

2000-01 Biennial Report to the **Minnesota Legislature**



JANUARY 2001

TABLE OF CONTENTS

Letter from the board chair	2
Mission & strategic plan	4
Board membership & BWSR staff	5
Program and grant overview	6
Reinvest in Minnesota (RIM) Reserve & Permanent Wetland Preserves	7
Wetland Conservation Act	9
Erosion Control & Water Quality Cost-Share Program	11
Comprehensive Local Water Planning and Management	12
Metropolitan Surface Water Management	14
Nonpoint Engineering Assistance Program	15
Area II Minnesota River Basin Projects, Inc.	16
Outcomes	17
One-time and general services grants	19
Outside funding	20

BWSR is an equal opportunity employer.

Information contained in this report is available in an alternative format upon request. Cost for the report's production was \$1,700.

Phone: (651) 296-3767 Fax: (651) 297-5615
TTY: 800-627-3529

LETTER FROM THE BOARD CHAIR

Dear friends and colleagues:

On behalf of the Board of Water and Soil Resources (BWSR), I am pleased to present the *2000-01 Biennial Report to the Legislature*. The biennium has been a time of great successes, all aimed at providing better service to local units of government and enhancing the stewardship of Minnesota's natural resources.

Once again, BWSR's work with the Conservation Reserve Enhancement Program (CREP) is one of the agency's most significant accomplishments for the biennium. Partnerships with Ducks Unlimited, Minnesota Waterfowl Association, and Pheasants Forever, along with other conservation groups, have helped sustain strong interest in the program. One of the initial challenges facing the partners was to change a false impression that CREP was going to take productive farmland out of production. That is now behind us; CREP is viewed as a program that benefits farmers who want to take marginal land out of production in the Minnesota River Valley watershed. The slogan "Farm the Best, Buffer the Rest," which is used in CREP marketing materials, resonates well.

Collaboration with other state agencies has been beneficial, too. The Minnesota Department of Natural Resources allocated funds to support CREP technicians who market the program with landowners at the local level. BWSR is committed to the program's success and is working aggressively to promote its benefits. Messages about CREP and its benefits—to water quality in the Minnesota River, the Mississippi

River, and the Gulf of Mexico; to wildlife habitat; and to the rural economy—are being heard. Now, the critical challenge for the program is to realize the full potential of the federal dollars that are available until the end of

September 2002. It will take the leadership of both the administration and the legislature to fully fund the request that would allow the state to leverage \$98 million in federal support available for CREP.

Clearly, the state is achieving a tremendous amount of avoidance of impact on wetlands because of the Wetland Conservation Act. Local governments will see even more success as they continue to integrate wetlands into their day-to-day land-use decisions. Once again, this biennium saw further refinement of the Wetland Conservation Act. In its initial stages, WCA treated everyone the same and didn't recognize the diversity of land in the state. That created stresses on the program and created inequities for our citizens. The latest refinement with WCA simplifies wetland regulation and ensures greater coordination among state and federal agencies involved in wetland conservation. Everyone will benefit from these changes. Continuing the simplification will require the state to seek 404 delegation from the Army Corps of Engineers and enter into an agreement with the U.S.D.A. This may cost the state and local governments additional time and effort; however, true efficiency and simplification can be realized.

Investment in the agency's Local Government Annual Reporting System—also known as LARS—is beginning to pay off. This reporting system allows us to document the results of the investment we put into programs. BWSR can track a number of indicators, including soil loss reduction, sediment reduction, and phosphorus reduction by specific projects. That powerful information will help guide both local units of government and the state in determining priorities for funding. This system provides us with a baseline for improving our service to local governments through electronic means; we expect to see integration of LARS and other reporting systems into web-based tools in the future.

Another success for the agency is the efforts of local water management at the county, watershed district, soil and water conservation district, and city government levels. The public participation, assessment of issues, identification of solutions, setting of priorities, defining measurable outcomes, and delineation of roles and responsibilities for state and local partners to



realize the outcomes continues to receive national recognition. Local governments are continuing to accept the challenge of effective and efficient management of the state's water and related natural resources. The state continues to look to local government as the mechanism for sound natural resources management and land-use planning and decision-making. The local water management process in place is the framework for integration of water resources, natural resources, and land use. As the state looks more and more to local governments, the challenge for the state is to continue to acknowledge that the state must be accountable for sharing in the effort to realize the outcomes.

All of these achievements cannot have been accomplished without the assistance and support from local units of government, partner agencies, and a dedicated

staff at the Board of Water and Soil Resources. As this agency moves forward, BWSR will continue to focus on its mission to serve local units of government, build on its successes, and work to develop and promote wise management of Minnesota's water and soil resources.

Sincerely,

A handwritten signature in cursive script, reading "Kathleen Roer".

Kathleen Roer
Chair, Minnesota Board of Water and Soil Resources
January 2001

MISSION AND STRATEGIC PLAN

The mission of the Board of Water and Soil Resources is to assist local governments to manage and conserve their irreplaceable water and soil resources.

This mission reflects the belief that effective environmental management can be accomplished only through a state/local partnership. The state's role—carried out through BWSR—is to provide local governments with the tools they need. These tools include overall environmental policies and guidelines; long-term goals; regular communication between state and local levels of government; and financial, technical, and administrative assistance. Local government brings to the table its land-use authority, accomplished through local planning and zoning and regulation, and its intimate knowledge of local resource needs and uses, local personalities, and local priorities.

BWSR's assistance comes in a variety of ways. During the stages of resource policy development and implementation—at the legislative or state agency level—BWSR acts as the communication link, providing local governments with a voice at the state level and in turn communicating state priorities and interests. BWSR's monthly board meetings serve as a forum for local governments to provide input to discussions on state policy, funding directions, and program implementation. BWSR's grant programs dispense funding to carry out local resource plans, and BWSR staff members contribute technical help. Board staff also offer training on new programs and basic and advanced administrative and technical skills.

Although all BWSR programs and activities are driven by its mission, certain core beliefs form the underlying structure for how the agency carries out those programs and activities. These beliefs, outlined in BWSR's strategic plan, state 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.

BOARD MEMBERSHIP & BWSR STAFF

The Board of Water and Soil Resources itself consists of 17 members representing local governments, the general citizenry, and the state's environmental agencies. Three members represent soil and water conservation districts; three represent counties; three represent watershed management organizations or watershed districts; and three are citizen members. The remaining five members represent the Minnesota Department of Health, the Minnesota Department of Agriculture, the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, and the University of Minnesota Extension.

The governor appoints BWSR members to four-year terms, with the possibility of reappointment. The governor also names the chair.

BWSR's approximately 70 staff members are located in one of eight offices throughout the state. Half of BWSR's staff is located in its field offices. Its central and administrative staff are housed in St. Paul. Half of the agency's field staff hold the position of board conservationist. Board conservationists (BCs) in each office serve as the primary contact for any local government working with BWSR. Work areas are generally five to eight counties in size. The BCs provide an array of technical and administrative assistance to local governments; they provide "one-stop shopping" for all agency clientele. These staff form the backbone of our staff delivery system across the state.

Other staff and services include:

- Staff engineers design wetland restorations, and along the north shore of Lake Superior, erosion control measures.
- A staff accountant works with local governments (primarily soil and water conservation districts) to help them maintain a financial bookkeeping system.
- A staff forester works with local governments, primarily in the northern part of the state, to provide assistance with forest management and stewardship planning.
- Wetland specialists provide wetland training, delineation, and program assistance to local governments.
- Education specialists work with BWSR staff and local governments to provide assistance with outreach and education.
- A communications specialist provides assistance to local governments with news releases and other communications needs.

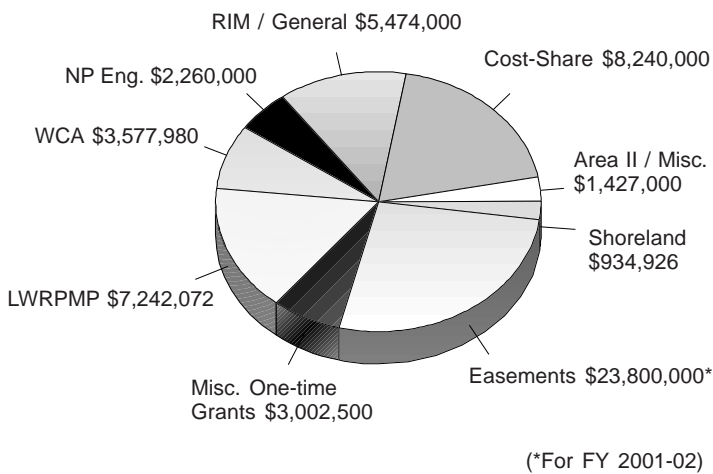


BWSR offices; heavier borders designate regions; lighter borders designate board conservationists' work areas.

PROGRAM & GRANT OVERVIEW

A large portion (74 percent) of BWSR's biennial budget goes to local government grants. These grants go out through a variety of programs designed to encourage wise local resource management and conservation. Each local government grant program is a state/local partnership, with both state government and local government contributing.

FY 2000-01 GRANTS / EASEMENTS



Local government grant programs and their goals include:

- The Local Water Resources Protection and Management Program centers around development and implementation of county local water plans.
- The Erosion Control and Water Quality Cost-Share Program shares landowners' costs to install erosion control practices and water quality improvements, including streambank stabilization, grassed waterways, farming terraces, and other practices.
- The Nonpoint Engineering Assistance Program employs engineers and engineering technicians to design conservation practices for local governments.

- The Wetland Conservation Act requires the replacement of drained or filled wetlands.
- The Shoreland Management Program seeks to enhance water quality, preserve scenic resources, and preserve economic value when shorelands are developed.
- The Area II Minnesota River Basin Projects, Inc. provides assistance to a frequently flooded nine-county area in Southwestern Minnesota.

In addition, BWSR administers several conservation easement programs, which the Legislature funds separately from its grant programs, generally through selling government bonds. These programs pay landowners to set aside certain marginal cropped lands, at-risk wetlands, and restored or drained wetlands. As with BWSR grant programs, SWCDs administer these programs at the local level. The two main conservation easement programs BWSR administers are:

- The Reinvest in Minnesota (RIM) Reserve Program places conservation easements, including CREP, on drained wetlands (for restoration) and other marginal agricultural lands. BWSR also provides soil and water conservation districts with implementation funding for RIM Reserve.
- The Permanent Wetland Preserves (PWP) Program places conservation easements on existing wetlands of the types that are most frequently drained.

REINVEST IN MINNESOTA (RIM) RESERVE & PERMANENT WETLAND PRESERVES

PROGRAM GOAL

To improve and protect water quality, reduce soil erosion, and enhance fish and wildlife habitat

FY 1999-2000 STATE FUNDING

\$15.0 million (from 1998 bonding bill)

FY 1999-2000 PROGRAM ACCOMPLISHMENTS

Program	Acres
CREP	13,189
RIM/WRP	4,091
RIM	7,487
PWP	542
TOTAL	25,309

REINVEST IN MINNESOTA (RIM) RESERVE

The Reinvest in Minnesota (RIM) Reserve Program, authorized in 1986, improves water quality, reduces soil erosion (see map on Page 18), and enhances fish and wildlife habitat by retiring marginal lands from agricultural production and restoring previously drained wetlands. The program pays landowners a percentage of the value of their land to enroll it in a conservation easement. Types of land eligible for the program include drained wetlands (for restoration), highly erodible cropland, riparian agricultural land, pastured hillsides, and sensitive groundwater areas.

As with many other BWSR programs, soil and water conservation districts (SWCDs) administer the program locally. SWCDs screen and prioritize applications based on how well they address local resource protection needs and priorities.

The FY 1999-2000 biennium successes added to the program's fine history. Two major partnership efforts—the Conservation Reserve Enhancement Program (CREP) and the RIM Reserve/Wetland Restoration Program (RIM/WRP) partnership—provided great opportunities to increase enrollment acreage and environmental benefits.

CREP, which began in 1998 and ends in 2002, combines state and federal land set-aside programs and leverages federal money (more than \$163 million is available) for Minnesota. CREP is targeted at the



CREP marketing efforts included billboards along roads across Southern Minnesota.

Minnesota River watershed, where it aims to enroll 100,000 acres. Eligible lands include drained wetlands (for restoration), riparian lands, and flood prone lands. The program leverages about \$2.30 for each state dollar spent. BWSR and the U.S. Department of Agriculture Farm Service Agency jointly administer the program.

During FY 1999-2000, CREP enrolled 360 easements on 13,189 acres. State payments to landowners for these easements and conservation practice plan establishment were \$9.1 million. This leveraged approximately \$20 million in federal dollars.

The "Regular" RIM Reserve Program secured 306 easements on 7,487 acres of environmentally-sensitive cropland acres across the state. The state cost (the payments to landowners) for these easements was \$5.4 million.

The RIM Reserve/WRP partnership combines the RIM Reserve Program with the federal WRP (administered by the U.S. Department of Agriculture Natural Resources Conservation Service) to restore wetlands and place them first in a 30-year WRP easement, followed by a perpetual RIM Reserve easement. This provides for permanent protection of the wetlands while leveraging federal dollars and reducing RIM Reserve costs. During FY 1999-2000, the RIM Reserve/WRP Partnership was able to fund 64 easements, which encompass 4,091 acres at a state cost of \$2.3 million.

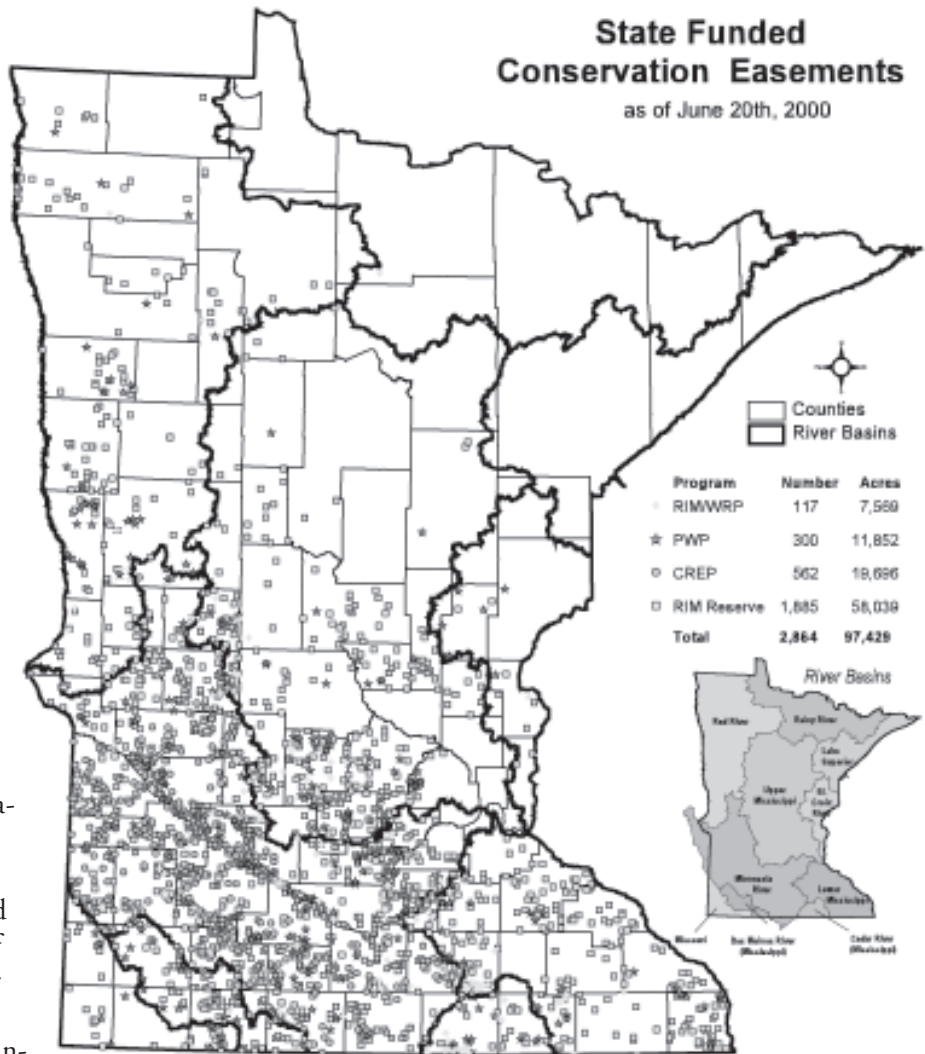
Since it began in 1997, the RIM Reserve/WRP partnership has leveraged approximately \$7.0 million federal dollars which, combined with \$3.5 million in state money, has restored and protected 7,569 acres of wetlands and adjacent uplands. This partnership allows the state to secure permanent wetland restoration easements at one-half the cost when compared to RIM Reserve alone.

Including land enrolled through CREP and RIM/WRP partnerships, RIM Reserve has secured approximately 2,864 easements, covering about 97,156 acres, since it began in 1986.

Of those totals, 25,309 acres were enrolled in the FY 1999-2000 biennium, at a cost of \$17.4 million (\$15.0M from 1999-2000 appropriation; \$2.35M came from older accounts). The 25,309 acres includes 11,314 acres of restored wetlands and adjacent uplands and 13,285 acres of riparian lands. Sensitive groundwater areas, highly erodible cropland, and pastured hillsides comprise the remainder of the enrolled acres.

Funding for the program has varied widely since it began, from a 1986-87 high of about \$18 million to a 1988-89 low of \$1.5 million. In 2000, the Legislature approved \$21 million for easement acquisition through the RIM Reserve Program and the Permanent Wetland Reserves Program for the FY 2001-02 biennium. Because of the state's agreement with the federal government, that will leverage more than \$43 million for CREP.

RIM Reserve also continues to obtain federal grant money through the North American Wetland Conservation Act (NAWCA) to acquire easements on drained restorable wetlands in the Prairie Wetland Heritage Project Area, the Heron Lake watershed in southwestern Minnesota, and the Northern Tallgrass Prairie ecoregion in northwestern Minnesota, bringing the total amount received from NAWCA since 1991 to \$2.8 million.



Numbers are cumulative

PERMANENT WETLAND PRESERVES

The Permanent Wetland Preserves (PWP) Program encourages landowners to preserve existing at-risk wetlands of the types most commonly drained or filled (wetland types 1, 2, 3, and 6) by allowing those areas to be enrolled in a permanent easement. The program functions similarly to the RIM Reserve Program, with landowners being paid a percentage of the assessed value of their land when they place it in an easement. During the 1999-2000 biennium, BWSR spent about \$258,411 to obtain 23 PWP easements totaling 542 acres. Since the program began in 1991, approximately 11,609 acres of existing wetlands have been placed under permanent protection through the program. The program also provides compensation to landowners when WCA denies a replacement plan.

THE WETLAND CONSERVATION ACT

PROGRAM GOAL

No net loss of wetlands in Minnesota

FY 2000-01 STATE FUNDING

\$3.6 million; local government matching funding of \$3.6 million

FY 2000-01 ACCOMPLISHMENTS

- Expansion of the wetland banking program to include 41 counties
- Wetland bank deposits totaling 2,187 acres since 1994
- Streamlined permitting to combine WCA and Army Corps of Engineers' approval for most wetland projects
- Of 4,548 projects reported in 1997, 3,372 or 74 percent resulted in wetlands avoidance; that protected an estimated 2,888 acres of wetlands
- Rules developed in conjunction with local governments, DNR, and multiple interest groups
- Development and distribution of wetland vegetation restoration manual
- Revision and distribution of the WCA Handbook to local governments and made improvements to web site version
- Presentation of 12 technical or administrative training sessions; total attendance of 1,600
- Total number of comprehensive wetland protection and management plans: 25

BACKGROUND

The Wetland Conservation Act, a broad wetlands protection measure first approved by the legislature in 1991, saw further refinement in the 2000 Legislative session as Senate File 83 was signed into law. The latest change is considered a significant first step toward simplifying and consolidating wetland regulations in the state. The resulting consistency will enable local units of government to address most situations when alterations to wetlands are desired.

Significant provisions of the legislation that have been incorporated into the rule include:

- Common standards were established for alterations of wetland types 3, 4, and 5, including excavations, wetland replacement location, and wetland replacement standards. In many cases, these changes

mean that wetland work permitted through the WCA often does not need to also be permitted by the federal government.

- Local road authorities have the option of reporting wetland impacts to the Board of Water and Soil Resources annually or on a project-by-project basis.
- A change in parts of the Public Waters Inventory gives the DNR flexibility to change wetlands currently classified as public waters wetlands to Wetland Conservation Act wetlands.
- DNR conservation officers can issue cease and desist orders to both landowners and contractors doing work that is suspected of violating wetlands laws, rather than immediately issue criminal citations.

Changes in the law were specifically intended to minimize the number of contacts required for landowners who seek to drain or fill a wetland. Additionally, changes should further coordination among local, state, and federal agencies involved with wetland conservation. The next step, however, will be to examine how to make the underlying procedures and standards involved in wetland regulations work more effectively by eliminating redundancy and reducing paperwork at all levels.

Data collected in 1997 and 1998 indicates that WCA continues to provide a significant incentive for landowners to revise their projects to avoid impacting wetlands. Of the 4,548 projects proposed in 1997, approximately 74 percent (3,372) were ultimately resolved with no disturbance at all to a wetland. Other numbers show that in 1997, 384 acres were replaced via replacement plans; in 1998, 326 acres were replaced via replacements plans.

Another noteworthy success in wetland conservation is the wide acceptance by local governments and state and federal agencies of the Minnesota Wetland Bank as *the* mechanism for replacing wetlands. The system allows landowners the option of purchasing wetlands credits established by previously restored or created wetlands. Since the program began in 1994, approximately 2,187 acres have been deposited and about 846 acres have been withdrawn, leaving a balance of approximately 1,341 acres.

RECOMMENDATION FOR CHANGE

As part of earlier amendments to WCA, BWSR assumed responsibility from local road authorities for replacing wetlands lost through repair and replacement of existing roads in the state. That program is serving the needs of other state agencies and federal agencies well. Road projects are known to have the biggest impact on wetlands in the state; wetland conservation in this context is critical to the state’s entire efforts relating to WCA. Local government units have recommended that the state mandate for replacing wetlands lost to local government public transportation projects should be a base element in the state budget and not subject to annual debate in the budget process. That issue is expected to be addressed by the Legislature in 2001.



Photo: Mark Nelson

Wetland delineators discuss “red” soils at a delineation refresher course near Duluth. The course was sponsored by BWSR, U.S. Army Corps of Engineers, and St. Louis County.

THE EROSION CONTROL & WATER QUALITY COST-SHARE PROGRAM

PROGRAM GOAL

To protect and improve water quality by controlling soil erosion and reducing sedimentation

FY 2000-01 STATE FUNDING

\$8.24 million

FY 2000-01 ACCOMPLISHMENTS

- Critical area stabilizations: 18
- Diversions: 308
- Field windbreaks: 28
- Grass waterways (stormwater control): 390
- Feedlot management: 68
- Riparian buffer strips: 24
- Sediment retention, erosion or water control: 126
- Streambank, shoreland, and roadside: 160
- Stripcropping: 4
- Terraces: 146

Minnesota's Erosion Control and Water Quality Cost-Share Program—commonly known as the Cost-Share Program—is aimed at protecting and improving water quality by controlling soil erosion and reducing sedimentation.

The program pays up to 75 percent of a landowner's cost of installing a variety of conservation practices, including animal waste control systems, terraces, field windbreaks and stormwater control systems. Soil and water conservation districts (SWCDs) administer the program locally, taking landowner applications and determining which projects best fit local needs and priorities. SWCDs receive varying amounts of money based upon an allocation formula that weighs a number of factors.

During the FY 2000-01 biennium, the Cost-Share Program received about \$8.24 million in legislative funding, \$2 million more than its usual allocation. The Legislature targeted this additional money toward water quality management grants related to feedlots, with \$1.6 million dedicated to grants for small feedlots (with a priority on feedlots that had been cited for water quality violations) and about \$200,000 for additional technical assistance.

As has been done since 1994, about \$1 million of the remaining money continues to be allocated to the Minnesota River basin, reflecting the continuing awareness of that watershed's unique concerns and the state's 10-year commitment to clean up the Minnesota River. In this biennium, 17 SWCDs within the basin used this money for a variety of erosion, animal waste, and sediment control systems.

The remaining funding, plus about \$463,000 in roll-over funding from the previous biennium, was divided between standard cost-share projects, which address erosion and sedimentation problems (\$3.8 million); and special projects, which allow SWCDs to accelerate treatment of a particular area or experiment with unique and innovative solutions to erosion problems (\$788,000).

Over the biennium, BWSR maintained its commitment to the North Shore by continuing to staff a north shore engineer to provide BMP educational and technical design assistance for projects on Lake Superior. Since BWSR established this position in 1994, the engineer has designed and constructed about 28 projects, in addition to helping develop educational materials and provide training workshops. The availability of this technical assistance has also allowed the BWSR to solicit about \$442,760 in federal grants for North Shore erosion control projects.



BWSR's assistance with the state's erosion control projects includes this one near Lutsen. The site has high-erosion potential, with sand and clay banks 8 to 10 feet tall. The second photo shows how the shore was protected with pinned-rock riprap revetment.

Photos: Gene Clark

COMPREHENSIVE LOCAL WATER PLANNING & MANAGEMENT

BACKGROUND

The Comprehensive Local Water Planning and Management Act was passed in 1985 to encourage counties outside of the metropolitan area to plan for the protection and management of water and water-related resources. The Legislature passed the Ground Water Protection Act in 1989, which contained language providing ongoing state support for local water planning via the Local Water Resources Protection and Management Program.

Counties drafted and adopted their initial plans in the late 1980s and early 1990s. The comprehensive plans contain resource information; 55 data elements; resource assessments; issues of concern, goals, objectives and actions; and an implementation program. Most county water plans are updated every five years.

ACTIVITY

Total FY 2000-01 State Funding	
Base Grants	\$5,305,072
Challenge Grants	\$1,745,000 (\$1.0 million from LCMR)
Metro Planning Grants	\$ 192,000
Total	\$7,242,072
Total Local Match	\$7.05 million
Number of Plans	80

ACCOMPLISHMENTS

- Local inventories such as septic systems, riparian pastures, feedlots, and sensitive lands.
- Monitored targeted water bodies to collect data such as phosphorous levels, chlorophyll A, transparency levels, macro invertebrates; and assessed the data.
- Targeted conservation practices such as sealing abandoned wells, sealing abandoned ag waste systems, establishing buffer strips, and stabilizing streambanks.
- Provided education activities such as distributing newsletters, hosting environmental leadership forums, and conducting grade and high school activities focused on water protection and management.

- Planning and ordinances: updated water plans and drafted new and reviewed existing ordinances pertaining to water and land-resource management.
- Carried out large projects such as watershed protection and MPCA Clean Water Partnerships.
- Retained qualified staff to carry out water and related resource management at the local level.
- Developed and implemented lake-management plans.

BWSR also gives a number of small grants each biennium under the Natural Resources Block Grant umbrella. These are intended to improve capacity for local governments with local water planning. Grants include the following:

- \$27,000 (per year) to the Southeast Minnesota Water Resources Board, a nine-county joint powers board that coordinates implementation of local water plans.
- \$100,000 (per year) to the Minnesota River Joint Powers Board, a 37-county joint powers board that coordinates water plan implementation in the Minnesota River basin.
- \$1.04 million to local governments for the Department of Natural Resources Shoreland Management Program; this funding includes \$50,000 (per year) for the North Shore Management Board, a group of representatives from the counties and major cities along the North Shore of Lake Superior, and \$35,000 (per year) for the St. Louis River Board, which implements the St. Louis River plan and has representatives from Carlton and St. Louis counties and townships.

RECOMMENDED CHANGES

Program funding has not increased since 1994. BWSR supports the state increasing its financial commitment to local implementation of comprehensive local water management plans because of the following points:

- Since the inception of comprehensive local water planning in 1987, the Legislature has added

requirements that sensitive groundwater areas, well head protection, and urban stormwater management be addressed in the plans, and that high priority areas for wetland protection, restoration, and establishment be identified. These new requirements have resulted in increased costs to counties in both the preparation of revised plans and expansion of local implementation activities.

- It is time to take a critical look at the administrative rules for the Comprehensive Local Water Planning Program. With 20 years of experience, and with more and more counties connecting water planning with comprehensive land-use planning, it would be beneficial to evaluate the contents of the plan and the planning process set forth in rule. This assessment should be done in concert with rule revisions to the Metropolitan Surface Water Management Act.
- “Crosscurrents - Managing Water Resources,” (Minnesota Planning, December 1996) identifies expansion of local water planning as one of 10

options to help in addressing the Legislature’s goals and objectives for water resource management in the state.

- State and federal agencies are using comprehensive local water plans as a tool to assist them in prioritizing financial and technical assistance to local units of government. Those plans improve efficiency and effectiveness of state programs.
- The Association of Minnesota Counties, as part of its 1998 policy platform, formally recognized the importance of comprehensive local water planning and supports an increase in the state’s base grant funding to counties to assist in implementation of water resource management efforts.
- Counties and cities need to accept and are accepting the challenge of integrating water resource policies into land-use decision making. The state needs to promote and provide incentive for this effort.

METROPOLITAN SURFACE WATER MANAGEMENT

BACKGROUND

The Metropolitan Surface Water Management Act (MS103B) created a framework for the local application of watershed management principles to the seven-county metropolitan area.

Forty-six watershed management organizations (WMOs) were recognized, with 10 of these having the added authorities of MS103D watershed districts (WDs). By early 2001, there is expected to be 36 WMOs, of which 14 are watershed districts. This shift in governance mechanisms reflects dissolution of joint-powers WMOs, consolidation of WMOs under county authorities, and the establishment of watershed districts by petition.

ACTIVITY

Activity levels of WMOs and WDs vary with local need, local philosophy, division of workload with stakeholders, and geographic breadth. The table below provides the basic operating parameters needed to compare their activities. The Metropolitan Soil and Water Conservation Districts are included to provide context.

WMO and WD Activity in the Seven-County Metropolitan Area (1998 Data)

Entity	Number	Area (sq. miles)	Expenditures
WD	14	1,020	\$10.3 million
WMO	23	1,920	\$1.3 million*
SWCD	7	2,940	\$3.6 million

*Estimated

PLANNING

Statutes addressing Metropolitan Surface Water Planning have been amended and supplemented by rule on several occasions since 1982.

Significant statute amendments and rules (MR8410) were passed between the first and second-generation planning cycles. The 36 WMOs can be categorized as

MS103B.227 subd. 2 "After December 31, 1999, staff of local units of government that are members of the watershed management organization are not eligible to be appointed to the board."

Number of commissioners in 1999: 67; number in 2001: 39

having 19 approved second-generation plans and nine have revised plans under way. The remaining eight are not due for renewal or are likely to become an element within a larger watershed entity.

RECOMMENDATIONS FOR CHANGE

We are approaching the start of the third generation planning cycle and the time is right to incorporate improvements to both statute and rules regarding Metropolitan Surface Water Management. The deletion of language that has been found to inhibit flexibility and needlessly raise the cost of complying with MS103B requirements should also be considered. BWSR is proceeding with rule amendment in calendar year 2001 and statutory changes in the 2001 Legislative session. Following are items for consideration:

Item	Reference	Nature of Change
Local water mgmt. rules (Rule)	MR 8410	Add performance measurements, diminish excessive reference data collection, adapt for use with other local water planning required under MS103B statewide
NPDES phase II regulations (Rule)	MR 8410	Set a minimum threshold to comply with federal mandate and allow for watershed based implementation
Sub-watershed financing (Statute)	MS103B	Incorporate Department of Revenue suggestions to allow creation of financial sub-districts per legislative intent
Financial reporting (Rule)	MS103B, MS103D	Establish minimum criteria for financial reporting using Department of Revenue and State Auditor recommendations
Enforcement (Rule)	MS103B, MS103D	Stipulate minimum consequences for failure to report or to maintain an approved plan

THE NONPOINT ENGINEERING ASSISTANCE PROGRAM

PROGRAM GOAL

To provide engineering assistance for implementation of a variety of nonpoint water quality management practices on private lands

FY 2000-01 STATE FUNDING

\$2.26 million

FY 2000-01 ACCOMPLISHMENTS

- Erosion control: 428
- Feedlot pollution abatement: 307
- Wetland restoration: 207
- Other: 120

BACKGROUND

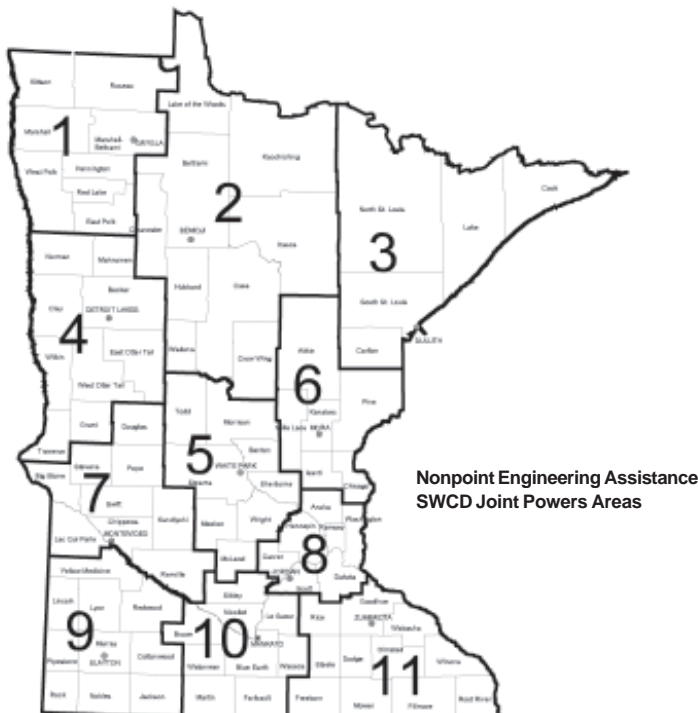
The Nonpoint Engineering Assistance (NPEA) Program provides planning, design, and construction inspection assistance for a variety of nonpoint water quality management practices on private lands state-wide. The types of practices assisted include feedlot runoff and manure storage, vegetated filter strips, streambank and lakeshore erosion control, water and sediment control basins, grassed waterways, terraces, and wetland restorations.

This program is administered through a state-local partnership with Soil and Water Conservation Districts (SWCDs). Eleven joint powers organizations of SWCDs receive grants to employ professional engineers and technicians to assist private landowners in cooperation with member SWCDs and other project partners.

The NPEA program provides engineering assistance for a number of state and federal grant and loan programs, including:

- Ag Best Management Practices (Ag BMP) loan program;
- Clean Water Partnership (CWP) grant and loan programs;
- State Cost-Share program;
- State Feedlot Water Quality Management Cost-Share program;
- federal Environmental Quality Incentives Program (EQIP); and
- EPA Section 319 grants.

The continued dedication of technical assistance capacity from USDA-NRCS suggests that this effort will be more and more critical to implementation of water quality projects in future years.



AREA II MINNESOTA RIVER BASIN PROJECTS, INC.

PROGRAM GOAL

To provide technical and financial assistance to local units of government within Area II for the engineering, land rights acquisition, and construction of floodwater retarding/retention structures within a general plan for floodplain management.

FY 2000-01 STATE FUNDING

\$378,000 general appropriation, matched 25 percent by the nine member counties for a biennial budget of about \$504,000.

ADDITIONAL FUNDING BEING SOUGHT

- \$500,000 general appropriation for floodwater retention projects
- \$1,375,000 bonding for Lazarus Creek Floodwater Control Project, Yellow Medicine County (design complete and permits in hand)

FY 2000-01 CONSTRUCTED PROJECTS

- 6 road retentions
- 4 dry dam structures
- 2 wetland restorations, partnering with U.S. Fish & Wildlife Service
- 6 small dam repair/reconstructions

FY 2000-01 PROJECTS DESIGNED

- 2 small dam repair/reconstructions
- 5 dry dam structures
- 10 road retentions

Area II Minnesota River Basin Projects, Inc., a grant-in-aid program administered by BWSR, aims to reduce flooding problems in the Minnesota River basin in Southwestern Minnesota, while also providing water quality and wildlife benefits. The joint powers organization was created in 1978 and consists of the following member counties: Brown, Cottonwood, Lac qui Parle, Lincoln, Lyon, Murray, Pipestone, Redwood, and Yellow Medicine.

Area II focuses its efforts on flood damage reduction projects including traditional dam structures and the downsizing of culverts and bridges to create temporary floodpools which meter out the floodflows. The FY 2000-01 biennium saw Area II's success at constructing

several projects and the design of many more that await construction within the next biennium.

Challenges faced by Area II centers primarily on funding. The annual appropriations provide for office administration of the three staff, design services, and soils investigation/testing, with a small percentage remaining for the construction of projects. Other funding, such as bonding or general appropriations, fill in that gap and make the Area II program as successful as it is. The 1996 bonding appropriation of \$250,000 and 1998 capital budget appropriation of \$500,000 have been spent/encumbered leaving the organization short of project funding entering the 2001 construction season. It is anticipated that funding will be appropriated during the 2001 Legislative session to further the flood damage reduction progress being made. Land-owner interest remains high despite the lower amount of precipitation and rainfall that has occurred in the recent years. It is expected that the installation of floodwater retarding/retention projects will continue, and will possibly increase, due to concerns raised by the continued tiling practices on agricultural grounds in this region of the state. Area II's continued success will depend, in part, on its ability to recognize and integrate water quality in its strategic plan and day-to-day decision-making.

During the biennium, the Area II staff engineer retired and left a vacancy that was difficult to fill due to experience in hydrology and hydraulics required to perform the design duties. In March 2000, Bolton & Menk, Inc. was hired to perform design and construction oversight. This has developed into a positive working relationship; the increased productivity is reflected in the column at the left.

BWSR provides program oversight of the Area II program in the areas of annual and long-range planning, grant administration, and lobbying assistance for project funding. The Area II board of directors, comprised of two county commissioners from each member county, meets monthly with quarterly meetings held at rotating county seats. An annual legislative breakfast in December updates member counties, state agencies, and legislators of Area II's activities and successes.

OUTCOMES

BACKGROUND

As part of its mission to assist local governments to manage and conserve their water and soil resources, the Minnesota Board of Water and Soil Resources funnels state dollars to local government to carry out a variety of natural resource projects and planning functions.

While these funds are used to put projects such as erosion control, water quality improvement practices, and easements on the ground, there is an increasing need to measure the benefits and determine the effectiveness of state spending. Two years of data (1998 and 1999) collected through a new reporting system, administered by BWSR and called the Local Government Annual Reporting System—or LARS for short, gives a picture of the outcomes of the funded projects for pollution reduction in terms of soil saved, sediment reduction, and phosphorus reduction.

Measuring outcomes is an important part of BWSR’s enterprise. BWSR began to see more of an emphasis on outcomes during the Carlson administration; Gov. Ventura’s Big Plan also places a priority on accountability.

In 1996, BWSR, with the cooperation of the Minnesota Pollution Control Agency, the University of Minnesota, and other agencies, started to develop the computerized reporting system LARS. The system calculates pollution reduction variables according to data that local units of government gather in the field. LARS can do both project reporting and financial reporting.

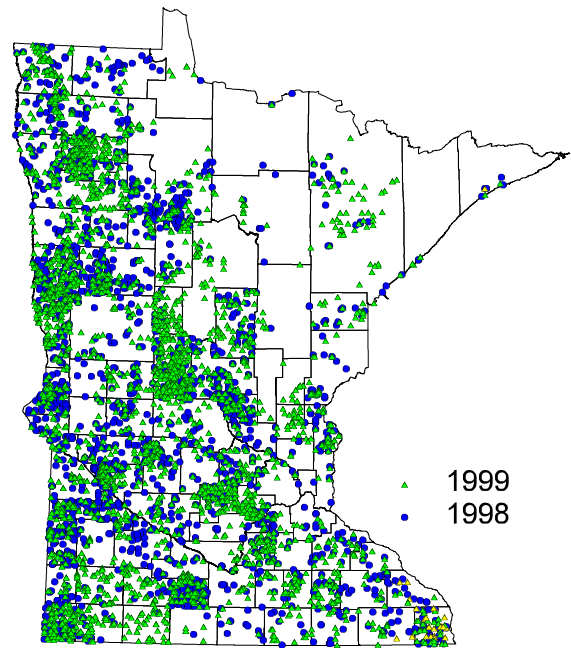
For the first time in the history of the soil and water conservation movement, BWSR is able to estimate statewide the pollution reduction resulting from state-funded conservation programs. LARS calculates the reduction of sediment and phosphorus entering our lakes, rivers, streams, and wetlands. That’s important since phosphorus and sediment are considered the two greatest threats to surface water quality in Minnesota.

Experts point out that soil erosion contributes to lower yields and higher fertilizer requirements; sedimentation clogs rivers, lakes, and wetlands; and phosphorus is the primary pollutant associated with eutrophication, where excess nutrients cause the proliferation of algae and aquatic vegetation in bodies of water.

The effort recorded through LARS demonstrates both the magnitude of the number of projects and the tremendous water quality benefit that results from those projects.

LARS SNAPSHOT

1998-99 LAND AND WATER TREATMENT PROJECTS

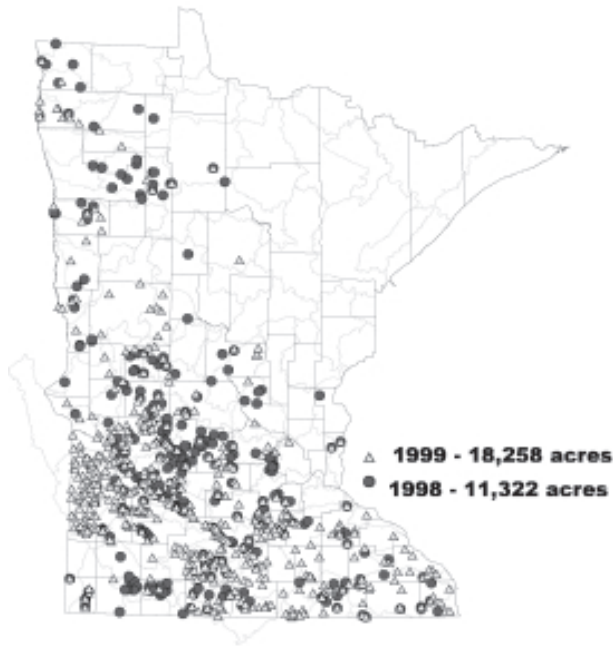


1998-99 Land & Water Treatment Summary

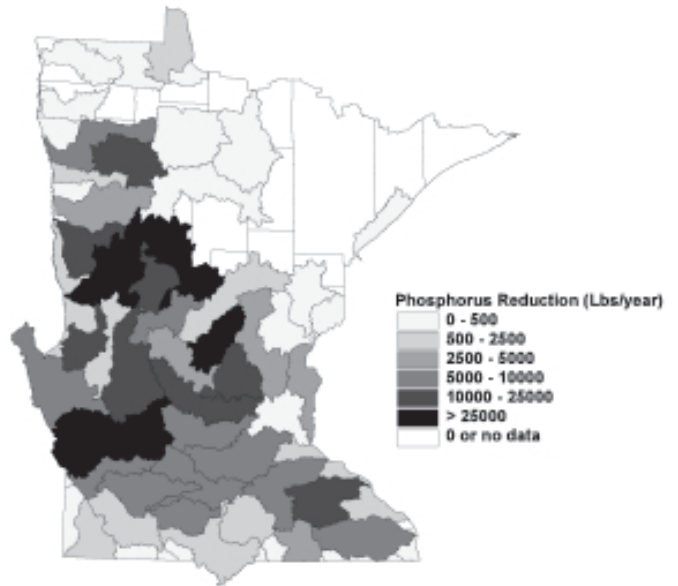
Total projects	5,986
Total cost:	\$26.1 million
State cost	\$10.7 million
Occupier cost	\$8.3 million
Local government unit cost	\$4.2 million
Federal government cost	\$2.6 million
Other cost	\$.3 million

Of those projects, more than 4,000 were analyzed with pollution reduction calculations. The soil loss reduction was calculated at 777,000 tons/year; sediment reduction was 166,000 tons/year; and phosphorus reduction was 438,000 pounds/year.

1998-99 EASEMENTS



1998-99 LAND AND WATER TREATMENT PROJECTS AND EASEMENTS PHOSPHORUS REDUCTION BY MAJOR WATERSHED



This map illustrates one of the benefits of land and water treatment projects and easements put in place in 1998-99 through local units of government. The benefit is the reduction of phosphorus.

1998-99 Easement Summary

Total easements with payments	991
Easement payments	\$30.2 million
Practice payments	\$4.5 million

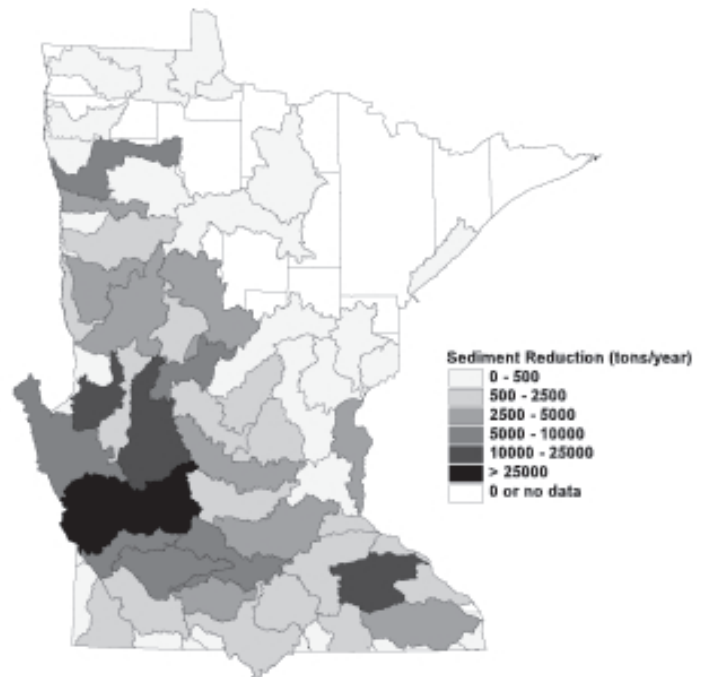
Of the total projects, 445 easements were analyzed with pollution reduction calculations. The soil loss reduction was calculated at 176,000 tons/year; sediment reduction was 61,000 tons/year; and phosphorus reduction was 77,000 pounds/year.

1998-99 LWP Education Projects

1998 total participants	967,000
1999 total participants	948,000

Local governments play a key role in educating citizens on a variety of natural resources issues. Education projects include education fairs, newsletters, training workshops, open houses, and water- and soil-testing days.

1998-99 LAND AND WATER TREATMENT PROJECTS AND EASEMENTS SEDIMENT REDUCTION BY MAJOR WATERSHED



This map illustrates one of the benefits of land and water treatment and easement projects put in place in 1998-99 through local units of government. The benefit is the reduction of sediment.

ONE-TIME & GENERAL SERVICES GRANTS

ONE-TIME GRANTS

Each biennium, BWSR receives a number of one-time grants. Often, these are pilot projects, with further funding dependant on the success of the first endeavor; sometimes they answer immediate and unexpected needs. During FY 2000-01, BWSR received one-time grants totaling about \$3 million for the following:

- \$200,000 for the Red River Basin Board for administrative costs, contracting for inventories, facilitation of discussion on water-policy issues, and preparing and finalizing an international basinwide framework plan for goals in water quality and quantity in a management strategy. This grant requires equivalent funding commitments from North Dakota, South Dakota, and Manitoba. The challenge is to continue funding for the next two years that will meet Minnesota's obligation to the international effort.
- \$2.65 million for SWCDs in the Red River Valley for establishment of an agricultural land set-aside cost-share program for counties in Northwestern Minnesota listed in the 1999 Presidential Disaster Declaration.
- \$110,000 for the University of Minnesota Extension to conduct research on living snow fences. These were pass-through funds from the Department of Public Safety.

- \$42,500 for the University of Minnesota Extension to administer project work teams for the development of next generation watershed district plans. These are pass through funds from the Department of Natural Resources for Red River mediation.

GENERAL SERVICES GRANTS

General Services Grants provide each SWCD with funds for the general administration and operation of the district. These grants are intended to provide districts with a certain degree of funding stability. Following is a partial list of how SWCDs use this grant:

- Payroll
- Office-space rental
- Automobile operating expenses
- Postage and utilities
- Supervisors' compensation and expenses

These annual grants average about \$21,800 for each SWCD. To be eligible, each SWCD must provide an approved annual plan, comprehensive plan, and annual report (including financial statement).

General Services Grants are appropriated from the state's general fund at \$4 million per biennium. Other SWCD service grants administered by BWSR are the Nonpoint Engineering Assistance Grant and the RIM Reserve Grant.

OUTSIDE FUNDING

Just as BWSR develops relationships with local governments, it also strives to create partnerships with state groups and federal agencies to enhance local resource management. BWSR’s efforts to leverage outside financial and technical assistance during the FY 2000-01 biennium proved successful once again, bringing in money and commitments of approximately \$50 million.

The bulk of that money is from the federal government through the Conservation Reserve Enhancement Program (CREP). This land set-aside program combines the state Reinvest in Minnesota (RIM) Reserve Program with the federal Conservation Reserve Program (CRP) to remove marginal lands from production. Under CREP, the federal government matches state and local dollars at a ratio of \$2.3 to \$1. The state’s investment of \$20 million for CREP for the FY 2001-02 means that more than \$43 million will be leveraged from the federal government. In connection with the program, the Minnesota Department of Natural Resources funded the hiring of CREP technicians in SWCD office. The technicians provide on-site assistance to landowners with land that might be eligible for CREP. Another portion of the DNR funding went to support staffing of a liaison who coordinates DNR’s role in CREP.

A similar state/federal partnership leveraged almost \$4 million in federal dollars. The RIM Reserve/Wetland Restoration Program (RIM/WRP) partnership provides funding to restore drained wetlands and then places a federal WRP easement on the land; when the WRP easement expires, the land is placed in a permanent RIM Reserve easement.

Grants from the federal North American Wetland Conservation Act (administered by the North American Wetland Conservation Council, or NAWCC) also contributed significantly to BWSR’s outside funding. NAWCC approved \$292,700 during the biennium for BWSR to acquire easements and install practices on certain targeted areas in Minnesota. This brings the total funding NAWCC has awarded to BWSR to approximately \$2.5 million since the act became law in 1991.

BWSR also received \$371,874 in federal Environmental Protection Agency (EPA) grants (called “319” grants

Leveraged Funding & Misc. Grants	
Program or Funder	Amount
CREP (USDA)	\$43.8 million
WRP (USDA)	\$4 million
DNR	\$600,000
NAWCA (USFWS)	\$292,700
319 (EPA)	\$371,874
EPA	\$80,000
Ducks Unlimited	\$61,000
FEMA	\$59,355
McKnight Foundation	\$25,500
GLC	\$20,700

in reference to the section of law authorizing the grants) during the biennium. These grants were used for a variety of projects, including:

- a tillage transect project, which aims to establish baseline data and monitor trends in the use of crop residue management, and then use that information to reduce soil erosion in the state;
- funding for a lakeshore engineering technician who works with BSWR’s lakeshore engineer and local units of government to educate landowners, design best management practices (BMPs), and provide construction oversight for erosion control and water quality BMPs in Minnesota’s portion of the Lake Superior drainage basin;
- the River Friendly Farmer Program, which publicly recognizes farmers near watercourses who adopt and implement conservation practices to protect and improve water quality;
- a grazing lands project, which helped landowners develop and maintain good grazing systems and supplied technological support for local resource managers; and

- expansion of the Local Governmental Unit Annual Reporting System (LARS), which tracks pollutant reductions resulting from conservation practices applied to control erosion and runoff. Efforts are under way to develop a GIS/web-based reporting system that is more user-friendly, has greater utility, and addresses nitrogen.

Ducks Unlimited provided funding of \$61,000 to help support BWSR in two ways. Part of the funding was used to reimburse landowners to help pay for the cost of restoring wetlands. The other part went to support additional staff assistance for easement processing and for engineering assistance.

Other federal dollars from EPA awarded during the biennium came to a total of \$80,000. These grants supported the following projects:

- development and printing of *Wetlands of Minnesota*, in conjunction with the University of Minnesota Extension Service, to be used by local government units, students, and others needing detailed information about all aspects of Minnesota's wetland resources;
- development of a Wetlands of Minnesota website to build on the publication noted above and to provide a portal to other electronic information on Minnesota's wetlands and related topics;
- refinement of the Minnesota Routine Assessment Method for evaluation of wetland functions, which is used by local government units and others when

comparing wetlands for a variety of planning, regulatory, or educational purposes.

BWSR also received \$59,355 from the Federal Emergency Management Agency (FEMA) to fund research conducted by the University of Minnesota Extension to evaluate plant materials for their viability as snow fences for the purposes of snow control and energy conservation.

BWSR, working in cooperation with the Minnesota River Joint Powers Board, received \$25,500 from the McKnight Foundation to fund a half-time watershed coordinator to manage the land application of CREP. This position is housed in Marshall and serves the 37-county watershed with technical and administrative direction for field offices.

Finally, the Great Lakes Commission (GLC) awarded BWSR \$20,700 as part of a multi-agency initiative to develop a geographic information system (GIS) decision-making tool that will help technical panels in the North Shore area evaluate shoreland erosion control sites.



Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, MN 55107
www.bwsr.state.mn.us
