is a summary of those training sessions (attendee totals follow):

- Summer 2003: Basic Delineation of Wetlands in Minnesota (30)
- Summer 2003: Coastal Plant Identification Course (60)
- Fall 2003: Wetland Rules Training (425)
- Spring and Summer 2004: WCA 101 (100)
- Summer 2004: Basic Delineation of Wetlands in Minnesota (30)
- Summer 2004: Lake Superior Basin Hydric Soils Training (60)
- Summer 2003, Summer 2004: MnRAM Version 3.0 (260)
- Summer 2004: Wetland Vegetation Training (40)
- Winter 2003 and 2004: Wetland Sequencing (90)

BWSR continues its collaboration with the University of Minnesota Department of Soil, Water, and Climate on a voluntary wetland delineator certification program. The effort seeks to encourage professionals involved with wetland delineations to become certified in order to improve the reputability of their work and enhance consumer confidence. Participants are required to meet a specific score on a comprehensive exam. An exam was first offered in summer 2005. The certification program establishes standards for education, experience, and performance for completing and reviewing delineations. The program is open to persons who have successfully completed a wetland delineation training course and have had at least three years of experience working in the field.



*The Vesledahl Project will generate wetland banking credits.*

### **Public road wetland mitigation program**

As part of legislative amendments to WCA, the state of Minnesota, through BWSR, assumed responsibility from local governments for replacing wetlands lost through repair and rehabilitation of existing roads throughout the state. For the reporting period 2001 to 2003, there were 452 projects, 468 impacted wetland acres, 25 acres of replacement provided by road authorities, and 656 acres of replacement wetland developed by BWSR.

Nearly 1,100 acres of wetland credit have been established at 39 individual sites around the state through this program. At the end of 2004, BWSR began debiting from these accounts to replace wetland losses that public road authorities first started reporting to BWSR in 1996. More than 522 acres have been debited from the system.

Approximately 14 additional bank sites are under various stages of development, representing around 1,100 acres of additional credits to be deposited in accounts for future debiting against losses. It is anticipated that 400 of these credits will be certified this summer from phase two and three of the Vesledahl Project in Polk County and a University of Minnesota restoration site in St. Louis County. Additionally, BWSR and DNR have optioned a site in Chisago County that is expected to yield an additional 240 acres of wetland credit that will help with northern metro projects. When all of these sites are fully restored, a total of 1,500 acres of additional wetland credit will be available for mitigating wetland credits.

### Wetland banking fees

The 2003 Minnesota Legislature passed legislation requiring BWSR to charge fees for wetland bank activities. The costs associated with managing the wetland bank were initially covered as part of the general Wetland Conservation Act program responsibilities, but the growth of the bank has outgrown the capacity to support it. The fees are meant to pass wetland bank administrative costs on to the users. Fee collection began Jan. 1, 2004.

### Mitigation memorandum of understanding

An Interagency Wetland Group has been developing wetland mitigation guidelines to reconcile the sometimes conflicting or inconsistent requirements of the various state and federal wetland regulatory programs. The main goal of the guidelines is to identify for permit applicants the “bottom line” mitigation requirements that, if followed, will help ensure that mitigation proposals are approved in a timely manner by all applicable regulatory agencies. The underlying interagency agreements are proposed to be formalized in a memorandum of understanding similar to the MOU on regulatory simplification and banking signed in 1994. While the MOU cannot obligate the agencies to administer their programs in a manner that conflicts with their respective statutes, rules, and regulations, it can serve as a vehicle to facilitate interagency cooperation in reviewing permit applications, leading to more efficient use of agency staff, more timely processing for permit applicants, and greater effectiveness in achieving program goals for wetland protection.

## CONSERVATION EASEMENTS

### Key areas:

>**Reinvest in Minnesota (RIM) Reserve:** This program, which began in 1986, helps protect and improve water quality, reduce soil erosion, and enhance fish and wildlife habitat by retiring private marginal cropland from production. Other benefits include flood control and groundwater recharge. After land is enrolled in a RIM Reserve easement, it is managed under a conservation plan, which includes planting native vegetation or restoring previously drained wetlands. BWSR administers the program in partnership with soil and water conservation districts.



*Conservation programs like RIM and CREP provide habitat for fish and wildlife.*

>**Conservation Reserve Enhancement Program (CREP):** BWSR can leverage federal money through the United States Department of Agriculture to extend the state’s work in enrolling land in conservation easements. CREP combines the state’s RIM Reserve with the federal Conservation Reserve Program (CRP). CREP is a voluntary federal-state-local program that works with farmers and ranchers to set aside environmentally sensitive agricultural lands along waterways to enhance wildlife habitats, improve water quality, reduce erosion and sedimentation, and reduce the impacts of recurrent flooding. Minnesota’s first CREP, which focused on the Minnesota River Basin, resulted in more than 100,000 acres enrolled in conservation easements on frequently flooded cropland, riparian buffers along cropland, and wetland restorations.

**W**hile the state’s first CREP met its goal in 2002, work continued on processing final conservation easements and engineering assistance associated with wetland restoration projects. Wetland restoration projects often require about three years to finish, because of the requirements related to surveying, design, and construction.

More than half of the total 100,000 acres enrolled in the Minnesota River CREP involved wetland restorations and adjacent uplands. BWSR’s engineering section provides project investigation, design, and construction inspection assistance for wetland restoration, working in cooperation with SWCDs, conservation groups, and other partners.

Planning for the second generation CREP in Minnesota proceeded in the biennium. Three watersheds in the state submitted proposals for CREP II. After hearing proposals from the three areas and visiting the watersheds—the Upper Mississippi watershed in the southeast, the Des Moines River and Missouri River watersheds in the southwest, and the Red River watershed in

the northwest—Minnesota Governor Tim Pawlenty decided to move ahead with a combined application for 100,000 acres.

Approval of the application was delayed, however, because of concerns raised by agricultural groups on the use of permanent easements. That started a series of negotiations between the state and federal government and agricultural and conservation stakeholders.

In spring of 2004, Governor Pawlenty announced an agreement that was reached on the application. The revised application increased the number of acres set aside from 100,000 to 120,000, and included the provisions to target 24,000 acres of permanent easements for wetland restorations, 5,000 acres of permanent easements for flood mitigation, and 94,000 acres for longer-term easements.

CREP II is funded with 80 percent federal money and 20 percent state money. The federal share for the application will total nearly \$200 million and the state's portion \$50.7 million. CREP II received \$23 million in the 2005 bonding bill as the first installment of the state's share in the program. With the bonding money approved, Minnesota Governor Tim Pawlenty signed the CREP II agreement with the USDA on April 22, 2005. Signup began on June 6, 2005.

**Wetlands Reserve Enhancement Program (WREP)**

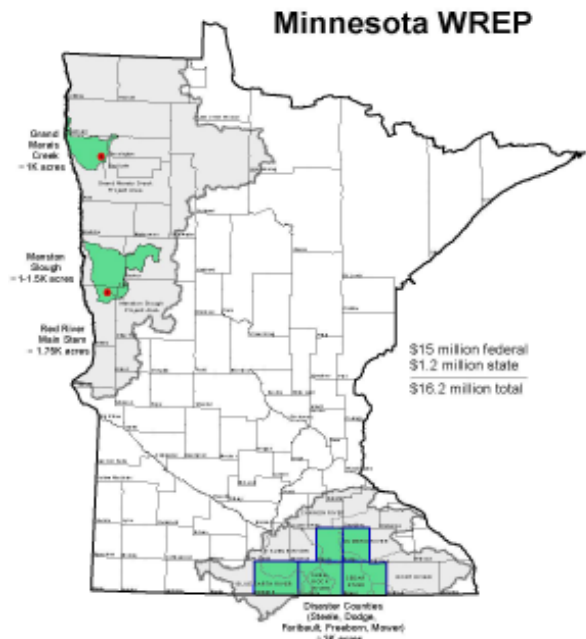
Minnesota became the second state in the nation to participate in the Wetlands Reserve Enhancement Program, which will accelerate the state's wetland restoration efforts. Minnesota's WREP is a three-year, \$16.2 million plan. The announcement for WREP in Minnesota came in October 2004. Under the agreement, USDA will provide \$2.8 million in 2004 and commits to a total of \$15 million over three years. The state will provide \$1.2 million in RIM funding, allocated over three years.

The targeted restoration funds will focus on approximately 7,250 acres, including areas associated with the Governor's Clean Water Initiative Pilot Projects:

- 3,000 acres in the five Presidentially Declared Flood Disaster Counties of Dodge, Faribault, Freeborn, Mower, and Steele counties in the south;
- 1,750 acres along the Red River of the North main stem;
- 1,500 acres in the Buffalo-Red River Watershed in the northwest; and,
- 1,000 acres in the Grand Marais Creek Subwatershed in the northwest.

**Farm Bill Assistance Project**

BWSR continues to be involved in a program that helps market conservation programs available through the 2002 farm bill. In 2004, 35 counties in the state received assistance through the program, started by BWSR, the Minnesota Department of Natural Resources, Pheasants Forever, and Soil and Water Conservation Districts. Through the program, SWCDs are provided matching funds to help pay for staffing costs. Staff members work with individual landowners to review conservation options for their land. The focus of the effort has been to fully leverage the Continuous Conservation Reserve Program along with other Farm Bill conservation programs. In 2002, 26 counties participated and helped enroll 7,000 acres. In 2003, 28 counties participated and helped enroll 23,000 acres. In 2004, participating counties helped enroll 11,022 acres.



## GRANTS TO LOCAL GOVERNMENTS

### Key areas

>**State Cost-Share Program.** BWSR provides grants to Soil and Water Conservation Districts so they can help landowners offset the costs of installing conservation practices that protect water quality and control soil erosion. Landowners are required to match a portion of a total project cost, using their own funds in combination with state, federal, or local sources. A strength of this program is realized by leveraging multiple sources of funding to put conservation on the ground.

BWSR provides a specialized grant program within the cost-share category; funds granted to SWCDs through the Feedlot Water Quality Cost-Share Program are used to help construct waste management systems for small feedlots (less than 500 animal units) to enhance water quality. Priority is given to feedlots that are in riparian locations and have the greatest pollution problem. In 2004, the program recognized and gave priority to producers that were enrolled in a recognized stewardship plan. That change was a result of a partnership with BWSR and the Minnesota Milk Producers Association, the Minnesota Pork Producers Association, and the Minnesota Cattlemen's Association.

>**General Services Grants.** This program provides SWCDs a portion of the funds needed for the general administration and operation of a district. These grants are intended to provide districts a certain degree of operational stability.

>**RIM Services Grants.** This grant helps SWCDs cover implementation and maintenance costs associated with conservation easement programs.

>**Natural Resources Block Grants.** This program provides a portion of the funding for local administration of water management, Wetland Conservation Act implementation, Shoreland Management, the Feedlot Permit Program, and the Individual Sewage Treatment System Program.

Counties can accelerate local water management through a competitive grant program. BWSR coordinates this program, funded through the Legislative Commission on Minnesota Resources. Funds are used to implement high priority actions listed in local water management plans.

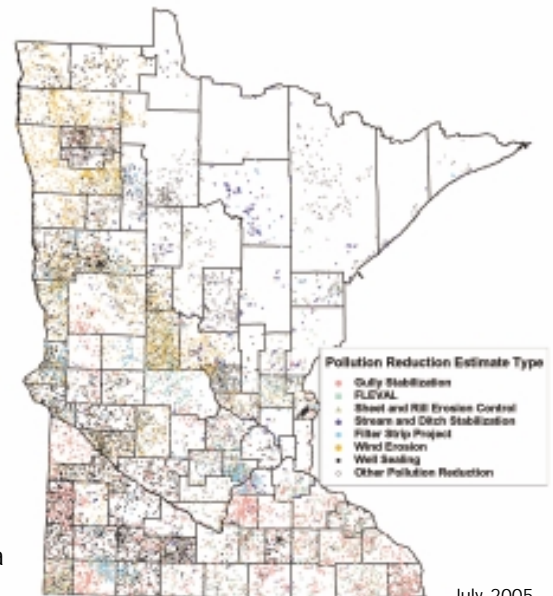
>**Nonpoint Engineering Assistance.** Base grants are provided to joint powers groups of SWCDs for engineering and other assistance needed to construct nonpoint water quality management projects on private lands. Challenge grants are offered through the program when funding is available.

**B**WSR's grant programs fund local program administration and conservation projects on the ground. The agency strives to maximize financial and human resources to better serve the state's water and soil conservation efforts.

## OUTCOMES

### Land & Water Treatment Practices (BMPs) Locations

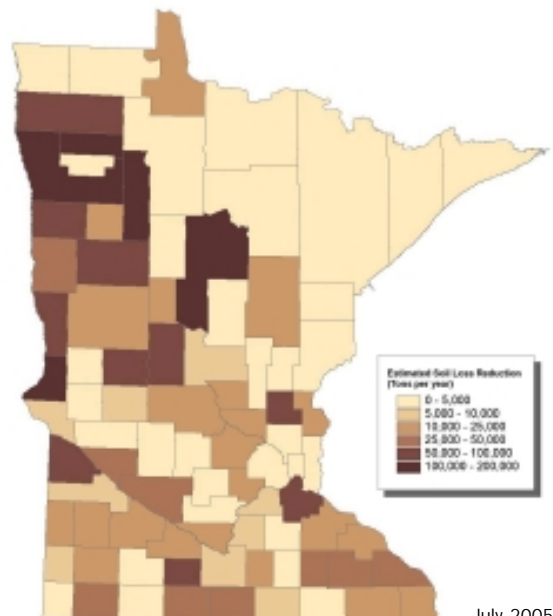
Data from LARS (1997-2002) & eLINK (2003-present)



July 2005

### Estimated Soil Loss Reduction Land & Water Treatment Projects (BMPs)

Data from LARS (1997-2002) & eLINK (2003-present)



July 2005

Several BWSR grants provide direct cost-share assistance for the construction of conservation practices. Grant funds are also used for environmental planning and regulatory activities at the local level. Additionally, BWSR grants some money to Soil and Water Conservation Districts for administration and operations.

Grant programs include accountability and reporting measures. Through the reporting system called "eLINK," the agency can monitor dollars spent and estimate the pollution reduction benefits that conservation practices provide.

eLINK started to be used by local government offices during the biennium. Local governments manage, analyze, and track information on conservation projects, clients, and budgets by logging onto eLINK through a web interface. The system provides an important ability to examine how and if state programs have met natural resource goals and outcomes.

eLINK tracks and reports on BWSR's grant programs, including the Natural Resources Block Grant, the Local Water Management Challenge Grant, State Cost-Share, and Nonpoint Engineering Assistance. The system allows data to be compiled and accessed on a county, watershed, or individual project basis. Users can map projects and study project costs and the natural resource benefits that conservation projects provide.

Where local governments are required to submit grant applications and annual reports, eLINK is used to make the process easier. Grant administration is made easier for state agencies as well, since applications can be reviewed electronically. A new feature planned for the system is the addition of a module for RIM Reserve easement processing.

## WATER MANAGEMENT

### Key areas:

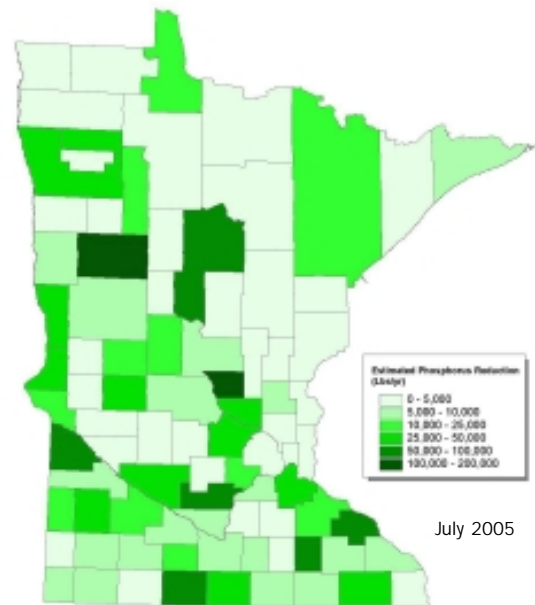
- >**Metropolitan Surface Water Management.** All local units of government in the seven-county metropolitan area have been involved in the preparation and implementation of surface water management plans since passage of the Metropolitan Surface Water Management Act in 1982. When the act was first passed, local governments received one-time planning grants for these plans.
- >**Metropolitan County Groundwater Management.** In 1987, metropolitan counties were given the authority to prepare and adopt groundwater plans. That provided a mechanism for counties to set priorities, address issues, and build local capacity for the protection and management of groundwater.
- >**Comprehensive Local Water Management.** The purpose of this program is to protect water resources through the adoption and implementation of local water management plans that are based on local priorities. The program was created for counties outside of the metropolitan area.

A series of laws enacted in the 1980s began a new relationship between the state and local governments and created an expectation that local governments were to play a principle role in managing water resources. The Minnesota Legislature adopted the Metropolitan Surface Water Management Act in 1982, the Comprehensive Local Water Management Act in 1985, and Metropolitan Groundwater Management Act in 1987. In 1989, the state enacted the Local Water Resources Protection and Management Program, which provides financial assistance to help local governments implement high priority action items identified in their water plans.

## OUTCOMES

### Estimated Phosphorus Reduction Land & Water Treatment Practices (BMPs)

Data from LARS (1997-2002) & eLINK (2003-present)





Streamlining of the County Local Water Management Program took place during the 2003 session. The Minnesota Legislature approved a number of changes to the Comprehensive Local Water Management Act (M.S. 103B.301)—for counties outside the seven-county metropolitan area—and repealed the county Local Water Management Rule (M.R. Chapter 9300).

BWSR sought these changes to shift the focus of local water plans to implementing projects and programs that solve priority local water resource concerns and to streamline and shorten the process that counties have used to update their local water plans. The changes in the 2003 session repealed the rules that required the inclusion of 55 data elements and 18 assessments in the plans.

Comprehensive local water management plans now focus on priority concerns, which describe an existing or anticipated issue or a specific resource or area targeted for management. For each priority concern, the local water management plan contains an assessment and identifies goals, objectives, and actions to address the concern. The new process encourages upfront involvement of local and state governments and citizens. A county must notify state agencies, local governments, and other interested parties of its intent to update a water management plan and invite them to participate in identifying the priority concerns the plan will focus on. Local governments are responding favorably to the new process.

With funding support from the Legislative Commission on Minnesota Resources, BWSR provides eligible counties, SWCDs, Watershed Districts, and Watershed Management Organizations an opportunity to accelerate priority items in their water plans through a competitive grant program. Funding in the 2004-2005 biennium was \$500,000, which supported 21 conservation and natural resources projects and activities. LCMR recommended \$1 million in funding for the program in the 2006-2007 biennium.

## ENGINEERING

### *Key areas:*

>**Technical assistance, coordination, and training.** During 2004-2005, the BWSR Engineering unit provided a wide range of technical assistance, coordination, advice and education for conservation practices, flood damage reduction, and natural resource enhancement in Minnesota. This work included:

- a wide range of engineering and project management assistance for wetland restorations and associated conservation practices for the Minnesota River Basin Conservation Reserve Enhancement Program (CREP), state wetland banking programs, and the Reinvest in Minnesota Reserve / Wetland Reserve Program partnership (RIM/WRP);
- BWSR advisory review of numerous watershed district engineer's reports for drainage system improvements and maintenance, flood damage reduction, and natural resource enhancement;
- leadership, on behalf of MPCA, DNR, and BWSR, to resolve NOAA and EPA conditional approval of Minnesota's Lake Superior Coastal Nonpoint Program;
- participation on the Technical and Scientific Advisory Committee of the Red River Basin Flood Damage Reduction Work Group;
- technical and administrative support to joint powers organizations of Soil and Water Conservation Districts (SWCDs) for the Nonpoint Engineering Assistance Program that provides engineering assistance statewide for a wide range of conservation practices on private lands;
- coordination with other state agencies, the USDA Natural Resources Conservation Service, University of Minnesota, and various nongovernment organizations to support and provide information and education, as well as technical and financial



*BWSR's Engineering section continued its work on wetland restorations associated with the Minnesota River CREP.*

assistance, at the local level for erosion control, feedlot environmental upgrades, Lake Superior coastal nonpoint pollution control, and other water quality and natural resource enhancement practices;

- technical assistance for development of the Conservation Reserve Enhancement Program in Minnesota (CREP II); and
- information and education for wetland restoration, drainage management, flood damage reduction, and natural resource enhancement.

The Minnesota River CREP continued to be an important environmental protection and enhancement program for Minnesota in 2004-2005. BWSR Engineering worked with 33 SWCDs, three joint powers of SWCDs, two private consulting firms, hundreds of private landowners, and many public drainage authorities to restore hundreds of wetland basins ranging in size from a few acres to hundreds of acres. These wetland restorations involved topographic surveys, investigation of surface and subsurface drainage systems, soils investigations, design, and coordination with adjacent landowners, road authorities, drainage authorities, and utility owners, as well as construction and technical certification assistance. The benefits of these wetland restorations include runoff reduction, erosion control, water quality protection, increased biodiversity, and wildlife habitat enhancement. Several of these wetland restorations involved restored lakebeds.

Wetland restoration for public wetland banking was also a major component of BWSR Engineering's workload during 2004-2005. This is a component of the Wetland Conservation Act. Phases two and three of the nearly 2,000-acre Vesledahl wetland banking and wildlife habitat project in Polk County were completed during this period. This project involved partnerships with the Minnesota Department of Natural Resources and Minnesota Department of Transportation. The project includes 141 wetland basins ranging in size from 0.25 to 50 acres each. Engineering investigation, design, and construction inspection were provided for a number of other public wetland banking projects for local road impact mitigation across the state. Engineering review was also provided for many private wetland banking projects. In response to a new partnership between the BWSR and MnDOT, BWSR became more involved with wetland impact mitigation and banking for state road projects. Another large public wetland banking project for which site investigation and design got underway during 2004-2005 is the Goertz project in Chisago County.

BWSR received an EPA grant in 2004 for \$101,250 to update the Minnesota Wetland Restoration Guide, which was first published by BWSR in 1993. This is a key reference document for wetland restoration in Minnesota, including mitigation and banking for the state Wetland Conservation Act. The updated publication will draw on the collective experience of BWSR and others involved in wetland restorations in Minnesota since 1986.

**Lake Superior Coastal Nonpoint Program**

During 2004-2005, BWSR Engineering provided leadership, on behalf of MPCA, DNR, and BWSR, to resolve NOAA and EPA conditional approval of Minnesota's Lake Superior Coastal Nonpoint Program. This special project was funded by an EPA Section 319 Program grant. The six NOAA and EPA conditions were resolved by providing additional information and documentation



**NPEA Accomplishments Summary for Calendar Years 2003-2004**

|               | Erosion Control | Feedlots | Wetlands | Flood Damage Reduction | Other | Total Practices Constructed | Total Assisted |
|---------------|-----------------|----------|----------|------------------------|-------|-----------------------------|----------------|
| <b>TSA 1</b>  | 20              | 0        | 1        | 0                      | 0     | 21                          | 110            |
| <b>TSA 2</b>  | 79              | 23       | 10       | 1                      | 3     | 116                         | 191            |
| <b>TSA 3</b>  | 50              | 3        | 4        | 4                      | 23    | 84                          | 111            |
| <b>TSA 4</b>  | 56              | 11       | 5        | 1                      | 0     | 73                          | 122            |
| <b>TSA 5</b>  | 63              | 131      | 24       | 0                      | 0     | 218                         | 443            |
| <b>TSA 6</b>  | 64              | 19       | 11       | 6                      | 5     | 105                         | 175            |
| <b>TSA 7</b>  | 13              | 11       | 15       | 0                      | 9     | 48                          | 71             |
| <b>TSA 8</b>  | 17              | 10       | 1        | 0                      | 5     | 33                          | 79             |
| <b>TSA 9</b>  | 5               | 31       | 40       | 0                      | 1     | 77                          | 174            |
| <b>TSA 10</b> | 5               | 9        | 39       | 4                      | 1     | 58                          | 99             |
| <b>TSA 11</b> | 16              | 122      | 5        | 1                      | 2     | 146                         | 331            |

TSA=Technical Service Area

about how existing programs and authorities at the state and local level work together to ensure implementation of the coastal management measures required by the Coastal Zone Management Program to protect and restore coastal resources. This project involved coordination with MPCA, DNR, local government units, and the University of Minnesota. In November 2005, NOAA and EPA staff recommended full approval of Minnesota's Coastal Nonpoint Program (CNP).

#### **Nonpoint Engineering Assistance Program**

BWSR administers the Nonpoint Engineering Assistance Program (NPEA), which enables 11 joint powers groups of SWCDs to share engineer and technician services for a wide variety of conservation practices on private lands. Key state and federal financial assistance programs supported include the State Cost-Share Program, State Feedlot Water Quality Management Cost-Share, Ag BMP Loan Program, USDA Environmental Quality Incentives Program (EQIP), and the EPA Section 319 Grant Program. BWSR Engineering continued to provide technical and administrative support for this program during 2004-2005. Inflation and budget constraints at the state and SWCD level have contributed to challenging the technical staffing capacity of this program. During 2004-2005, BWSR coordinated with SWCD JPOs to define a new state-local funding arrangement for this program that will be implemented in FY 2006. Funding for this statewide engineering assistance program is expected to remain a substantial challenge.

During 2004-2005, federal funding for technical assistance did not keep pace with substantially increased Farm Bill funding for the EQIP for conservation practices on private working lands. This federal technical assistance shortfall, combined with state and local funding constraints, challenges the ability to fully, and most effectively, utilize EQIP conservation practice funding in Minnesota.

#### **Technical and Scientific Advisory Committee**

The Technical and Scientific Advisory Committee (TSAC) for the Red River Basin Flood Damage Reduction Work Group includes members with a wide range of technical expertise. BWSR's chief engineer participates on this committee, which has authored 13 technical papers since 1998 regarding flood damage reduction and natural resource enhancement issues in the Red River Basin. As technical advisors to signatories of the Red River Basin Flood Damage Reduction Mediation Agreement, the TSAC members help find common ground for technical issues that are key to implementation of flood damage reduction and natural resource enhancement projects in the Red River Basin.

#### **Policy development and coordination**

Partnerships between federal, state, and local government units and the University of Minnesota are critical for development and delivery of information and education, as well as effective technical and financial assistance, for conservation on private lands. BWSR Engineering provides a wide range of coordination, policy development assistance, and consultation for conservation on private lands. During 2004-2005, assistance was provided for an update of State Cost-Share Program policies and guidance, update of a report on feedlot financial needs for environmental compliance, update of the Feedlot Chapter of the Minnesota Nonpoint Management Plan, development of a state Stormwater Rule, update of the Feedlot Evaluation Model, as well as development and delivery of information and education for nutrient management and drainage management.

During 2004-2005, BWSR Engineering also helped develop policies and procedures for the second Conservation Reserve Enhancement Program in Minnesota. This program has a total enrollment goal of 120,000 acres, of which 24,000 acres are for wetland restoration and 5,000 for flood damage reduction practices. This is another great federal-state-local-private environmental protection and restoration partnership. BWSR Engineering began investigation and design of a number of associated wetland restoration projects in late 2005.

Another function provided by BWSR Engineering during 2004-2005 was information and education for wetland restoration, drainage management options, technical approval authority, state cost-share programs, and feedlot pollution abatement. Presentations were given at annual meetings of the Minnesota Association of Watershed Districts, Minnesota Association of SWCDs, Minnesota Association of Conservation District Employees, two drainage management conferences, a conservation partnership joint engineers meeting and other meetings, workshops, and forums to help inform decision makers and develop conservation technical assistance.

## AREA II MINNESOTA RIVER BASIN PROJECTS, INC.

### Key areas

>**Project management and planning.** Area II Minnesota River Basin Projects, Inc., is a nine-county joint powers organization that receives funding through BWSR. Area II aims to reduce flooding problems and improve water quality and wildlife benefits in the Minnesota River Basin in southwestern Minnesota.

Member counties include: Brown, Cottonwood, Lac qui Parle, Lincoln, Lyon, Murray, Pipestone, Redwood, and Yellow Medicine. The organization provides technical and financial assistance to member counties for the engineering, land rights acquisition, and construction of floodwater retarding/retention structures within a general plan for floodplain management.

### FY 04-05 Constructed Projects

- 2 road retentions
- 3 dams
- 4 small dam repairs
- 1 wetland restoration
- Minneota Recreational Trail (design and inspection)
- Lazarus Creek Floodwater Retention Project

### FY 04-05 Designed Projects

- 12 road retentions
- 2 dams
- 3 small dam repairs
- 1 streambank stabilization

Construction began on the Lazarus Creek floodwater retention project May 3, 2004. The project was constructed to reduce peak discharges for flood events on Lazarus Creek, which will reduce downstream damages. The project goal is to reduce the inflow of floodwaters by 68 percent, from 1,207 cubic feet per second to 385 cubic feet per second. Major construction was completed by mid-December 2004. Construction was funded in part by \$1.4 million in bonding money. Area II was a project partner.

## STATE SOILS OFFICE

### Key areas

>**Soils Data and Technical Assistance.** Established in August 2000, the State Soils Office is a joint venture between BWSR and the University of Minnesota Department of Soil, Water, and Climate. The State Soils Office also works closely with the USDA Natural Resources Conservation Service. Soils data help local governments better assist landowners in making decisions on land-use issues, especially when it comes to wetlands, development, and recreation. The need for current and accurate soils data has become even more critical with the more intense use of land and soil resources over the past 20 years.

The State Soils Office received \$500,000 in LCMR funding for a project "Internet Delivery of Digital Soils Data." The project will accelerate digitizing of completed soil surveys for web-based user application and for agreements with Pine and Crow Wing counties to begin soil surveys. Beside managing this project, the office provides technical assistance and support to local units of government and BWSR staff on wetland issues and other soils-related interpretations.