



Minnesota Board of Water and Soil Resources.
Minutes.

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March 2003

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**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET
LOWER LEVEL CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
MARCH 26, 2003**

BOARD MEMBERS PRESENT: Lee Coe, Darrell Bruggman, Jack Frost, Karen Harder, Ginny Imholte, Char Kahler, Paul Krabbenhoft, Clair Nelson, Victor Ormsby, Dwain Otte, Perry Aasness/Becky Balk, Department of Agriculture (MDA); Wayne Edgerton, Department of Natural Resources (DNR); Dan Wilson, Department of Health (MDH)

BOARD MEMBERS ABSENT: Jerome Deal
Jim Anderson, Minnesota Extension Service (MES)
Lisa Thorvig, Minnesota Pollution Control Agency (MPCA)

STAFF PRESENT: Ron Harnack, Mary Jo Anderson, Ron Struss, Jim Haertel

OTHERS PRESENT:
Pat Huelman, Minnesota Extension Service
Sandy Hooker, Minnesota Association of Townships
John Wells, Minnesota Planning
Brian Watson, MACDE

BWSR Meeting Minutes
March 26, 2003
Page Two

Chair Coe called the meeting to order at 9:00 a.m.

Pledge of Allegiance

- ****
03-20 **Adopt Agenda** – Beltrami County Comprehensive Local Water Plan Update will be removed from the agenda today because a quorum of the subcommittee was not present to review the plan. Moved by Victor Ormsby, seconded by Char Kahler, to approve the agenda as presented. Motion passed on a voice vote.

- ****
03-21 **Minutes of February 26, 2003** – A correction is made on page three under Agency Reports – the last sentence under Dan Wilson's report should read, "Dan stated that many counties will be reducing or eliminating well sealing cost-share grants." Moved by Jack Frost, seconded by Clair Nelson, to approve the minutes of February 26, 2003, as corrected. Motion passed on a voice vote.

Reports

Chair's Report – Chair Coe attended the EQB meeting and reported on action taken regarding nuclear power plant activities.

Executive Director's Report – Ron Harnack reported that Doug Thomas and Tammy McGlone are giving BWSR's budget overview before the Senate Environment, Agriculture and Economic Development Budget Division this morning. Ron stated that no final word yet on board appointments. A number of hearings have been held on HF414, SWCD's bill -- there's controversy regarding the levy issue. A number of meetings have been held regarding wetlands. Ron stated that there is a lot of interest from new legislators regarding water resource issues around the state. Ron attended the MAWD legislative breakfast last week. There was good legislative attendance.

Dispute Resolution Committee (DRC) – Chair Coe referred to the DRC report included in board members' packets. Jim Haertel stated that the appeal involving the Shingle Creek WMO will be heard again later in May. Jim stated that he anticipates resolution and possibly withdrawal of the two appeals in Douglas County (Alexandria). Jim gave an update on the Albert Lea petition for establishment of a watershed district. Jim expects to have a subcommittee meeting in mid-April to review the issue. Ron stated that the subcommittee will make a final recommendation to the full Board.

Wetlands Committee – Darrell Bruggman stated that the Wetlands Committee will meet immediately following the Board meeting today.

BWSR Meeting Minutes
March 26, 2003
Page Three

Cost-Share/Soil Conservation Committee – Dwain Otte reported that the Committee met immediately following the Board meeting on February 26. The Committee heard four recommendations from staff regarding the Wabasha SWCD Feedlot Water Quality Management Grant Program. A letter was sent to the Wabasha SWCD Board, this issue will be brought before the full Board for approval after review by the Wabasha SWCD Board. The Committee also discussed the issue of reducing Joint Powers Boards from eleven to seven.

Education and Public Relations Committee – Paul Krabbenhoft stated that the Education Committee met this morning. Paul introduced Pat Huelman, MES Natural Resources and Environment Capacity Area Leader, and Ron Struss, MES/BWSR Regional Extension Educator. Ron distributed MES's response to program recommendations made by BWSR and gave an overview of what the Education Committee has been working on. Pat thanked BWSR for this coordinated partnering effort with MES. Pat stated that he looks forward to continuing this collaborate effort and is ready to move ahead on this endeavor. Ron Harnack suggested having a short-term plan with a listing of priorities. Wayne Edgerton suggested bringing all agencies together to work on this effort. The Board concurred to have a multi-agency meeting to identify critical issues, share priorities, focus, and what is the next step, where to go from here. Chair Coe thanked Pat Huelman and Ron Struss for their efforts and work on this report.

Paul Krabbenhoft stated that the Committee plans to discuss drainage education issues in the state at an upcoming meeting.

Agency Reports

Becky Balk, representing Department of Agriculture on behalf of Perry Aasness, distributed information on the "Watershed Heroes Conference", June 18-20 in St. Peter. Becky stated that a news release announced a Minnesota biodiesel task force, to advise MDA on biodiesel in Minnesota.

Dan Wilson, Minnesota Department of Health (MDH), reported on two legislative bills that MDH is following; 1) well disclosure in Baytown (Washington County) regarding special well construction areas, focusing on purchaser HF276 (Lipman), SF163 (Wiger). And, 2) septic bill – requirements of client status of septic, combined disclosure with well disclosure – MDH is looking at implications and the issue of data entry; working on this with MPCA, SF503 (Murphy) HF501 (Tinglestad).

BWSR Meeting Minutes
March 26, 2003
Page Four

Wayne Edgerton, Department of Natural Resources (DNR), announced the Big Woods Dairy Tour at Nerstrand State Park. The legislative/agency tour will be held on August 8; board members are invited to attend. Public tours will be held on August 7 and August 9. Wayne reported on the Chronic Wasting Disease (CWD) wild deer testing. Just under 5,000 brain stems were tested, all negative. Additional testing will continue, 40 herds nationally have tested positive for CWD. A legislative bill contains language to make testing mandatory rather than voluntarily, and transfers the testing from DNR to the Board of Animal Health. Wayne reported that Senator Norm Coleman would like a tour of Minnesota to become informed and educated about Farm Bill issues.

Chair Coe called for a break at 10:40 a.m. The meeting reconvened at 10:55 a.m.

Old Business

Budget/Legislative Overview – Ron Harnack stated that with the budget reductions come the need for changes in statutes. Ron distributed the proposed changes and gave an overview of the proposed policy changes as part of the '04-05 budget. Ron distributed proposed Wetland Conservation Act (WCA) amendments, alternative language for HF846/SF656. Discussion followed. Ron anticipates this language or some other streamlining and accountability language will likely be incorporated into the House Transportation Finance bill. The Board concurred with the 1:1.5 mitigation option pending a final decision or position from the Governor's office. Moved by Dwain Otte, seconded by Karen Harder, to support the concept of the alternative language conditioned as proposed. Motion passed on a voice vote.

Ron will keep board members informed as other legislative policy bills move forward.

Overview of the "Minnesota Water Priorities 2003 – 2005" Biennial Report of the Environmental Quality Board – John Wells, EQB Water Planning Director distributed the report; this report has just been submitted to the Governor. John stated that Minnesota Statutes direct the Environmental Quality Board to coordinate state water programs and develop biennial reports on water policy and priorities, including recommendations for funding the identified needs. This report presents the EQB's suggested priorities for the 2004-2005 biennium. Chair Coe thanked John for presenting this informative overview.

BWSR Meeting Minutes
March 26, 2003
Page Five

Advisory Comments

Brian Watson, Minnesota Association of Conservation District Employees (MACDE) reported that the next meeting of MACDE is April 2. Brian stated that the wetland issues discussed today with the proposed amendments are headed in the right direction.

Sandy Hooker, Minnesota Association of Townships (MAT), stated that grant funds and low-interest loans are vital to upgrading septic systems which would clean-up water sources for lakes, streams, and groundwater.

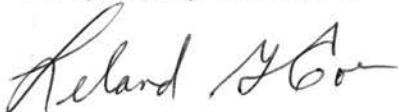
Ginny Imholte, Minnesota Association of Watershed Districts (MAWD), commented on the excellent attendance of legislators at the MAWD legislative breakfast meeting. The MAWD summer tour and training will be held June 19-21 in St. Cloud.

Upcoming Meetings

- Next BWSR meeting, April 23, 2003, in St. Paul.

****** Moved by Dwain Otte, seconded by Victor Ormsby, to adjourn the meeting at
03-23 12:50 p.m. Motion passed on a voice vote.

Respectfully submitted,



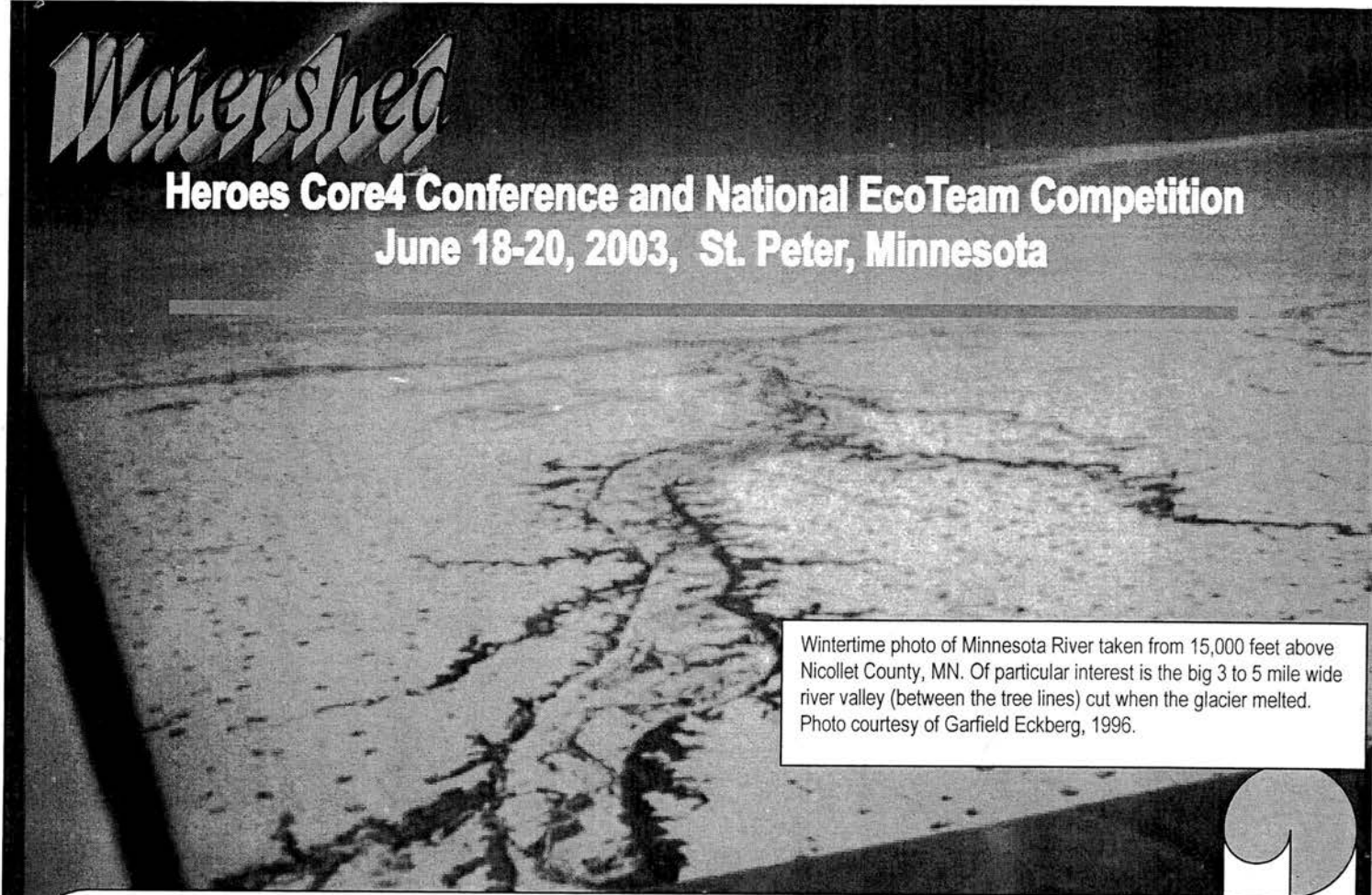
Leland Coe
Chair

BOARD OF WATER AND SOIL RESOURCES
ATTENDANCE ROSTER

	NAME	AFFILIATION	PHONE #
1.	<u>Ardi Moffatt</u>	<u>WSB</u>	<u>763-287-7196</u>
2.	<u>PAT HUECMAN</u>	<u>UNIV OF MN EXTENSION</u>	<u>612-624-9298</u>
3.	<u>John Wells</u>	<u>EQB</u>	<u>651.297.2377</u>
4.	<u>Brian Watson</u>	<u>Dakota SWCD</u>	<u>651-486-7777</u>
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Watershed

Heroes Core4 Conference and National EcoTeam Competition June 18-20, 2003, St. Peter, Minnesota



Wintertime photo of Minnesota River taken from 15,000 feet above Nicollet County, MN. Of particular interest is the big 3 to 5 mile wide river valley (between the tree lines) cut when the glacier melted. Photo courtesy of Garfield Eckberg, 1996.

VISION For The Conference: *Within ten years, water in local, agriculturally impacted watersheds will be fishable and swimmable. Drinking water supplies will be safe. And, farmers who work to voluntarily solve water quality problems will be more profitable, with increased production efficiency, both now and in the future.*

PURPOSES of the Conference:

TO provide the opportunity for a team of water producers (farmers) and water consumers (municipal water suppliers) and other community leaders to interact in a neutral setting and formulate their own systems approaches to solving watershed scale problems through voluntary collective efforts of individual farmers and ranchers.

TO provide teams of Farm Bureau leaders, state staff and local community leaders the latest information related to more efficient use of pesticides and nutrients and their impacts on water quality and soil biology.

TO frame potential water quality problems related to sediment, nitrogen, phosphorus, cryptosporidium, coliform bacteria and pesticides in a scientific perspective and provide practical and profitable ways for solving real problems, if they exist.

TO provide an opportunity for Certified Crop Advisers to obtain continuing education credits.

TO provide a national competition for high school student ecology and science clubs in grades 8-11, provide distance learning opportunities for science and math classes and inspire science projects for middle school and high school students.



June 18-20
2003

Heroes Core4 Conference and National EcoTeam Competition

For more information, contact the Director of Natural Resources at your state Farm Bureau office:

Questions should be directed to AFBF, Jim Porterfield, Phone 847-685-8782. E-mail jimp@fb.org

Who should attend? Your Team, of Course! We accept and encourage individual registrations, but the most beneficial way to participate in this unique conference is to get a team of 4 to 7 people from your watershed together and attend as a team. Include on your team farmers, municipal water supply operators, waste water treatment plant operators, Extension and natural resource specialists, state and county Farm Bureau volunteer leaders and staff, county commissioners, certified crop advisers, and school teachers. It's easy, get the right people together, come up with a name for your team, appoint a team leader and have each of you list your team's name on your form when each of you send in your registration.

Why attend? Upgrade your technical knowledge in work with the, TMDLs and NRCS's Buffer Initiative. Find out and measure in the field what farmers are doing to help eliminate sediment, cryptosporidium, coliform bacteria, pesticides and nutrients from drinking water supplies. Learn how you can work with farmers and watershed partnerships to achieve safe drinking water for municipal customers at less cost for everyone.

Some Accomplishments of Previous Conferences:

Reduced N Use "Information from the corn plots has been very useful. Along with working with our crop consultants, that information has helped us gain the confidence to reduce our nitrogen use from 200 Lbs-N/ac to 125 Lbs-N/ac on 3,000 acres of corn."

Jeff Buresh, Crop Manager, Amana Farms, Inc.

Electronic Proceedings "I have not seen anything like the electronic proceedings in what I've come across to date—I think it offers a great way of sharing material presented at a conference to a much wider audience— you get a face with a name, their brief remarks, and the content of the presentation via power point. Very innovative indeed. I'll pass it on to a few others."

Peyton Robertson, National Oceanic & Atmospheric Administration

Stabl-U In 2002, Stabl-U (a new patented stabilized urea) was produced at a commercial facility for the first time ever in the world, partly as a result of field plots done for this conference. Yields have been equal or better, using 25 to 50% less nitrogen than university recommendations and nitrate concentrations in groundwater have been less than would have been predicted for a given reduction in the amount of nitrogen fertilizer applied.

<http://www.fb.org/programs/waterheroes/2001/update24-2001.pdf>

Recruiting Others "I really enjoyed yet another conference. I'm trying to recruit a team from the IL Corn Growers and Marketing Board for next year. Part of my sales pitch which I deliver with obvious enthusiasm is that I learn something new every year."

Wendell Shauman, Farmer

College Instruction "One thing that I am going to use for sure is a shortened version of the activities that centered around your plots. I am going to have a field practice with my adult students, who are farm owners and operators. We will calibrate, slope, run-off, infiltration etc. That part is real useful and I can make good outdoor class sessions. I am also using the watershed appraisal information when working with the Water Action Volunteers in the watershed that I chair."

Bryce Larson, Lakeshore Technical College, Cleveland WI.

An Internet EcoTeam Competition and National EcoTeam Competition were established as a result of student's efforts.

http://www.fb.org/programs/waterheroes/2002/2003-EcoTeam_Reg_Form_DistNOV.pdf

LPSA The first Light Prestressed Segmented Arch bridge built in the U.S. was constructed for the Watershed Heroes Conference out of small diameter hybrid poplar logs cut from a riparian buffer zone.
http://www.fb.org/programs/waterheroes/conf_6_02/index.php?page_no=1

Involving Teachers "I very much enjoyed the conference last year and certainly plan on attending this year. We are also going to try to get some of our local teachers involved."

Jason Wernimont, Mapleleaf Environmental Management Inc.

For further Information contact the Director of Natural Resources at your state Farm Bureau office, or go to AFBF's web site at

<http://www.fb.org/programs/waterheroes>

Sponsored by
American Farm Bureau Federation, American Farm Bureau Foundation for Agriculture,
Minnesota Farm Bureau Federation, Minnesota Department of Agriculture,
Conservation Technology Information Center

Co-sponsored by the Illinois Farm Bureau, Iowa Farm Bureau Federation,
National Association of Conservation Districts, The American Society of Agronomy

Registration Form

2003 Watershed Heroes Core4 Conference and National EcoTeam Competition
Gustavus Adolphus College Campus, St. Peter, Minnesota

June 18-20
2003

☐ Register me as an Individual and assign me to a team.

☐ Please register me and note that I plan to be part of a team-- (list team's name and your team leader's name)

Team Name _____ Team Leader's Name _____

(Note: Team leaders will be furnished additional information closer to the conference. For further information about why and how to form a team for the meeting, see the web site <http://www.fb.org/programs/waterheroes>

Early Bird Registration by May 15, 2003 (per person)	\$175.00	
Regular Registration Fee May 16- May 31, 2003 (\$200 per person)	\$200.00	
Late Registrations After June 1, (\$250 per person)	\$250.00 after 6/1	
One day Registration Fee \$100 per day (before May 31) \$125 per day (after June 1) Check Preferred day _____ Thursday June 19 or _____ Friday, June 20.	\$100.00 early \$125.00 after 6/1	
Preconference Tour: Wetlands, Rock Inlet, Drainage Depth & Spacing Tour at Waseca, Wednesday, June 18, from 11:00 am to 4:00 pm (includes lunch and transportation)	\$20.00	
Preconference Tour: Special 3-hour workshop on Wednesday June 18 from 1:00 to 4:00 p.m., Evaluating and Designing Riparian Buffers and using NRCS's Visual Stream Assessment Protocol, (includes handout materials)	\$15.00	
Preconference Tour: Tour Cheese Plant, 7-Mile Creek and Red Top Farm Drainage Research on Pesticides and Nitrate, Plus presentation on Manure to Methane to Electricity on Wednesday, June 18, from 1:00 am to 4:00 p.m.	\$10.00	
Earlybird 2-day only Special for Certified Crop Advisers and College Students register by May 15, 2003. Good for June 19 and 20 only.	\$99.00	
Dormitory Housing on Campus Single No Air, ___ Wed ___ Thur ___ Fri nights Single Occupancy with air conditioning, ___ Wed ___ Thur ___ Fri nights	___ #Nights x \$29 ___ #Nights x \$43	

Make Check payable to American Farm Bureau Foundation for Agriculture

TOTAL \$ _____

Cancellation Policy on Registration Fees

Cancel June 1st or Later = No Refund

Cancel by May 31, but elect to still get proceedings and updates = \$55 refund (cost of food).

Cancel by May 31, and elect not to get proceedings and updates = full refund.

Name _____

Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ e-mail _____

Return your Registration Form to:

*American Farm Bureau Foundation for Agriculture
Attn: Jim Porterfield
225 Touhy Ave, Park Ridge, IL 60068*

Dormitory Lodging Available On Campus At Gustavus Adolphus College

Single occupancy \$29.00/night/ person. Single occupancy (with air conditioning) \$43.00/night/ person. Request dorm reservations on this registration form and make check payable to American Farm Bureau Foundation for Agriculture.

Hotel Reservations AmericInn in St. Peter. Located at 700 Minnesota Avenue (Highway 169) Prices range from \$58.90 for one person in a Queen Room to \$66.90 for 2 persons in a room with two beds. Phone 1-507-931-6554.

Overflow Lodging in Mankato, MN. Overflow rooms are also available at the Mankato Holiday Inn Downtown located at 101 East Main in Mankato (about a 15 minute drive south of St. Peter.) The rate is \$63.00 per night plus tax for either a Single or Double. Phone 1-507-345-1234.

For the hotels, please make your own reservations and pay with your own credit card. Mention that you are with the Watershed Heroes Conference when making reservations. Have your credit card ready to guarantee your reservation. Preferred pricing cutoff date for Advanced Reservations is May 1, 2003

Airline Reservations: Please make your own airline reservations and pay for it with your own credit card. You may be able to get a 5 to 10% discount by calling the airline direct and mentioning the reference number. American Airlines direct at 800-433-1790 - general index #14512. United Airlines 800-521-4041 refer to file #549KS. Northwest Airlines 800-328-1111 - refer to file #NMW6V. ATA 877-726-0815 star profile name is "American."

Airport Shuttle Service to St. Peter: From the Minneapolis Airport it is about a 1 hour and 15 minute drive to St. Peter. Also, Mankato Land to Air Co. 1-507-625-3977 offers shuttle service (\$42 round trip) to St. Peter, MN.

Watershed Heroes Core4 Conference and National EcoTeam Competition

June 18-20, 2003

Gustavus Adolphus College, St. Peter, Minnesota

WEDNESDAY, JUNE 18

10:00 am- 7:00 pm	Registration Open: Gustavus Adolphus College's Campus Center on lower level.
12:00 pm-12:30 pm	Program for Student EcoTeams Lunch for Student EcoTeams (Market Place Cafeteria in Campus Center.)
12:30 pm- 1:00 pm	Orientation for Student EcoTeams (Market Place Cafeteria in Campus Center.)
1:00 pm - 5:00 pm	Student EcoTeams Tour Cheese Plant and hear presentation on Dairy (Basic Production, Nutrient Management and Methane to Energy) and take Water Quality and Macro Invertebrate Samples at 7-Mile Creek and tour Red Top Farms Drainage Project.
11:00 am- 4:00 pm	Preconference Tours and Workshops Tour of AgroEcology Farm, Rock Inlets, Wetlands, Controlled Drainage and Tile Depth Research at Waseca. Leaves from Campus Center.
1:00 pm- 4:00 pm	Tour of Cheese Plant and hear presentation on Dairy Nutrient Management and Methane to Energy Production and tour Water Quality Monitoring Project in 7-Mile Creek and Tile Drainage Research at Red Top Farms, leaves from Campus Center.
1:00 pm- 4:00 pm	Workshop Evaluating and Designing Riparian Buffers and using NRCS's Visual Stream Assessment Protocol. Leaves from Campus Center.
5:00 pm	CONFERENCE BEGINS Hot Buffet at Campus Center, Banquet Room A
5:15 pm	Welcome, Al Christopherson, President, Minnesota Farm Bureau Federation; Carol Molnau, Lieutenant Governor of MN (Invited); Sharon Clark, Deputy Commissioner, Minnesota Department of Agriculture.
5:30 pm	Opening Session "Water Quality, Aquaponics, Nutrient Management and Organics: Giving the Customers What They Want from Viet Nam to Oklahoma to Egypt and Beyond." David A. Nuttle. A farm boy from Kansas
7:00 pm	Team Leaders go to field to preview field plots and instructions for field activities.
7:00- 8:15 pm	Eco Bus Lab Water Quality Lab for Students. Chrystal Dunker, Prairie Ecology Center. Bus located in Parking Lot. Building Bridges Over Troubled Watersheds, an Exercise in Teamwork. Bob Shepard, AFBF. Campus Center.
8:15- 9:30 pm	Student groups switch workshops (Eco Bus and Building Bridges Teamwork Exercise).

THURSDAY, JUNE 19

6:30am-5:00 pm	Registration Open (Campus Center, Gustavus Adolphus College) Breakfast on your own (Market Place opens at 6:30 am or have Continental breakfast in Banquet Rooms B&C.)		
7:00-7:45 am	Opening Session: Training and Instructions for Field Activities (Campus Center Banquet Rooms B&C) Jim Porterfield, AFBFA		
8:15- 11:15 am	Everyone participates in the Hands-on Field Activities at Eckberg Farm. (In case of rain the Alternate Plan is to tour 7-Mile Creek Watershed and St. Peter Sewage Treatment Plant Old vs New, Jeff Knutson, Wastewater Foreman, St. Peter Public Works.)		
12:00 pm	LUNCH, at Nicollet County Fairgrounds, Moderator- Mark Jenner		
12:30-1:00 pm	Review of Field Activity Results, Mark Dittrich and Jim Porterfield		
1:00 - 1:30 pm	Transport back to Campus Center		
<u>Session H Better Soils Track</u>		<u>Session I Cleaner Water Track</u>	
1:45 Drainage Depth Affects Output & Water Quality. Wayne Skaggs, NCSU		1:45 Crypto Retention in Filter Strips, Prasanta Kalita, U of IL	
2:25 Drainage in the Lower Mississippi River Valley, Jim Fouss, ARS Baton Rouge, LA		2:25 Fecal Coliform Comparing DNA Identification Methods, Ned Meister, TXFB and Donna Long, TX A&M.	
<u>Session K Cleaner Water Track</u>		<u>Session L Brighter Future Track</u>	
3:10 Biofilters for N in Tile lines, Tom Kaspar ARS		3:10 Decommissioning Manure Lagoons for Profit. Lou Licht, Ecolotree	
3:45 Biofilters for Riparian Zones using Hybrid Poplar Trees, Lou Licht, Ecolotree		3:45 Bio-Juice, Cleaning up Central Beef's Livestock Slaughter Plant Wastes, Citrus Pulp Wastes, and Manure Lagoons. Richard Gray, Scientific Water Solutions	
4:20 Bioreactors for Tile Drainage, Richard Cooke, U of IL		4:20 Clopyralids: Potential Trouble in the Composting Heap. Dan Caldwell, Farm and Compost Operations Washington State University	
		5:00 Recess Evening Free	
		5:10-6:10 pm Students take Test	
		<u>Session M Cleaner Water Track</u>	
		3:10 Streambank Erosion, Satish Gupta, U. of MN	
		3:45 Rapid Stream Assessment with Helicopters and GPS Video, Don Roseboom.	
		4:20 Conservation and the Farm Bill, Speaker to be announced.	

FRIDAY, JUNE 20**5:40 am Buses Depart Campus Center**

6:00-8:00 am Tours Septic Systems Around Lakes, Jim Anderson, University of Minnesota.

Measuring Lake Water Quality with the RUSS System, Cindy Martins, Apprise Technologies, Inc.

8:00 am BREAKFAST at Fair Grounds

9:05 am – 11:35 am Equip. Demos at Fair Grounds

Station 1 Nitro Machine and Toolbar for Sidedressing Corn at 5 to 6.5 feet high. Todd Oschner

Station 2 High Speed Seed Metering Device, Tom Heimbuch, Farmer, Cogswell, ND

Station 3 Eye In Sky Remote Control Airplane for Monitoring Crop Conditions, Zenon Dragan, Saskatoon Saskatchewan,

Station 4 Measuring Soil Compaction Canadian Style, Reed Turner, Agricultural Technology Centre, Alberta, Canada

5:40 am Buses Depart Campus Center

6:00-8:00 am Tours Wetland Ecology and Function, Mary Mueller, Mueller Habitat Restoration.

Compost Socks and Berms for Runoff Control, Rod Tyler Filterxx International LLC.

8:00 am BREAKFAST at Fair Grounds

9:05am – 11:35 am Beneficial Use Manure Demos

Station 5 TOAST Tertiary Oxygen Activated Sludge Treatment, John Petering, Engineering Concepts

Station 6 Polymers, Plantability and Beyond: Changing the Way We Look at Seeds, Planters, Risk Mgt and Water Quality, Mark Gruenewald, Advanced Biological Marketing

Station 7 Biodiesel from Hog Manure, Richard Russell, West Virginia University

Station 8 Rainfall Simulator, Control, Mulch, PAM, Calcium Sulfate, Mercury. Mark Zumwinkle and Mark Dittrich, MDA

11:45 pm

LUNCH Nicollet County Fairgrounds, Moderator, Joe Martin

12:30- 1:00

Speaker, Dave Minar, Adding Value to Milk and Improving Water Quality

1:00-1:15 pm

Transport back to Campus Center

Session Q Local Action Track

1:30 Hogs vs. People, Community Efforts in Donnell Lake Watershed Avert TMDL for Christiana Creek, in Cass County, Michigan Alex Bozymowski, NRCS, Cass County.

2:05 Bio Control of Leafy Spurge, Speaker to be Determined..

Session R Managing Manure

1:30 Zwitterions: Expanding our Knowledge of Manure and Nutrient Mgt. Wendell Owens, International Ag Labs.

2:05 Knowing When Plants Capture Phosphorus, John Kovar, National Soil Tilth Lab

2:00 – 3:00 Tests for Students

3:00 to 4:00 Presentations of Skits by Students

Session S Cleaner Water Track

1:30 Calcium Sulfate for Infiltration to Improve Soil/Water Management, Keith Schlapkohl, Farmer, Stockton, IA

2:05 WaterWorks Crystals for Water Retention for Field Crops. Jim Volkert, WaterWorks America Inc.

Session T Brighter Future Track

2:45 Stabl-U: A New Stabilized Urea Headed for China, Jim Porterfield, American Farm Bureau Foundation for Agriculture.

3:25 Black Soldier Flies for Profitable Manure Management. Craig Sheppard, U of Georgia

Session U Cleaner Water Track

2:45 Polyacrylamides: Potential for Reducing Nutrients & Coliforms in Runoff from Manure Storage Areas in TMDL Watersheds, Bob Sojka, ARS Northwest Irrigation and Soils Research Laboratory

3:25 Regional Coliform TMDL in Southeast Minnesota. Norman Senjem, Minnesota Pollution Control Agency.

Session V Greater Profits Track

2:45 Plant Root Simulator, Ken Greer, Western Ag Innovations.

3:25 High Yield 100 + bu/ac Soybeans, Ray Rawson, Farmer, Farwell, MI

4:00 High Yield 500 Bu/ac Corn, Francis Childs, Farmer, Manchester, IA

4:30 to 5:00 Awards for Students

5:00 pm Adjourn Conference

Exploring educational opportunities for meeting Minnesota's natural resource needs

March 26, 2003

UNIVERSITY OF MINNESOTA

Extension
SERVICE

UM Extension Service's response to program recommendations made by the Minnesota Board of Water and Soil Resources

Introduction

On May 22, 2002, the Education Committee of the Minnesota Board of Water and Soil Resources provided the University of Minnesota Extension Service a report on education program needs in the area of natural resources and the environment. The report was the result of a process that included:

1. Review of existing agency natural resources educational strategies.
2. Written survey completed by state agency and LGU staff.
3. Interactive session of state agency and organization representatives on April 23, 2002.

UM Extension asked the Minnesota Board of Water and Soil Resources to assist with this effort because of its wide involvement with natural resources agencies and organizations.

The report requested UM Extension to provide a written response by August 14, 2002 on how it plans to address the educational issues and approaches outlined in the report. Due to time constraints caused by re-organization efforts, UM Extension asked for an extension to the August 14, 2002 deadline. The request was granted, and a draft response was provided on January 22, 2003 and a final response on March 26, 2003.

UM Response

A team comprised of Jim Anderson, UM Water Resources Center Co-Director, Ron Struss, Natural Resources Regional Extension Educator, and Tom Wegner, Natural Resources Regional Extension Educator, reviewed the Minnesota Board of Water and Soil Resources report and prepared a draft response. The draft was subsequently reviewed and finalized by Pat Huelman, Capacity Area Leader for Natural Resources and Environment, and Mike Schmitt, Capacity Area Leader for Agriculture, Food, and Environment.

The response indicates the extent to which UM Extension is programming in areas rated high propriety in the report. In incidences where UM Extension programming in a high priority area is limited or nonexistent, indication is given as to the potential of future programming.

Response summary:

- UM Extension is programming in the vast majority of natural resources educational areas listed in the report. Interest groups outside of UM Extension can influence programming in these areas by engaging Extension faculty in dialog. Extension welcomes such input.
- UM Extension is willing to explore natural resources educational areas it is not programming in, or is programming in a limited way. Programming in new areas would require additional resources, or re-allocation of resources from other on-going programs.
- The current fiscal situation calls for continuation of dialog to determine how best UM Extension can work with state agencies, local units of government, and non-profits to meet Minnesota's natural resources education needs. UM Extension will initiate contacts.
- UM Extension is working internally and externally to provide support for Outcomes 1 - 7 of *A GreenPrint for Minnesota*, the state plan for environmental education.

Areas of limited involvement

UM Extension is already programming in the vast majority of natural resources educational areas listed in the Minnesota Board of Water and Soil Resources report. The following are areas that UM Extension currently has no, or limited, program involvement. They are highlighted here as areas for further investigation:

- Education programs focused directly on reduced fossil fuel use.
- Provide assessment of the effectiveness of 1st and 2nd generation water plans.
- Land use planning education.
- Cross-organizational leadership training within geographic or resource areas.
- Providing an electronic clearinghouse for natural resources information and data.
- Intentional support of GreenPrint Outcomes 1 – 7.
- Education to create personal responsibility for environmental stewardship.
- Education to bridge the gap between science and public behavior.

UM Extension action steps

In response to the report, UM Extension will take the following steps:

- Circulate this response to state agencies and organizations so those programming in a given area will know who to call for collaboration efforts within UM Extension.
- Further engage state agencies and organizations in dialog concerning educational areas that UM Extension is doing no or limited programming in to determine if resources should be directed towards them.
- Approach state agencies and organizations after the 2003-2005 state budget is passed to determine how best natural resources education can be provided in Minnesota on reduced funding.
- Work internally and externally to provide support for Outcomes 1 – 7 of *A GreenPrint for Minnesota*, the state plan for environmental education.
- Inform a new generation of Minnesotans of programs available through UM Extension.
- Collaborate with DNR on Project Learning Tree, Project Wet, and Project Wild to provide teacher training in conveying complex environmental concepts.

In the Natural Resources and Environment Capacity Area, there are several areas where UM Extension currently has specific and considerable strength:

- **Shoreland Education:** This suite of programs focuses on shorelines to protect water quality, improve habitat, decrease runoff and erosion, and filter nutrients while meeting the shoreland owner's recreational and aesthetic needs.
- **Best Practices for Environmental Field Days:** This program is designed to help youth educators improve the efficiency, effectiveness, and impact of field days to enhance our youth's understanding of the role that natural resources plays in their lives and how they might improve the quality of their environment.
- **Woodland Advisors:** This program helps forest landowners understand the issues, options, and opportunities so they can make well-informed management decisions that will support both local natural resource economics and vibrant, healthy ecosystems.
- **Wastewater Education:** This suite of programs provides education for individuals and communities to design, construct, and maintain viable wastewater solutions that are an effective protection of human health, environmentally sound, economically feasible, and socially acceptable.

Inventory of UM Extension involvement in areas of natural resources education need

Natural resource issue	Identified in:		Extension involvement / interest
	Agency Survey	Agency Session	
Air and energy			
Indoor Air Quality - Radon - Molds - School air quality		X	Extension is involved: UM involved in a host of indoor air quality outreach programs in conjunction with MDH, including radon, molds, and school air quality. See this site for info: http://www.dehs.umn.edu/iaq/ - Bill Angell, 612-624-6786
Reduce fossil fuel use - Policy development - Research - Development tech's - Outreach programs		X	Limited Extension involvement: Energy efficiency is covered in many Extension programs. Specific efforts include: The MN Sustainable Design Guide (building energy efficiency). - Pat Huelman, 612-624-9298 Wind energy - Dick Hemmingson, 612-625-2263 Biomass - Gary Wyatt, 507-375-1275
Surface water and watersheds			
Stream water quality		X	Extension is involved: Volunteer Stream Monitoring Program - Kevin Proescholdt, 612- 624-7460 Ag. BMP Program – erosion, nutrients, manure - Les Everett, 612-625-6751 Shoreland Education Program - Barb Liukkonen 612-625-9256
Wetland protection / restoration		X	Extension is involved: Wetland Health Evaluation Program - Dan Huff, 651-480-7734 Wetlands and agricultural drainage - Gary Sands, 612-625-4756 Wetland vegetation research (campus based) - Susan Glatowitsch, 612-624-3242

Natural resource issue	Identified in:		Extension involvement / interest
	Agency Survey	Agency Session	
Surface water and watersheds (continued)			
Lake water quality	X		Extension is involved: Ag. BMP Program – erosion, nutrients, manure - Les Everett, 612-625-6751 Lake Superior Program – Sea Grant - Cindy Hagley, 218-726-8713 Outdoor Corps - Kent Montgomery, 218-824-1068 Shoreland Education Program - Barb Liukkonen, 612-625-9256 Shoreland Management Website www.shorelandmanagement.org - Barb Liukkonen, 612-625-9256 Water on the Web: http://wow.nrri.umn.edu/wow/ - Cindy Hagley, 218-726-8713
Shoreland habitat management	X		Extension is involved: Shoreland Revegetation Program - Mary Blinkenderfer, 218-327-4616 Shoreland Management Website - Barb Liukkonen, 612-625-9256
Cropland soil mgt., nutrient management and erosion control - Cropland BMPs - Fertilizer and pesticide use - Work with SWCDs	X	X	Extension is involved: Ag. BMP Program – erosion, nutrients, manure - Les Everett, 612-625-6751
Land drainage - Link ed. to research - Drainage and watershed mgt. - Property rights		X	Extension is involved: Agricultural Drainage Program <i>The Drainage Outlet</i> , http://d-outlet.coafes.umn.edu/ - Gary Sands, 612-625-4756 Karst Campaign - Jim Anderson, 612-625-0279
Managing water on a watershed basis		X	Extension is involved: Agricultural Drainage Program - Gary Sands, 612-625-4756 Karst Campaign - Jim Anderson, 612-625-0279 Minnesota River Basin Program - Jim Anderson, 612-625-0279 NEMO (elected official watershed education) - Ron Struss, 651-215-1950 - Cindy Hagley, 218-726-8713 Urban water quality research center (campus based) - Bruce Wilson, 612-625-6770

Natural resource issue	Identified in:		Extension involvement / interest
	Agency Survey	Agency Session	
Surface water and watersheds (continued)			
Citizen stewardship tools for water quality - Tools citizens can use to take action for clean water		X	Extension is involved: Master Gardener Program - Bob Mugaas, 612-374-8434 Minnesota River Educational Initiative - Amy Rager, 320-699-4471 Outdoor Corps - Kent Montgomery, 218-824-1068 Red River Valley Program - Jody Horntvedt, 218-634-1664 River Friendly Farmer Program - Tim Wagar, 507-280-2866 Stormwater ed. assistance for local gov't units - Ron Struss, 651-215-1950 Shoreland Education Program - Barb Liukkonen 612-625-9256
Groundwater and drinking water			
Protect groundwater quality - Source protection - Coordinate with water plans - Coordinate with PCA and MHD programs		X	Extension is involved: Cropland and animal waste nitrogen management - David Schmidt, 612-625-4262 Karst Campaign - Jim Anderson, 612-625-0279 Groundwater Education Materials CD Safe Drinking Water for Minnesotans Program - Barb Liukkonen, 612-625-9256
Land and landowners			
Low impact development		X	Extension is involved: Community design projects, Landscape Arch. Dept. - Mary Vogel, 612-626-7417 - Robert Sykes, 612-625-6091 Urban water quality research center (campus based) - Bruce Wilson, 612-625-6770 NEMO (elected official watershed education) - Ron Struss, 651-215-1950 - Cindy Hagley, 218-726-8713
Native plant community management - Wetlands - Prairie - Shoreland - Forest	X	X	Extension is involved: Shoreland Revegetation Program - Mary Blinkenderfer, 218-327-4616 Wetland Health Evaluation Program - Dan Huff, 651-480-7734 Woodland Advisor Program - Eli Sagor, 218- 879-0850 Life on the Prairie - Karen Ostlie, 507-694-1470

Natural resource issue	Identified in:		Extension involvement / interest
	Agency Survey	Agency Session	
Land and landowners (continued)			
Timber production - Ed linked to research - Production methods - K-12 focus	X	X	Extension is involved: Forest Resources Extension Office - Various staff, (612) 624-3020 Logger and Natural Resources Manager Education - Charlie Blinn, 612-624-3788
Livestock			
Livestock diseases - Hoof and mouth - CWD - BSE		X	Extension is involved: Livestock and Human Health Issues Program http://www.extension.umn.edu/specializations/livestocksystems/livestock.html
Resource conservation and waste management			
Individual septic treatment systems - Ed for inspectors - Ed for decision makers	X	X	Extension is involved: On-site Sewage Treatment Education Program http://www.extension.umn.edu/water/materials.html - Ken Olson, 800-657-3516
Growth in solid waste development - Recycling - Waste reduction		X	Extension is involved: Waste Management Specialist Program - Tom Halbach, 612- 625-3135

Resource planning and management			
Provide assessment of 1 st and 2 nd generation water plans		X	No Extension involvement: Extension is open to exploring involvement in this area. Involvement would depend on available staff expertise, funding, and partnerships. - Jim Anderson, 612-625-0279
Land use planning - Assist groups in interpreting data and trends in resource decision-making. - Assist in determining balance of economic development and environ. protection. - Education for local land use authorities on environ. impacts of land use decisions - Education on economic impacts of land use decisions - Education on impact of urban expansion on agricultural lands	X	X	Limited Extension involvement: Extension is open to expanding involvement in this area. Expanded involvement would depend on available staff expertise, funding, and partnerships. Contact: Tom Wegner, 612-374-8437 Current programs: Community Growth Impacts on Natural Resources - Tom Wegner, 612-374-8437 Effective Decision Making Around Natural Resource Issues - Roger Steinberg, 507-280-2867 NEMO (Nonpoint Source Education for Municipal Officials). Coordination of UM Extension support. - Ron Struss, 651-215-1950
Leadership training within logical geographic or resource areas - Attended by multi LGUs in area - Used to ID critical issues - Used to set measurable goals		X	Limited Extension involvement: This is a logical restructuring of an existing SWCD leadership development program. Extension is open to exploring this concept. Involvement would depend on available staff expertise, funding, and partnerships. - Kim Boyce, 612-374-8420
Provide electronic clearing house for natural resources information and data		X	No Extension involvement: Needs further discussion. Would require a joint partnerships in both coordination and funding.

Natural resource issue	Identified in:		Extension involvement / interest
	Agency Survey	Agency Session	
Environmental education			
Intentional support GreenPrint outcomes 1 – 7		X	Limited Extension involvement: A review of Extension programs will find close adherence to the GreenPrint. However until recently the GreenPrint has not been used intentionally in Extension program development. GreenPrint and Scope and Sequence are now being integrated into Extension programs, especially for youth. - Stephan Carlson, 612-624-8186
Participate in Environmental Education Advisory Board		X	Extension is involved: Current active member. - Stephan Carlson, 612-624-8186
Support local environmental education networks		X	Extension is involved: Environmental Field Day Program - Stephan Carlson, 612-624-8186 Arrowhead WQ Team - Cindy Hagley, 218-726-8713 PICKM Water Quality Team - Barb Liukkonen, 612-625-9256 WaterShed Partners - Ron Struss, 651-215-1950
Train teachers to convey complex environ. concepts		X	Limited Extension involvement: Expansion in programming in these areas can be addressed by Extension’s Environmental Science Education Team. - Amy Rager, 320-669-4471
Create personal responsibility for environ. stewardship		X	
Bridge gap between science and public behavior		X	
Food safety			
Fish consumption advisory		X	Extension is involved: Extension Food Safety Program - Bill Schafer, 612-624-4793
Food irradiation			
Safe food handling and preparation			
Making UM Extension Service known			
Promote existing Extension environmental programs with affiliates		X	Limited Extension involvement: This is an area for expanded activity. - Pat Huelman, 612-624-9298
Need to inform a new generation of programs available from Extension		X	Limited Extension involvement: This is an area for expanded activity. - Amiee Vinard Weideman, 612-624-1759

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MINNESOTA WATER PRIORITIES 2003-2005



A BIENNIAL REPORT OF THE ENVIRONMENTAL QUALITY BOARD

MINNESOTA PLANNING



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Minnesota Planning develops long-range plans for the state, stimulates public participation in Minnesota's future and coordinates public policy among state agencies, the Minnesota Legislature and other units of government.

The Environmental Quality Board, staffed by Minnesota Planning, draws together five citizens and the heads of 10 state agencies that play a vital role in Minnesota's environment and development. The board develops policy, creates long-range plans and reviews proposed projects that would significantly influence Minnesota's environment.

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February 2003

Upon request, copies of Minnesota Water Priorities 2003-2005 will be made available in an alternative format, such as Braille, large print or audio tape. For TTY, contact Minnesota Relay at (800) 627-3529 and ask for Minnesota Planning.

Contents

INTRODUCTION	1
PROTECTING KEY PROGRAM ELEMENTS	1
THE PRIORITIES	1
IMPROVE THE MONITORING AND ASSESSMENT OF MINNESOTA'S WATERS	2
HELP AGRICULTURE PROTECT, RESTORE AND ENHANCE WATER RESOURCES	4
MANAGE WATER FOR GROWTH	7
TAKE NEW STEPS TO PROTECT MINNESOTA'S LAKES	11
SECURE STABLE FINANCING FOR MINNESOTA'S WATERS	15

INTRODUCTION

Minnesota Statutes, Sections 103A.43 and 103B.151, direct the Environmental Quality Board to coordinate state water programs and develop biennial reports on water policy and priorities, including recommendations for funding the identified needs. *Minnesota Water Priorities 2003-05* presents the EQB's suggested priorities for the 2004-05 biennium.

The Environmental Quality Board Water Resources Committee developed a set of water priorities for the biennium based on work done by seven local-state basin teams and EQB member agencies. An extensive public comment period was provided for people representing interests across the state. The committee changed the priorities to reflect those comments and put forth five for EQB consideration. These were approved by the board in June 2002 and forwarded to the Governor and Commissioner of Finance to inform preparation of the biennial budget.

While many elements must be considered in determining the biennial budget, the priorities are considered a key factor in securing Minnesota's environmental and economic future. The recommendations build upon the existing framework of water programs and in some cases fill gaps inadvertently created by budget cuts of the last decade. Should additional cuts in the state's water programs be necessary, the priorities can aid in making those tough choices.

PROTECTING KEY PROGRAM ELEMENTS

Minnesota's water programs have experienced cutbacks in recent years; further reductions are likely. While budget problems are difficult for every agency, cuts to certain core functions of water protection and management could be detrimental to this highly valued resource. The Environmental Quality Board believes that the following core functions should be protected:

The ability to monitor and understand Minnesota's water resources. This requires an adequate network of water monitoring stations to define ambient quality, record the effects of pollutants, understand pollutant sources, and measure the effectiveness of practices to address problems. It also requires understanding of water availability and the geologic and land use characteristics that profoundly influence and affect water.

Water-related data management and information sharing tools and expertise. These are essential ingredients to capturing the information, linking water quality, availability and land use, and informing decision-makers at every level of government.

Integrity of basic water regulatory programs. The regulatory programs for water quality and availability provide a safety net to ensure basic protection of the resource from those who might not recognize the effects of their actions. They include rule development and standard setting, environmental review, permitting, compliance monitoring, enforcement, outreach and evaluation. These activities provide the backbone of Minnesota's water protection and management system, and must be kept effective.

Principles for a sound water program

People want and expect Minnesota's waters to be clean and plentiful. This requires a solid understanding of the resource, the threats and potential solutions.

Achieving this requires a state water effort that:

- Is transparent and easily understood
- Integrates and coordinates federal, state and local interests
- Makes the link to land use
- Collects sufficient data and interprets it for ready use by decision-makers and citizens
- Involves and empowers local governments and citizens
- Addresses current problems and prevents the emergence of new ones
- Acts in a unified, economical manner

THE PRIORITIES

Minnesota's leaders face a daunting challenge in protecting the environment as they deal with serious budget shortfalls. The following priorities signal where the state has fallen short in past water protection efforts and where a new focus is needed, despite difficult economic times.

The Environmental Quality Board recommends five basic priorities for the coming biennium. They are:

- Improve the monitoring and assessment of Minnesota waters
- Help agriculture protect, restore and enhance water resources
- Manage water for growth
- Take new steps to protect Minnesota lakes
- Secure stable financing

We can't manage what we don't measure. Over a decade after passage of the Ground Water Protection Act we still cannot tell much about trends in nitrate contamination of ground water. And that is just one example. This priority calls for water monitoring initiatives essential for basic support of the water program, including: condition monitoring of ground water to characterize the quality and availability of this source of much of the state's drinking water; geologic atlases and regional hydrogeologic assessments in areas of the state at risk or under pressure; surface water monitoring to inform state efforts to control or manage point and nonpoint sources of contamination; and basic information management technology and information systems to integrate, assess and share data collected by a wide range of agencies, local governments and individuals. — *Environmental Quality Board*

IMPROVE THE MONITORING AND ASSESSMENT OF MINNESOTA'S WATERS

Minnesota has developed the most productive farm land in the world. Communities and businesses thrive and the state leads the Midwest in population growth and the country in quality of life. But there are costs for these accomplishments. Water quality has deteriorated and supplies now may begin to limit growth. The changing state of Minnesota's waters must be tracked and understood before thoughtful steps can be taken to protect and manage the resource.

Growing risks to people and ecosystems

The Minnesota Pollution Control Agency identified 1,780 impaired lakes and streams in 2002, an increase of 500 since 1998. This list is based upon sampling only 12 percent of the state's lakes and 5 percent of its streams. The PCA recommends that a minimum of 30 percent of each be routinely monitored to ensure these resources are protected.

Ground water presents a similar picture. A PCA study of over 200 wells in sensitive urban areas across the state found herbicides in more than 60 percent. Their breakdown products — which can be more toxic — were found in 95 percent of the wells. Pesticide-contaminated rainfall contributes to the problem, but experts are not sure how much because monitoring efforts were cut back. The PCA no longer tests for herbicides in urban areas due to budget cuts.

The concern is not just with pesticides. Volatile organic compounds, usually from industrial or household products, occur in a high percentage of water samples from industrial and older residential areas. The extent of contamination statewide is unknown. Equally troubling is the presence of pharmaceuticals, growth hormones, endocrine disrupters, antibiotics and other household chemicals in the state's waters.

Certain chemicals in water put people and ecosystems at risk. Every fish has some amount of mercury. Some also have polychlorinated biphenyls, dioxins and polybrominated diphenyl ethers. The number of Minnesota waters with fish consumption

advice goes up every year. And experts are concerned with ecosystem health, as well as public health, with the troubling incidence of frog malformations still unexplained, and gender morbidity prevalent in the Mississippi River's sauger.

Minnesota's water resources are feeling the pressures of growth. The wealth of ground water found under the Twin Cities virtually disappears as one heads northwest along the state's growth corridor. Yet growth plans seldom take into account effects on lake, stream and ground water quality and often fail to consider the availability of drinking water. And while progress has been made in understanding water availability, the state has not systematically identified sustainable resource use goals nor delivered this information to growing communities.

Managing data that state and local units have and data they will be collecting is vital to managing water. Many groups, including state, federal and local agencies, citizen groups and nonprofits collect water data. Coordinating the design, collection, management and use of this data is essential. Basin teams of local and state officials have identified this need throughout the state.

Diminishing support

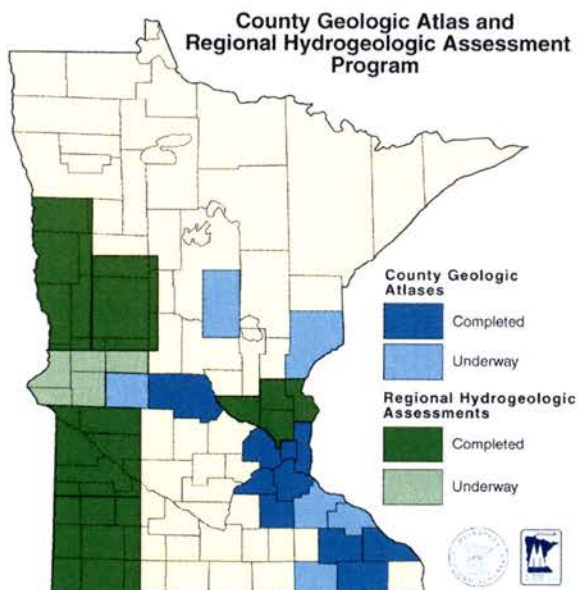
Because of budget constraints, support for water monitoring and assessment has diminished.

Last year the Department of Natural Resources cut back the program that develops county geologic atlases, which provide a foundation for sound local water and land use decisions. The action required the Minnesota Geological Survey to cut its work on atlases and hydrogeologic assessments by 50 percent. This comes at a time when there is greater demand than ever for atlas products to support land use planning, water planning, wellhead protection and other local government activities. In addition, the Pollution Control Agency eliminated its program for monitoring the condition of ground water and cut back its technical assistance program for care of individual sewage treatment systems. The Department of Agriculture also was forced to make cuts in its pesticide monitoring program.

Suggestions for better understanding ground water

A number of steps should be taken to understand and protect ground water:

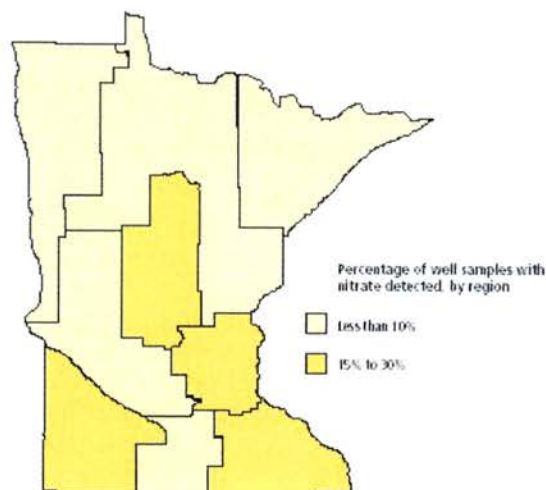
- Establish a statewide ground water condition-monitoring program to sample for pesticides, pesticide degradates, nitrates, pharmaceuticals, growth hormones and other chemicals in urban and agricultural areas.
- Expand the existing Department of Agriculture monitoring network to include sampling statewide.
- Develop a mechanism for incorporating data and information from regulated sites into statewide condition and effectiveness monitoring.
- Provide the PCA and MDA regulatory flexibility for improving condition and effectiveness monitoring at regulated sites.
- Continue to increase communication, education and outreach between state agencies and local ground water managers.
- Develop a statewide plan for ground water use and protection. This should address the collection, storage, interpretation and dissemination of ground water data to define needs in different areas of the state.



Information about geology and hydrogeology helps local government make land use decisions that protect water supplies.

Geologic mapping and the County Well Index database are essential elements in improving monitoring and assessment of Minnesota waters. They are used to determine sensitive areas where agricultural best management practices are needed, to identify ground water influence on lakes, and to manage water for growth. Geologic mapping enables the state to physically assess aquifer distribution, size, sensitivity and the amount of water that can be sustainably withdrawn.

NITRATE CONTAMINATION POSES A GREATER PROBLEM IN CENTRAL AND SOUTHERN AREAS



Notes: "Detected" means nitrate levels exceeding one part per million. Wells were sampled over a five-year period, 1997 through 1999.

Nitrate contamination is both a direct health concern and an indication that other types of pollution may be in the ground water.

Source: Pollution Control Agency

Row crop agriculture takes place on about 40 percent of Minnesota's land surface. This percentage is much higher in the Minnesota and Lower Mississippi River Basins. Animal confinement facilities are also prevalent in these areas. This priority will build on the federal 2002 Farm Security and Rural Improvement Act to enhance the sustainability of Minnesota's agricultural industry. It will target conservation efforts to critical areas, including highly erosive lands, impaired waters that have established total maximum daily load targets for pollutant reduction, source water protection areas, and areas sensitive to ground water contamination. Targeting may require and allow shifts in the allocation of state resources, both to ensure effective use of federal funds and to give attention to other state priorities. Another need is to build on the sensitive area delineations developed by the Department of Natural Resources in response to the Ground Water Protection Act of 1989. The goal is to identify suitable activities and land uses for Minnesota's most vulnerable areas consistent with state ground water and drinking water protection policy.

— *Environmental Quality Board*

HELP AGRICULTURE PROTECT, RESTORE AND ENHANCE WATER RESOURCES

Many areas of the state rely on agriculture to drive their local economies. The state's private working lands — its farms, forests and open space — comprise 78 percent of Minnesota's land base, or roughly 42 million acres. These lands supply people with an abundance of food and forest products as well as — given proper management — clean water, clean air, healthy soil and an array of fish and wildlife and other public environmental benefits.

Minnesota has approximately 23 million acres of cultivated cropland of which 10 million acres have or have the potential for water and wind erosion above tolerable levels. About 9.2 percent of the state's cropland is threatened by water erosion above tolerable soil loss limits, while 42 percent is threatened by wind erosion. In Minnesota, tolerable soil loss limits for cropland generally fall between 3 to 5 tons of soil loss per acre per year.

Soil loss and crop yields

Minnesota's crop yields will drop if erosion continues, according to Gyles Randall, University of Minnesota soil scientist at the Southern Research and Outreach Center at Waseca:

"This is the fourth year in a row of severe erosion. The agricultural community, especially corn and soybean farmers, should be very concerned when severe losses of highly productive soils and impassable gullies continue to develop ... The best tillage system we've observed for keeping erosion in check is soybeans no-tilled into standing corn stalks, especially when combined with strategically placed, sufficiently wide grass waterways ... Most farmers do some major tillage after corn. And with the corn-soybean rotation so prevalent, there's very little protection against erosion. Tremendous gullies develop, and a complacent attitude of "it happens" seems to exist. No-till following corn works very well. We have the machinery to do it, we can get good stands and excellent weed control and yields and it's inexpensive."

See www.extension.umn.edu/newsletters/sustainableagriculture/FD1988.html.

Soil conservation efforts

The Board of Water and Soil Resources teams with federal, state and local agencies to provide technical and financial assistance to land owners and operators. The aid is designed to help land owners and operators apply complex conservation treatments to control erosion and improve the quality of Minnesota's soil resources, protect and improve water quality, enhance fish and wildlife habitat, and manage woodlands and pasturelands. Without this assistance, many land owners would not have the knowledge or financial resources to apply the conservation measures needed, and the environmental benefits that Minnesotans expect from these lands would be lost.

Cost-share and other financial assistance programs help offset the economic costs of providing these benefits. The Department of Agriculture, for example, has provided millions of dollars in low interest loans through the Agricultural Best Management Practices program to help farmers protect Minnesota waters. The loans enable farmers to improve manure management, reduce soil erosion and upgrade rural septic systems. However, technical assistance — the scientific and practical guidance on how to set standards and properly design, engineer, install and maintain conservation practices — is and will continue to be a key to getting conservation applied on the landscape. As funding for the Farm Security and Rural Improvement Act increases over the next five years, technical assistance may become a limiting factor. The BWSR and local soil and water conservation districts will need to be part of solving this assistance gap if the state is to realize the full environmental benefits of the new law.

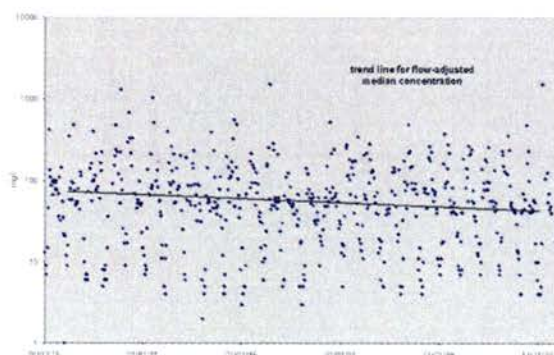
THE MINNESOTA RIVER STORY

In the fall of 1992, Gov. Arne Carlson issued a challenge to make the Minnesota River fishable and swimmable by 2002.

To gauge progress in 2002, the Minnesota Pollution Control Agency and others looked at 30 years of data for several key pollutants. From 1970-2001 significant improvements were made in total suspended solids, biochemical oxygen demand, phosphorus and ammonia.

TSS decreased by an average of 1.5 to 2 percent per year, about 30 to 40 percent over the period. In addition to reductions in discharges from wastewater treatment plants, greater use of conservation tillage practices by farmers also helped cut sediment loads. In the 1980s, about 10 percent of fields met recommended residue levels; by 2000 this figure had risen to 44 percent.

TREND OF DECREASING TSS



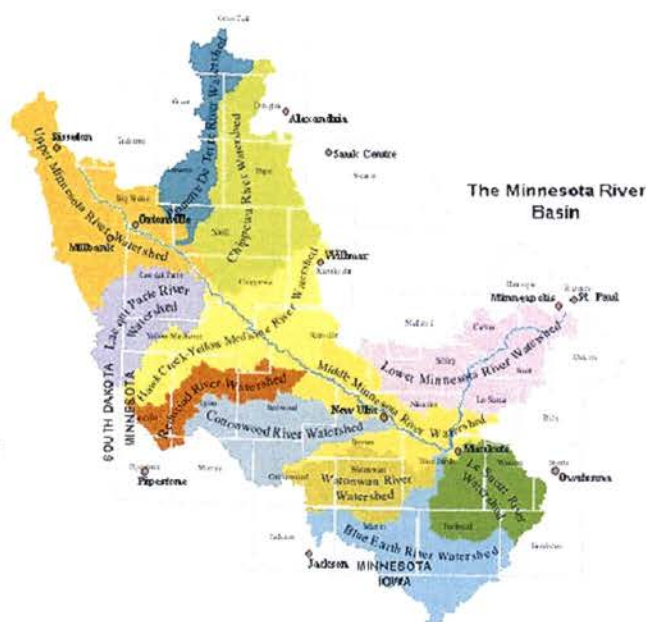
TRENDS INDICATE PROGRESS, BUT MORE NEEDS TO BE DONE

Minnesotans have reason to be optimistic about these trends. However, there is much work to be done to restore the health of the state's namesake river and its tributaries. Some other studies indicate that nitrogen is increasing and that the Minnesota River Basin delivers up to 5 percent of the nation's contribution to the dead zone in the Gulf of Mexico.

Although trends show that several key Minnesota River pollutants are decreasing, during the past 10 years virtually no change has occurred in the diversity and structure of fish communities at selected sites within the basin. *Evaluating Progress of Biological Condition in Streams of the Minnesota River Basin* compares sampling data from the early 1990s to similar samples in 2001. It reveals little or no improvement in stream biological condition as measured by fish community structure. The report states: "In the last decade, it appears that changes in land use and the implementation of best management practices have not yet resulted in an improvement of stream biological condition at select sites."

The phosphorus detergent ban, wastewater treatment plant improvements, and changes in land use practices have led to reductions in phosphorus, ammonia and BOD in the basin. But further reductions are needed before the river attains fishable/swimmable status and water quality improves further downstream on the Mississippi River and in Lake Pepin, in particular. Eighty-nine reaches in the Minnesota River basin are on the PCA's degraded waters list and each major watershed has at least one reach that doesn't meet standards.

Source: www.pca.state.mn.us/programs/indicators/iom.html



A conservation needs workload assessment completed in 2000 by the USDA Natural Resources Conservation Service and the state's 91 soil and water conservation districts estimated that nearly 700 years of staffing were required each year to address soil and water conservation needs with the programs in place at that time. This was about a hundred people more than currently serve in the state. Today, the NRCS estimates that the workload will double under the 2002 Federal Farm Security Act.

If the USDA Environmental Quality Incentive Program is fully funded in the next six years and Minnesota receives its usual proportion of the national appropriation, the state would receive approximately \$75 million during the life of the Farm Security Act.

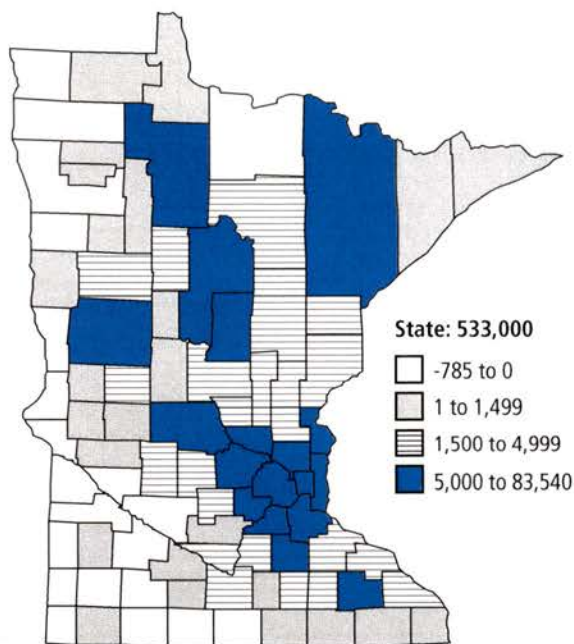
WATER QUALITY AND THE GULF OF MEXICO

Minnesota is one of 23 states implicated in contributing excess nitrogen to the Gulf of Mexico via the Mississippi River. This is the main factor for the expansion of the size and degree of oxygen depletion of the hypoxic zone of the northern Gulf of Mexico, commonly referred to as the dead zone.

POPULATION PROJECTIONS

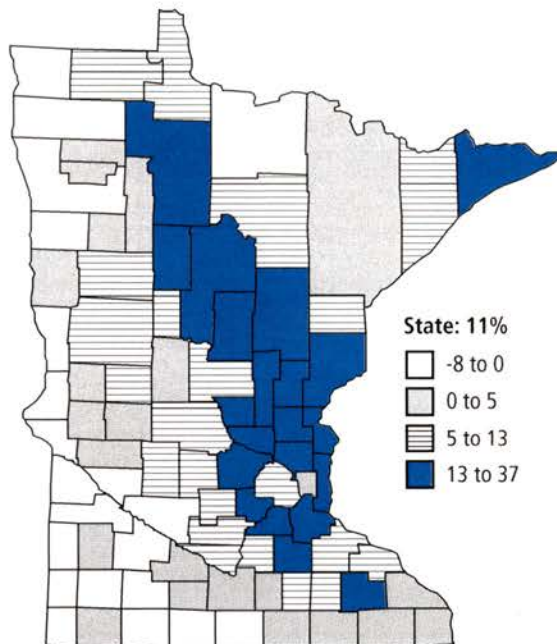
Minnesota's growing population will place new demands on water resources.

Projected population change 2000 to 2010



Source: Minnesota State Demographic Center

Projected population growth rate 2000 to 2010



Source: Minnesota State Demographic Center

Minnesota is growing, but this growth often occurs without thorough consideration of the implications for the environment, particularly water. This priority will ensure that water information and expertise are available to help with growth management decisions. This includes guidelines and targets for water and sewer project funding, financing of water quality and availability monitoring and data management, and other support needed to define concerns and possible limits to growth. A key element is development of aquifer management plans (determining sustainable yields and resource protection needs) for those aquifers at risk from urban growth. Another key element is providing this information to local governments and helping them build and carry out solid comprehensive plans that incorporate the issues from water plans. The priority includes a new federally mandated storm water program that will impact development and protect surface waters from urban storm water runoff. And, it calls for policies and actions to enhance the connections cities make with urban rivers. Finally, support for preparation of a state investment strategy is also included. The strategy will help focus and integrate state investments and will make the state more responsive in meeting local growth management needs. — *Environmental Quality Board*

MANAGE WATER FOR GROWTH

Minnesotans tend to take water for granted. This seems especially true about water supplies. With a few exceptions, most communities believe that the availability of water will never limit their growth.

Limited supplies of water

The rich ground water resources under Minneapolis, three aquifers deep, give way to a single, limited aquifer in the St. Cloud region. There may be plenty of water, but just not where it is convenient, inexpensive or, in some cases, clean.

The map shows the area along Interstate 94 between the Twin Cities and St. Cloud where population growth is projected to expand greatly over the next several decades. Ground water resources are not evenly distributed in this area and the State of Minnesota needs to work with local governments to ensure that water demand does not exceed water availability. As the population expands in this area, so will the demands for competing uses of limited ground water supplies.

To help guide growth, the state should identify the areas where ground water can meet projected demands and protect both ground water and its interconnected surface waters from overuse.

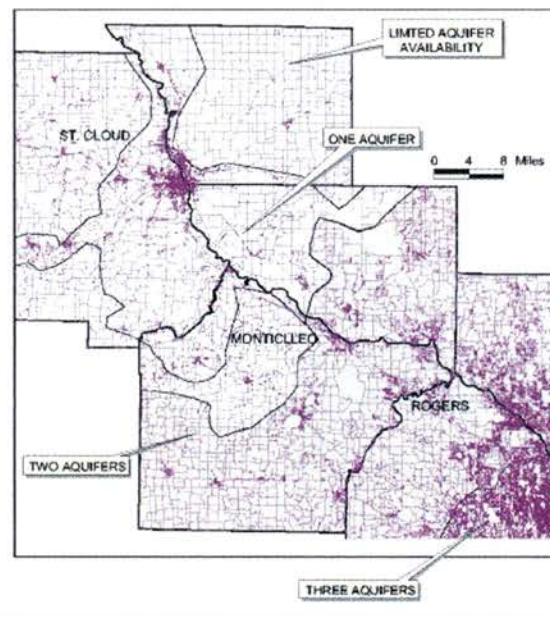
Approximately one-third of the seven-county metropolitan region does not have access to the high-yielding Prairie du Chien-Jordan aquifer. Metropolitan water supply limitations stem from this and other factors, including competition for water between ground water uses and sensitive surface features, like springs and calcarious fens, that may lose water when ground water is withdrawn.

The Information People Need

Making a commitment to delivering sound information to aid those facing complicated growth management decisions is imperative. The state needs to make information about water supplies available to local governments before they make such decisions. In addition, the state should carefully evaluate its own decisions to invest in infrastructure where water resources may not support new demands.

AQUIFERS LIMITED IN MINNESOTA'S GROWTH CORRIDOR

Traveling northwest along the growth corridor takes one from lands rich in ground water to lands with limited supplies.



What do people need to effectively manage water for growth? What information is relevant and what needs to be done to acquire and deliver it to communities? The needs for ground water are to:

- Establish sustainable resource use goals for aquifers so that pumping does not exceed natural recharge rates, or deplete stream flows, wetlands or other surface features.
- Define local geological conditions that affect ground water availability and the natural quality of water.
- Determine the distribution of naturally occurring contaminants such as arsenic, iron and manganese. These affect the amount of treatment needed to meet specific uses for ground water.
- Determine where existing land uses have contaminated ground waters and will limit their use as a source of drinking water.
- Develop a regional database of contaminated sites to help communities and individuals avoid constructing drinking water wells in polluted areas.
- Identify areas where ground water does not meet drinking water standards and prevent the construction of additional private drinking water wells in those aquifers.
- Educate community planners and developers about the limited availability of ground water resources to meet increased needs for public water supplies.
- Identify guidelines for land use change to avoid adverse effects on the quantity and quality of ground water used by local residents.

The growth-related needs for surface water include:

- Determine the portions of rivers and streams where water quality cannot meet federal drinking water regulations.
- Determine areas where surface water and ground water are directly connected and where overuse of one affects the availability of the other.
- Determine the feasibility of using the Mississippi River as a source of drinking water to meet the needs of a regional water supply system.
- Designate impaired surface waters to be cleaned up.

The task of establishing sustainable resource use goals requires estimates of an aquifer's recharge rates and an understanding of its connection to surface waters. This is not an easy job and is rarely attempted in Minnesota. The Minnesota Geological Survey recently completed a pioneering study of Twin Cities aquifer recharge rates based on the principle that ground water and surface water are a single resource. The map presents information that can help people understand a number of important features:

- Areas most sensitive to contamination and in need of concentrated monitoring (blue)
- Areas whose ground water recharges more quickly, which may be more favorable for water supply development (blue)
- Surface water budget (an accounting of inflows and outflows, which is possible because listed recharge values equal stream discharge values)
- Loading of contaminants like nitrates or pesticides
- Sustainable water use

Helping communities grow

Local water planning has complemented land use planning and zoning for over 45 years beginning with the advent of planning by watershed districts in 1955. Since then, the State of Minnesota has routinely looked to local government to help protect and manage water resources. Examples include shoreland and floodplain zoning, metropolitan water management, county comprehensive water planning and wetland conservation.

Today, more than ever, people recognize the importance of water in supporting healthy communities and ecosystems. They also realize how development in a community can affect water quality and availability.

Local governments should take special care to establish and maintain strong connections between comprehensive planning, land use management and comprehensive local water planning. The decisions local governments make about where and how growth occurs, whether agricultural, residential or industrial, can have a profound effect on, and be profoundly affected by, water.

The state, in turn, has a responsibility to provide local governments the best information possible about water availability, quality and vulnerability. Efforts in the southwestern part of the metropolitan area illustrate how this can work.

Wastewater and land use

Land use decisions can have a profound influence on wastewater management. Suggestions to keep costs low while protecting environmental quality include:

- Priority should be given to maintaining and improving existing wastewater treatment systems.
- This should be balanced with the need to support new systems in areas determined to be serious threats to the environment or public health.
- Projects should utilize loans or other mechanisms before any grant funding is considered.

- Grants should be targeted to cost-effective projects that address existing problems for communities with a clear financial need.
- State agencies should provide coordinated, upfront planning and technical assistance for unsewered areas before specific wastewater treatment alternatives are selected and considered for funding.
- The state should not fund projects in unsewered areas unless appropriate plans and the related land use controls are in place and the projects are consistent with local comprehensive plans.
- Future development should pay its fair share of the costs through appropriate sewer access charges and assessments.

EARTH AND WATER

The earth that makes up Minnesota determines where and how water enters the ground, and how it travels and accumulates in the subsurface. Through mapping and analysis, agencies like the Minnesota Geological Survey create a framework that helps people understand the interactions of ground water systems and human activities. Geologic maps are the key to connecting ground water quality to the land and land use practices that affect it.

A GUIDE TO RENEWABLE GROUND WATER RESOURCES TWIN CITIES METROPOLITAN AREA

Understanding the connections between surface and ground water is important in both tapping and protecting water supplies.

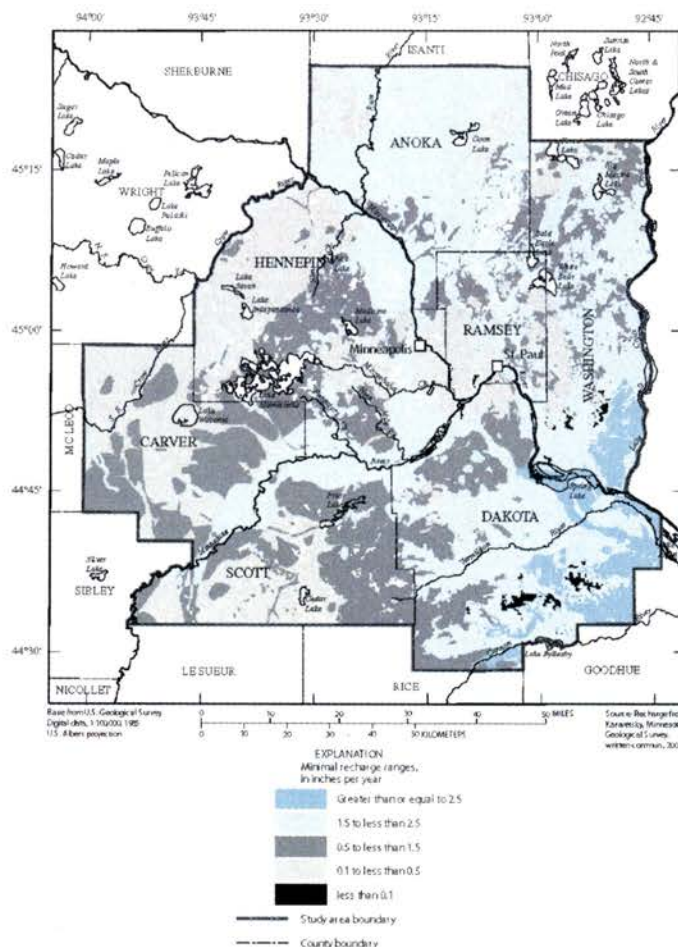


Figure 6. Minimal ground-water recharge based on statistical analyses of watershed characteristics in the Twin Cities metropolitan study area, Minnesota.

Source: Map from Roman Kanivetsky and the Minnesota Geological Survey.

A problem with storm water

Storm water affects Minnesota's lakes, streams and wetlands in two ways. First, rain and snow melt wash pollutants off streets, parking lots, industrial storage areas and lawns, and carry them to nearby waters via ditches, gutters or storm sewers. Second, soil excavation and grading loosens large amounts of soil that can flow or blow into storm drains when handled improperly.

The federal Clean Water Act mandates that states and municipalities implement storm water protection programs. Phase I, implemented in the mid-1990s, applied only to the cities of Minneapolis and St. Paul, certain industrial sites and to construction sites that disturbed greater than five acres. In 2003, Phase II requires an estimated 150 to 250 additional municipalities and other owners of storm water infrastructure and approximately 4,000 additional construction sites (those that disturb between one and five acres of land) to implement programs and practices to control polluted runoff. With Phase II, permit actions alone will increase from about 900 per year to between 4,000 and 5,000 per year.

The Pollution Control Agency is expected to ask the Legislature for authority to collect fees from the newly regulated parties and to require municipalities to fund mandated storm water pollution prevention programs and regulate storm water discharges from land developments.

Spending state dollars wisely

State infrastructure spending is often fragmented and misses opportunities to meet community needs. An investment strategy could help focus and integrate state spending decisions and make the state more responsive to communities.

A strategy could ensure that Minnesota investments:

- Stay true to those things Minnesotans value
- Conserve and protect resources
- Address needs and problems before they become crises
- Make state-level priorities understandable and consistent
- Optimize investment efficiency
- Address statewide issues and concerns that cross boundaries and interests

Minnesota by Design: Options for a State Development Strategy discusses these concepts in greater detail.

State investments can change local decisions. State wastewater infrastructure aid to communities may provide a good case in point. Sometimes the aid may have the unintended consequence of growth that costs taxpayers or ecosystems down the road. It may reward communities that fail to address problems on their own.

MANAGING WATER SUPPLIES IN SOUTHWEST TWIN CITIES METRO

In early 1997, several cities in the southwest portion of the metropolitan area, south of the Minnesota River, realized they were heading for trouble in obtaining water to support growth. The Department of Natural Resources became concerned when lowered ground water levels affected the Savage Fen, a calcareous wetland containing rare plant species. Boiling Springs, another unique surface water feature, and Eagle Creek, a nearby trout stream, also were at risk.

The continued viability of these special natural features relies upon upwelling of calcareous ground water from the Prairie du Chien Aquifer. That aquifer, in turn, is partially supplied by water from the Jordan Aquifer. The complex connection of these two bedrock units and the impact of pumping them for water supply became the primary focus of the Southwest Metro Ground Water Work Group. The group includes the cities of Burnsville, Lakeville, Prior Lake, Savage and Shakopee; the Shakopee Mdewakanton Sioux Community; the DNR, Metropolitan Council, Department of Health, Pollution Control Agency and U.S. Geological Survey; Dakota and Scott counties; the Minnesota Geological Survey and others.

The Southwest group set goals to:

- Develop consensus on a strategy to accommodate projected growth and ensure ground water availability in the area while protecting sensitive environmental features.
- Collect the best data possible with which to make water use decisions.
- Create a long-term water supply management strategy that recognizes the importance of local control and state water law, and builds on the cooperation that exists between communities, the state and others.

Today, the PCA Regional Ground Water Model and core monitoring data are used by regulators and communities to guide water supply planning. A memorandum of understanding and a management plan for cooperative water supply planning also have been developed.

Lakes are perhaps Minnesota's most prized natural resource, and additional state, local and citizen-based efforts to safeguard them are warranted. This priority integrates state water quality protection efforts and provides new, integrated support to local governments and lake interests consistent with local comprehensive plans. There is strong public support for improving lake water quality protection efforts and strengthening the involvement of local governments and citizen groups. — *Environmental Quality Board*

TAKE NEW STEPS TO PROTECT MINNESOTA'S LAKES

Minnesotans take great pride in their lakes. Thirty-six percent of the state's residents — 1.3 million people — bought a fishing license last year and over half say they participate in wildlife watching. Lakes are a major part of both activities. Lakes play a lead role in Minnesota's lore, too, as Lake Wobegon suggests. Yet, for all the talk about how important its lakes are, the state's lake management efforts could be strengthened. The Minnesota Lakes Association puts it this way:

GROWING WITH A RIVER RESOURCE

Communities like Minneapolis, St. Paul, Hastings and Winona are taking steps to celebrate and build their vision of the future around a healthy urban river. Still, two-thirds of those responding to an informal survey of river interests believe that cities do not take full advantage of the rivers that flow through them.

One goal of the Urban Rivers Act of 2001 is to build or rebuild the connections between downtowns, adjacent neighborhoods and their waterfronts. Another is to protect and enhance the natural environment that provides the basis for much of a river's value to a community. Understanding how to integrate these needs is the ultimate challenge of sustainable urban river management.

The state needs to adopt more sustainable approaches to the management of urban riverfronts. Although current law and practice make good efforts to preserve natural resources, there is much less effort to encourage sustainable economic and community development.

Source: *Connecting with Minnesota's Urban Rivers: Helping Cities Make Sustainable Choices for the Future*. Minnesota Planning, 2002.

Minnesota **Milestones**

-----► Measures that matter

WATER QUALITY IN LAKES

More and more Minnesota lakes have been found unsuitable for swimming in recent years.

Percentage of monitored lakes fit for swimming

	Lakes suitable for swimming
1994	79%
1996	68%
1998	65%
2000	64%

In 2000, the most recent year for which data is available, the figures are based on monitoring 53 percent of the state's lake acres, or about 12 percent of its lakes, for swimmability. See www.mnplan.state.mn.us/mm/indicator.html?ld=64.

Unfortunately, there is no single government agency in Minnesota responsible for coordinating or overseeing management of the more than 10,000 lakes scattered throughout the state. Instead, these precious natural resources are managed by four different state agencies—the Department of Natural Resources, the Board of Water and Soil Resources, the Pollution Control Agency and the Department of Health—which often results in inconsistent regulation and enforcement. Consequently, responsibility for lake management and protection frequently falls to local lake associations, many of which lack the information, tools or resources necessary to formulate and implement effective lake management plans. (See <http://mnlakes.org>.)

Minnesota's lakes are in danger of being loved to death. Many of the state's larger lakes have several tiers of development. Smaller, more vulnerable, lakes are also routinely subject to the pressures of shoreland development. And, whether because of

overdevelopment, overuse, spread of exotic species or pollution, the quality of Minnesota's lakes and the recreational experiences they offer are threatened.

So far, the Pollution Control Agency puts the number of impaired Minnesota lakes at 911. Some 87 percent are due to high levels of mercury contamination -- not an easy "fix." The agency judges that it will clean up only one of these in the next eight years.

On the positive side, methylmercury concentrations in Minnesota fish appear to have declined about 12 percent over the last 10 years. Minnesota's ban on mercury in batteries and paint, and the development of statewide contamination strategies, voluntary reduction agreements and statewide reduction goals all appear to have helped. While statewide gains are notable, 70 to 90 percent of mercury comes from air pollution sources located outside the state. Further reductions in Minnesota waters will require continued fish and water monitoring and emissions cuts from coal-fired power plants both in and outside Minnesota.

WASTEWATER TREATMENT

Under the federal Clean Water Act and Minnesota law, the Pollution Control Agency is responsible for monitoring and regulating water pollution from point sources -- those domestic and industrial facilities that discharge wastewater to surface water or land at distinct points. Since the mid-1980s, the PCA has sought resources to address the growing number of facilities without current permits. A 2002 audit by the Legislative Auditor indicated a number of deficiencies in the point source program. The PCA developed and implemented a plan to address permit backlog, inspection and enforcement issues in response to the audit. (A summary can be found at www.pca.state.mn.us/publications/reports/water-pointsourceplan.pdf.)

The PCA plan still will not meet federal goals for major facility permit backlogs (no more than 10 percent) or for minor facilities (no more than 25 percent currently, and no more than 10 percent in 2004) with the current staffing level. Further, the audit identified barriers to timely permit issuance, such as permit-by-permit debates on phosphorus discharge limits and controls.

The PCA will report to the Legislature in early 2003 with its recommendations.

The remaining 13 percent of impaired lakes are due to a variety of contamination problems, ranging from nutrient rich runoff to PCBs to dioxins. The PCA believes that the state should be able to clean up about 40 percent of these in the next eight years.

The PCA regularly collects and analyzes information on more than 800 lakes that have a high ecological and economic value in the state. As more information is gathered, more concerns surface.

Lakes that do not support designated uses are candidates for diagnostic studies under the Citizens Lake Monitoring Program, Lake Assessment Program or Clean Water Partnership Program. Local sponsors must express interest in lake restoration.

Mercury and the environment

Mercury poses a health threat when transformed in the natural environment into methylmercury. Methylmercury bioaccumulates in fish, including Minnesota's popular sportfish -- bass, walleye and northern pike. Mercury contaminated fish are unsafe for human consumption and those who eat a lot of fish for cultural, social or economic reasons face higher health risks. Health risks related to mercury are not limited to humans. Fish-eating wildlife such as loons have negative developmental effects due to methylmercury.

Mercury in northeastern Minnesota lakes comes from natural sources such as volcanos and the weathering of rocks, production of chlorine or thermometers, and from burning fossil fuels and smelting metals. Because so much is beyond easy control, Minnesotans must take special precautions to curb mercury use and releases. See www.pca.state.mn.us/hot/legislature/reports/2002/mercury-02.pdf.

Lake associations

Minnesota is fortunate to have a strong network of lake associations. Many people, including resource managers, believe that the most effective lake management will come from these associations, that is, from the "bottom up." They prefer the locally based method of organization for lake management because lake problems and their solutions are so site-specific.

The state has a great opportunity to work cooperatively with lake associations and their county coalitions. Stakeholders need tools to conduct routine monitoring of lake conditions; to collect, analyze and store data gathered through monitoring; to assist in identifying water quality goals; and to assist in identifying and implementing actions to achieve water quality goals.

Citizens help take stock of the resource

The Citizen Lake Monitoring Program relies on volunteer efforts of citizens statewide who collect water quality data on lakes. Data from the CLMP is entered into the U.S. Environmental Protection Agency's water quality database along with water quality data collected by the PCA. The data helps scientists detect trends in water quality. For many lakes, CLMP data is the only water quality information available.

During the 2001 monitoring season, volunteers monitored 857 lakes, taking 14,765 individual Secchi disk readings, helping determine a lake's overall health and alerting the PCA to problem lakes and contaminants. New pilots will include chemical tests, further increasing the state's monitoring capabilities.

Unifying state assistance

In 2001, the state established a pilot Local Solutions Alliance to unify state efforts to help communities wrestling with growth problems. The alliance brings technical experts and assistance from a range of state and federal agencies together with communities. It proves that more can be done with less when people work together. The state could offer the same kind of integrated service to interested lake associations and local

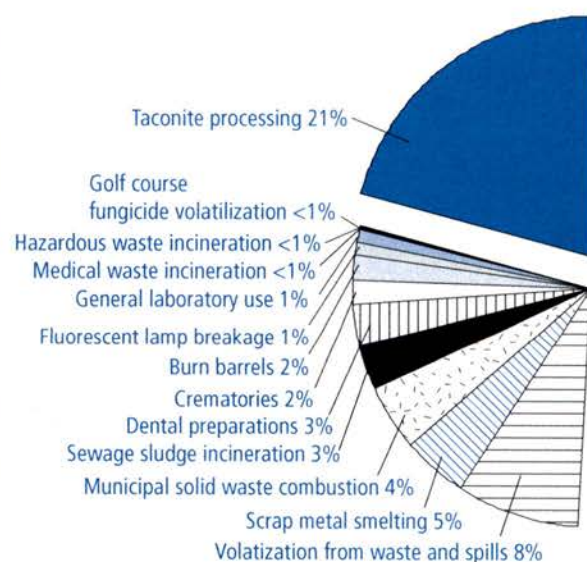
governments. Four agencies may have lake management duties, but there is no reason they cannot work as one.

Phosphorus and lake quality

Up to 90 percent of lakes are impaired by excess nutrients, especially phosphorus, in some agricultural areas of Minnesota. Phosphorus is the primary pollutant associated with the eutrophication of surface waters, a condition in which excess nutrients cause proliferation of algae and aquatic vegetation. Both point sources, municipal and industrial wastewater discharges, and nonpoint sources, urban and agricultural runoff, contribute excess phosphorus loads to Minnesota's waters. Excess phosphorus causes nuisance algal blooms and reduced transparency, making waters unsuitable for swimming, fishing or other activities. It also affects downstream reaches, making it a pollutant of regional, statewide and national concern. The PCA has developed a comprehensive phosphorus strategy with seven action steps to reduce and control phosphorus. New resources necessary to implement the strategy include data collection and assessment, new basin management specifically for phosphorus, and continued regulatory review of the effectiveness of wastewater and manure application rules. See <http://www.pca.state.mn.us/hot/legislature/factsheets/phosphorus-00.pdf>.

ESTIMATED STATEWIDE MERCURY RELEASES BY SOURCE, FOR YEAR 2000

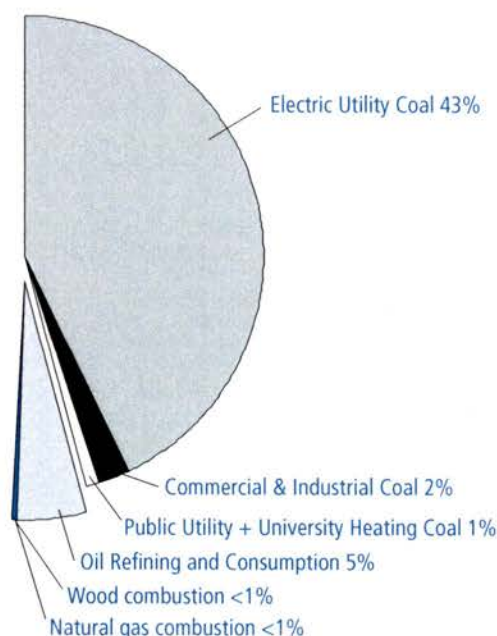
Taconite processing 21%



Product use 28%

Source: Minnesota Pollution Control Agency

Energy production 51%



DISHWASHING RECONSIDERED

A 1993 study prepared for the Minnesota Pollution Control Agency estimated that automatic dishwasher detergents contributed 8 to 9 percent of the total phosphorus contained in the water coming into the 11 Metropolitan Wastewater Treatment Plants. Nearly all dishwasher detergents sold in Minnesota contain phosphorous. The total content of phosphorus in many brand-name dishwasher soaps ranges from 1.6 to 9 percent. Yet phosphorus-free detergents are commonly available in the marketplace.

Ground water and lakes

Most people understand that lakes receive water from precipitation and runoff, but ground water also often makes a contribution. The Carnelian-Marine Watershed District asked the Minnesota Geological Survey to investigate the influence of ground water on the water quality of major lakes in the district. The study built on geologic mapping created for the Washington County Geologic Atlas to identify potential flow paths for ground water, and to connect land areas and land use to ground water recharge and discharge into lakes. By measuring ground water flow in and out of lakes, and analyzing the quality of that water, it was possible to identify the sources of nitrogen and phosphorous and effective techniques to manage them. These techniques are widely applicable to Minnesota lakes and are particularly efficient when done in conjunction with geologic mapping.

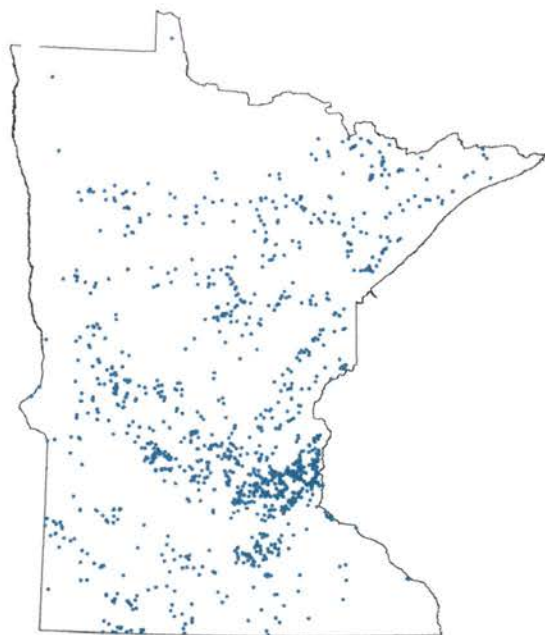
Advice on eating fish

The Minnesota Department of Health has issued advice for eating locally caught fish since the 1970s. The number of waters with fish consumption advice goes up every year. This increase is due to additional waters being monitored. Every fish has some amount of mercury. Fish from over 1,000 Minnesota waters have been tested for contaminants. Due to the presence of mercury, consumption advice is warranted for all waters tested, at least for women of childbearing years and children. Consumption advice for tested waters is listed in tables on the Minnesota Department of Health Web site (see www.health.state.mn.us/divs/eh/fish/index.html) and in DNR lake survey reports (see www.dnr.state.mn.us/lakefind/surveys.html).

Mercury is a concern in fish from all waters of the state. The concentration in fish is going up in some lakes, down in some and staying the same in others. Polychlorinated biphenyls are at levels of human health concern mainly in fish from the major rivers and Lake Superior. Levels of PCBs in the state appear to be declining. For example, a recent Environmental Protection Agency report showed that PCB levels have significantly declined in fish from the Mississippi River. As PCB levels go down fish advisories for PCBs are being replaced by advisories for mercury.

Other contaminants, such as dioxins and polybrominated diphenyl ethers, are emerging as a concern in fish. During the last decade, PBDEs have been increasing in breast milk in the U.S. Fish consumption is a major pathway of human exposure to these contaminants.

MINNESOTA LAKES IMPAIRED FOR SWIMMING - 2002



The farther south one travels in Minnesota the more likely a lake is to be impaired. Map based on sampling 12 percent of the state's lakes.

Source: Pollution Control Agency

A number of state water programs receive funding through various fees or federal grants, while others are supported solely by the general fund. This priority will examine fee-based opportunities to provide reliable, inflation-adjusted support to those functions that comprise the foundation for the state program. First, this should include support for the state's water quality and availability permit programs. Second, it should consider ways to provide a baseline of support for ambient water monitoring and assessment efforts. A key principle will be to make the system sufficiently broad-based so that fees can provide reliable support to the activities of a range of agencies. This approach is necessary to rebuild important efforts undermined by budget cuts of the last decade, and to ensure that the overall system is balanced in a way that reflects the need, not merely the success of agents at securing money. The approach is unusually important in the water arena, since water management involves a complex network of interrelated activities and programs, with each depending on others for the whole to work. – *Environmental Quality Board*

SECURE STABLE FINANCING FOR MINNESOTA'S WATERS

State and federal governments provided more support to water protection and management activities in Minnesota in 2002 than they did a decade ago. Adjusted for inflation, funding for water activities of the departments of Natural Resources, Health and Agriculture, the Board of Water and Soil Resources and the Pollution Control Agency increased from \$137 million in 1991 and 1992 to \$234 million in 2001 and 2002. This represents an increase of 71 percent over the 10-year period, or an average increase of 7 percent each year. State government spent about \$16 for each person in Minnesota in 1991, and about \$24 for each in 2002. So each Minnesotan "spends" about \$8 a year more today on water programs in these key agencies than a decade ago.

State and federal funding of local government water and sewer projects – mostly low interest loans – grew at about the same pace. The Department of Trade and Economic Development and the Public Facilities Authority spent \$195 million for local governments in 1991 and 1992, and \$337 million in 2001 and 2002, a 73 percent increase over the 10-year period, or a little over 7 percent per year. This increase came despite a decrease in federal and state funding and was due to recycled loan funds and PFA-leveraged bonds.

\$5.21 WATER SUPPLY CONNECTION FEE

To cover the costs of monitoring public water supplies, and to assist in complying with the federal Safe Water Drinking Act, the 1992 Legislature enacted a fee on all service connections to municipal water supplies and supplies operated by rural water districts. The fee was set at \$5.21 annually and has not changed since its creation. Until recently, more money was taken in by the fee than spent, but the fee now fails to raise enough money to cover costs and the surplus will be spent by 2006.

COVERING THE COST OF WASTEWATER

Currently no mechanism generates revenue to fully cover the state's cost of managing wastewater. A user fee based on the costs of wastewater treatment and levied on sewer utility bills and pumping of septic systems could raise as much as \$30 million annually for water quality protection.

Besides the rapidly growing costs of health insurance and increased cost of a more experienced work force, why did most state water agency spending increase? The answer is simple. The Legislature and Congress asked agencies to deliver important new programs to safeguard Minnesota's water resources. These included new state laws for wetland protection, septic tank regulation and feedlot management, and new federal requirements for source water protection, agricultural land conservation, water quality protection and stormwater management. Often the funding associated with these new mandates failed to cover the added costs, and other efforts had to be cut back.

A substantial expansion of federal stormwater management requirements will bring a major challenge to the Pollution Control Agency and the state's local governments in the next several years. In addition, the Federal Farm Security Act of 2001 promises to direct millions of new dollars in conservation assistance to Minnesota farmers, if state and local officials can provide the necessary technical assistance. As noted in discussion of the agriculture priority, the additional staffing needed could be significant. Other activities have failed to keep pace with the need, including water quality and quantity monitoring, geologic atlas development, ground water modeling, aquifer management planning, information systems development and strategic water planning.

State leaders can choose from among several options in considering whether and how to meet these needs, ranging from postponing support, to reallocating funds, to asking those who contribute to the problem or who may otherwise benefit to pay their fair share.

BOATS AND WATER

Increases in boat registration fees or the redirection of unrefunded marine gas tax dollars could become part of the water recreation account, which is used to fund public access, parks and exotic species programs.

If new revenue sources are considered, the Environmental Quality Board suggests that they:

- Be simple and understandable for fee payers and the public
- Ensure revenues come from a wide variety of sources
- Retain a clear link between the revenue source and the programs or activities they fund
- Be fiscally sustainable over time and generate enough revenue to adequately address the need

The sales tax dedication

In 2002, legislators considered a bill to dedicate 3/16ths of 1 percent of the state sales tax to natural resources and create a Conservation Heritage Enhancement Fund. The amount set aside would have been about \$130 million annually. The legislation, which did not pass, also suggested various ways to distribute the funds, but did not include water quality protection among its choices.

A similar initiative, "Half a Cent for Nature," was proposed in fall 2002 by an informal consortium of state agencies. The initiative would either dedicate ½ cent of the existing tax or a new sales tax, raising about \$355 million a year for water programs (including water quality).

Valuing water

Minnesota, like most states, treats its water like a free good. Fees and other charges may cover part of the cost of providing or treating water, but they never include a charge for the resource, itself. Economists argue that this approach to pricing distorts the use people make of the resource. People tend to waste a good that costs them nothing.

The appropriation of water, use of water, discharge of wastewater and pollution of waters from nonpoint runoff or infiltration are currently free "uses" of Minnesota's water resources. The state could send a message to all Minnesotans by establishing a value-based fee on uses such as permitted water appropriations, drinking water connections and wastewater and septic system discharges.

AIR QUALITY FEES KEEP PACE WITH INFLATION

To ensure that air quality program funding keeps up with inflation, the Pollution Control Agency adjusts fees based on the Consumer Price Index. If the CPI for the current year is greater than the CPI in 1989, the air quality fees are adjusted according to the percent increase.

TOP WATER ACCOMPLISHMENTS OF THE 1990s

1. KEEPING PUBLIC WATER SUPPLIES SAFE

Minnesota ranks first in the nation in meeting drinking water standards. The state has 8,300 public water supply systems, the sixth highest in the country. They serve more than 3 million residents. Over the last dozen years, only 380 of more than 2 million samples exceeded a drinking water standard.

2. REDUCING WELL CONTAMINATION

Thanks to provisions of the Ground Water Protection Act of 1989, Minnesota is a national leader in sealing abandoned wells and preventing ground water contamination. Minnesotans have sealed 160,000 of an estimated 750,000 abandoned wells since 1990. In addition, 95 percent of today's new wells comply with state well code requirements, up from 65 percent in 1989.

3. FARMERS CLEANING UP THE MINNESOTA RIVER

The adoption of best management practices by Minnesota River Basin farmers and improvements to wastewater treatment plants helped cut pollution by as much as 30 percent. In addition, farmers signed 2,445 easements, setting aside over 100,000 acres of marginal farm land. The Minnesota River Conservation Reserve Enhancement Program, a joint state-federal land retirement program dedicated to reducing the effects of agriculture on the river's environment, ranks second in the nation in enrolled acres.

4. GEOLOGY MAKING BIG GAINS

In the last decade, Minnesota produced eight county atlases and four regional hydrogeologic assessments, covering 75 percent of the state's residents and 37 percent of its land area. These provide local governments and state agencies essential information for protecting drinking water supplies from improper land and water use.

5. SAVING THE MISSISSIPPI

The year 1996 marked completion of a 10-year, \$331 million sewer separation program for controlling combined sewer overflows into the Mississippi River. The program helped clean up the 72-mile stretch of river that flows through the metropolitan region, as well as vulnerable points downstream, such as Lake Pepin. The project involved pipe separation in more than 21,000 acres of drainage area, and construction of 200 miles of storm sewers and 12 miles of sanitary sewers. The number of overflows has been reduced from an average of once every three days to twice a year.

6. MITIGATING FLOOD DAMAGES

The number of flood-prone buildings in Minnesota has been cut by half, from nearly 20,000 in 1970 to about 10,000 in 2001. The state has removed 1,600 homes from the floodplain. Today, most buildings in Chaska, East Grand Forks, Marshall, Mankato and Rochester are protected to the 500-year flood level. The Minnesota Recovers Disaster Task Force has helped more than 200 communities since 1993.

7. PRESERVING WETLANDS

The Wetland Conservation Act of 1991 required anyone proposing to drain or fill a wetland first to try to avoid disturbing the wetland; second, to try to minimize any impact on the wetland; and, finally, to replace any lost wetland acres, functions and values. Nearly 30,000 acres of wetlands have been actively preserved since adoption of the act. The Permanent Wetlands Preserve Program, which began in 1992, acquired nearly 300 permanent easements for 11,000 acres of wetlands and surrounding upland. The Wetland Bank, which gives landowners the option of buying wetland "credits," has taken deposits of another 2,000 acres.

8. MANAGING SEPTIC TANKS

The 1994 Individual Sewage Treatment Systems Act required cities and counties to adopt ordinances regulating the design, location, installation, use and maintenance of septic tanks. Local ordinances were required statewide – for the first time – to meet or exceed state standards and criteria. As of 2001, nearly 90 percent of local governments reporting to the Pollution Control Agency have ordinances that call for approval of treatment system design. Much work remains to be done, however. Today, one third of the state's 600,000 septic tanks are thought to be failing, with 64,000 considered imminent threats to public health.

9. GETTING LOCAL

The Comprehensive Local Water Management Act of 1985 changed the way county governments view the job of protecting and managing water resources, and the way the state views counties. On average, counties put in three dollars for every one the state spends on local water planning. And, whether it is wetland or drinking water protection, feedlot management or well sealing, the state looks to local governments more than ever to help protect and manage water.

Continued on page 18

TOP WATER ACCOMPLISHMENTS OF THE 1990s

10. MANAGING FEEDLOTS

In the past decade, Minnesota completed its first comprehensive feedlot registration program – over 29,000 owners registered their feedlots – updated a 20-year old feedlot rule, and completed an extensive study of the environmental, economic and social effects of animal agriculture. By 2002, nearly 80 percent of Minnesota's large feedlots received NPDES permits as required under federal and state law. Minnesota's revised feedlot program is considered one of the best in the nation, meeting or exceeding all the requirements of the new EPA Confined Animal Feeding Operation regulations. In addition, over the last six years, the Agricultural Best Management Practices Loan program helped finance the environmental upgrades of over 1,000 feedlots. These steps promise major improvement in the quality of Minnesota waters.

11. CLEANING UP

The Pollution Control Agency and Department of Agriculture made great progress cleaning up Minnesota's most contaminated facilities and sites through a mix of nationally recognized programs. The State Superfund program reduced the number of active superfund sites by 45 percent to less than 120. The Leaking Underground Storage Tank program closed nearly 10,000 sites with nearly \$300 million in cleanup costs covered by the Petrofund. The MDA closed nearly 2,300 agricultural incidents and sites with nearly \$12 million from the Agricultural Chemical Response and Reimbursement Account. The Legislature also established a drycleaner fund to cover the cost of cleanups at drycleaning sites and three brownfield programs: the Voluntary Investigation and Cleanup, Agricultural VIC and Voluntary Petroleum Investigation and Cleanup programs. These fee-based programs encourage the cleanup and reuse of contaminated sites by issuing assurances from liability under the Minnesota Environmental Response and Liability Act.

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

103G.222 Replacement of wetlands.

Subdivision 1. **Requirements.** (a) Wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value under a replacement plan approved as provided in section 103G.2242, a replacement plan under a local governmental unit's comprehensive wetland protection and management plan approved by the board under section 103G.2243, or, if a permit to mine is required under section 93.481, under a mining reclamation plan approved by the commissioner under the permit to mine. Mining reclamation plans shall apply the same principles and standards for replacing wetlands by restoration or creation of wetland areas that are applicable to mitigation plans approved as provided in section 103G.2242. Public value must be determined in accordance with section 103B.3355 or a comprehensive wetland protection and management plan established under section 103G.2243. Sections 103G.221 to 103G.2372 also apply to excavation in permanently and semipermanently flooded areas of types 3, 4, and 5 wetlands.

(b) Replacement must be guided by the following principles in descending order of priority:

- (1) avoiding the direct or indirect impact of the activity that may destroy or diminish the wetland;
- (2) minimizing the impact by limiting the degree or magnitude of the wetland activity and its implementation;
- (3) rectifying the impact by repairing, rehabilitating, or restoring the affected wetland environment;
- (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the activity;
- (5) compensating for the impact by restoring a wetland; and
- (6) compensating for the impact by replacing or providing substitute wetland resources or environments.

For a project involving the draining or filling of wetlands in an amount not exceeding 10,000 square feet more than the applicable amount in section 103G.2241, subdivision 9, paragraph (a), the local government unit may make an on-site sequencing determination without a written alternatives analysis from the

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

applicant.

(c) If a wetland is located in a cultivated field, then replacement must be accomplished through restoration only without regard to the priority order in paragraph (b), provided that a deed restriction is placed on the altered wetland prohibiting nonagricultural use for at least ten years.

(d) Restoration and replacement of wetlands must be accomplished in accordance with the ecology of the landscape area affected.

(e) Except as provided in paragraph (f), for a wetland or public waters wetland located on nonagricultural land, replacement must be in the ratio of two acres of replaced wetland for each acre of drained or filled wetland.

(f) For a wetland or public waters wetland located on agricultural land or in a greater than 80 percent area, replacement must be in the ratio of one acre of replaced wetland for each acre of drained or filled wetland.

(ff) For a wetland or public waters wetland impacted by a public transportation project in a less than 80 percent area the replacement may be at a ratio of one-and-a-half acres of replaced wetland for each acre of drained or filled wetland if the replacement:

- (1) is accomplished as provided in paragraph (l),**
- (2) is accomplished via in-kind wetland restoration,**
- (3) includes a upland buffer area of permanent native and noninvasive dominated vegetative cover.**

(g) Wetlands that are restored or created as a result of an approved replacement plan are subject to the provisions of this section for any subsequent drainage or filling.

(h) Except in a greater than 80 percent area, only wetlands that have been restored from previously drained or filled wetlands, wetlands created by excavation in nonwetlands, wetlands created by dikes or dams along public or private drainage ditches, or wetlands created by dikes or dams associated with the restoration of previously drained or filled wetlands may be used in a statewide banking program established in rules adopted under section 103G.2242, subdivision 1. Modification or conversion of nondegraded naturally occurring wetlands from one type to another are not eligible for enrollment in a statewide wetlands bank.

(i) The technical evaluation panel established under section 103G.2242, subdivision 2, shall ensure that sufficient

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

time has occurred for the wetland to develop wetland characteristics of soils, vegetation, and hydrology before recommending that the wetland be deposited in the statewide wetland bank. If the technical evaluation panel has reason to believe that the wetland characteristics may change substantially, the panel shall postpone its recommendation until the wetland has stabilized.

(j) This section and sections 103G.223 to 103G.2242, 103G.2364, and 103G.2365 apply to the state and its departments and agencies.

(k) For projects involving draining or filling of wetlands associated with a new public transportation project in a greater-than-80 percent area, public transportation authorities, other than the state department of transportation, may purchase credits from the state wetland bank established with proceeds from Laws 1994, chapter 643, section 26, subdivision 3, paragraph (c). ~~Wetland banking credits may be purchased at the least of the following, but in no case shall the purchase price be less than \$400 per acre: (1) the cost to the state to establish the credits; (2) the average estimated market value of agricultural land in the township where the road project is located, as determined by the commissioner of revenue; or (3) the average value of the land in the immediate vicinity of the road project as determined by the county assessor. Public transportation authorities in a less than 80 percent area may purchase credits from the state at the cost to the state to establish credits.~~

(l) A replacement plan for wetlands is not required for individual projects that result in the filling or draining of wetlands for the repair, rehabilitation, reconstruction, or replacement of a currently serviceable existing state, city, county, or town public road necessary, as determined by the public transportation authority, to meet state or federal design or safety standards or requirements, excluding new roads or roads expanded solely for additional traffic capacity lanes. This paragraph only applies to authorities for public transportation projects that:

(1) minimize the amount of wetland filling or draining associated with the project and consider mitigating important site-specific wetland functions on-site;

(2) except as provided in clause (3), submit project-specific reports to the board, the technical evaluation panel, the commissioner of natural resources, and members of the

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

public requesting a copy at least 30 days prior to construction that indicate the location, amount, and type of wetlands to be filled or drained by the project or, alternatively, convene an annual meeting of the parties required to receive notice to review projects to be commenced during the upcoming year; and

(3) for minor and emergency maintenance work impacting less than 10,000 square feet, submit project-specific reports, within 30 days of commencing the activity, to the board that indicate the location, amount, and type of wetlands that have been filled or drained.

Those required to receive notice of public transportation projects may appeal minimization, delineation, and on-site mitigation decisions made by the public transportation authority to the board according to the provisions of section 103G.2242, subdivision 9. The technical evaluation panel shall review minimization and delineation decisions made by the public transportation authority and provide recommendations regarding on-site mitigation if requested to do so by the local government unit, a contiguous landowner, or a member of the technical evaluation panel.

Except for state public transportation projects, for which the state department of transportation is responsible, the board must replace the wetlands, and wetland areas of public waters if authorized by the commissioner or a delegated authority, drained or filled by public transportation projects on existing roads.

Public transportation authorities at their discretion may deviate from federal and state design standards on existing road projects when practical and reasonable to avoid wetland filling or draining, provided that public safety is not unreasonably compromised. The local road authority and its officers and employees are exempt from liability for any tort claim for injury to persons or property arising from travel on the highway and related to the deviation from the design standards for construction or reconstruction under this paragraph. This paragraph does not preclude an action for damages arising from negligence in construction or maintenance on a highway.

(m) If a landowner seeks approval of a replacement plan after the proposed project has already affected the wetland, the local government unit may require the landowner to replace the affected wetland at a ratio not to exceed twice the replacement ratio otherwise required.

(n) A local government unit may request the board to

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

reclassify a county or watershed on the basis of its percentage of presettlement wetlands remaining. After receipt of satisfactory documentation from the local government, the board shall change the classification of a county or watershed. If requested by the local government unit, the board must assist in developing the documentation. Within 30 days of its action to approve a change of wetland classifications, the board shall publish a notice of the change in the Environmental Quality Board Monitor.

(o) One hundred citizens who reside within the jurisdiction of the local government unit may request the local government unit to reclassify a county or watershed on the basis of its percentage of presettlement wetlands remaining. In support of their petition, the citizens shall provide satisfactory documentation to the local government unit. The local government unit shall consider the petition and forward the request to the board under paragraph (n) or provide a reason why the petition is denied.

Subd. 2. **Road credit funding.** The board shall give priority to restoration projects that:

(1) will encourage land use that leads to more compact development or redevelopment;

(2) will encourage public or private infrastructure investments which connect ecosystems and communities, attract private sector investment in commercial or residential properties adjacent to the public improvement; or

(3) are located in critical rural and urban watersheds.

Subd. 3. **Wetland replacement siting.** (a) Siting wetland replacement must follow this priority order:

(1) on site or in the same minor watershed as the affected wetland;

(2) in the same watershed as the affected wetland;

(3) in the same county as the affected wetland;

(4) in an adjacent watershed or county to the affected wetland; and

(5) statewide, only for wetlands affected in greater than 80 percent areas and for public transportation projects, except

Wetland Conservation Act Amendment – 2003

Alternative Language for HF846, SF656

BWSR, JJ, 3/25/03, F:\LanWData\WCA\Legislation\2003\Roads and Wetland ratio bill alternative 2003.doc

that wetlands affected in less than 50 percent areas must be replaced in less than 50 percent areas, and wetlands affected in the seven-county metropolitan area must be replaced in the affected county or, if no restoration opportunities exist in the county, in another seven-county metropolitan area county.

(b) The exception in paragraph (a), clause (5), does not apply to replacement completed using wetland banking credits established by a person who submitted a complete wetland banking application to a local government unit by April 1, 1996.

(c) When reasonable, practicable, and environmentally beneficial replacement opportunities are not available in siting priorities listed in paragraph (a), the applicant may seek opportunities at the next level.

(d) For the purposes of this section, "reasonable, practicable, and environmentally beneficial replacement opportunities" are defined as opportunities that:

(1) take advantage of naturally occurring hydrogeomorphological conditions and require minimal landscape alteration;

(2) have a high likelihood of becoming a functional wetland that will continue in perpetuity;

(3) do not adversely affect other habitat types or ecological communities that are important in maintaining the overall biological diversity of the area; and

(4) are available and capable of being done after taking into consideration cost, existing technology, and logistics consistent with overall project purposes.

(e) Regulatory agencies, local government units, and other entities involved in wetland restoration shall collaborate to identify potential replacement opportunities within their jurisdictional areas.

HIST: 1991 c 354 art 6 s 8; 1993 c 175 s 2; 1994 c 627 s 3; 1996 c 462 s 24; 2000 c 382 s 5

Senate file 750

Policy changes proposed as part of the 04-05 budget

In line with the reductions in BWSR staffing, elimination of local water planning funding, and no funding for the local government road replacement program in the 04-05 budget the budget bill includes a number of policy changes being proposed that are commensurate with the proposed reductions.

Overall the changes propose three things 1) repeal the requirement for the state to replace wetland impacts from safety related public transportation projects, 2) creates a fee system to support the State wetland banking program, 2) repeals the comprehensive local water planning rule, and makes modifications to the water planning statutes intended to streamline processes and integrate provisions for plan content and review processes from rule into statute.

Specifically:

Section 68 (page 60.19) - Changes the requirement for the development of a priority review schedule for metropolitan surface water management plans by BWSR from shall to may. This provision dates back to when rules were promulgated in the early 90's, for second generation plans, which resulted in a large number of plans having to be updated in a short period of time. Since second generation plans are all completed there is no longer a need to have the priority plan review schedule. We believe keeping the provision, and changing the provision from shall to may, is still appropriate in the event that a future change in statute might require a large number of updates to occur again.

The next group of changes deals with comprehensive local water planning, that relate to counties outside the seven county metro area. The current rule is structured to guide counties through the initial preparation of a water plan. Since all counties have state approved plans and with the elimination of funding we think it is appropriate to repeal the outdated rule and deal with provisions for the scope of plans, plan content and the periodic updating of plans in statute alone.

Sections 69 to 90 (page 61.16) - These sections add a number of definitions to the water planning statute, which are necessary with the repeal of the rule. They deal specifically with defining, plan authority, priority concerns, scoping document, and state review agencies. Changes the reference from "comprehensive water plan" to "local water management plan". This change is being proposed to reflect the emphasis that these plans are locally driven and based on local identified priority resource concerns. Lastly the changes add to the statute guidance on the identification of priority concerns, the plan development process including public involvement, notice, and review and approval. These changes are necessary to bring these elements from the repealed rule into statute.

Section 91 to 96 (page 71.33) – These are technical changes to the Local Water Resource Protection and Management Program to reflect that the funding for this program is eliminated. It changes the law from BWSR shall make grants to BWSR may make grants for the development and implementation of local water plans. We are not proposing to eliminate this provision in the event that funding may be renewed in the future.

Section 96 – this section is a technical change which deletes references in this section that are proposed to be repealed.

End water planning changes

Section 97 (page 74.16) – This change relates to the requirement for watershed districts to complete a revised watershed management plan within 120 days after the approval of a plan outline by BWSR. This 120 requirement is overly prescriptive.

WCA changes

Section 98 (page 74.31) - Adds SWCD's to the definition of local unit of government for the purposes of the wetland conservation act. This provides clear direction that if a county, city, township, or watershed management organization does not elect to implement the wetland conservation act that a SWCD can as the last option.

Section 99 (page 75.8) - Removes the requirement from statute that the state (BWSR) is required to mitigate wetland impacts from public transportation projects on existing roads, excluding MnDOT projects.

Sect 100 to 101 (page 80.3) – Establishes the authority for BWSR to charge fees for transactions relating to the wetland-banking program to cover the cost of administration (\$128,000) per year.

Repealer

Section 130 (page 101.3) – provides for the repeal of the outdated local water planning rule and a number of sections of statute dealing with outdated provision of the local water planning statute.

April 2003

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BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET
LOWER LEVEL CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
APRIL 23, 2003

BOARD MEMBERS PRESENT: Lee Coe, Darrell Bruggman, Jérôme Deal, Jack Frost, Karen Harder, Char Kahler, Paul Krabbenhoft, Clair Nelson, Victor Ormsby, Dwain Otte, Jim Anderson, Minnesota Extension Service (MES); Becky Balk, Department of Agriculture (MDA); Gene Merriam/Wayne Edgerton, Department of Natural Resources (DNR); Dan Wilson, Department of Health (MDH)

BOARD MEMBERS ABSENT: Ginny Imholte, and Lisa Thorvig, MPCA

STAFF PRESENT: Ron Harnack, Doug Thomas, Marybeth Block, John Jaschke, Wayne Zellmer, Phil Belfiori, Mary Jo Anderson

OTHERS PRESENT:

Sandy Hooker, Minnesota Association of Townships
LeAnn Buck, Minnesota Association of Soil and Water Conservation Districts
Mac Cafferty, City of Lakeville
Brian Watson, Dakota County SWCD

BWSR Meeting Minutes
April 23, 2003
Page Two

Chair Coe called the meeting to order at 9:00 a.m.

Pledge of Allegiance

Adopt Agenda – The agenda item regarding the “Northwest Red River Valley Rural Flood Damage Inventory and Assessment” has been removed from the agenda this month and will be postponed until a later meeting. Moved by Clair Nelson, seconded by Jack Frost, to adopt the agenda as presented. Motion passed on a voice vote.

**

03-24

Minutes of March 26, 2003 – Wayne Edgerton recommended changes on page four regarding his report. The public tour of the Big Woods Dairy tour date of August 7 should be changed to May 24. Wayne made a correction to the sentence, “A legislative bill contains language to make testing mandatory rather than voluntarily, and transfers the testing from DNR to the Board of Animal Health” – this should read, “A legislative bill contains language to make testing mandatory rather than voluntarily, and transfers all registration on cervidae herds to the Board of Animal Health”. Moved by Darrell Bruggman, seconded by Dwain Otte, to approve the minutes of March 26, 2003 as corrected. Motion passed on a voice vote.

**

03-25

Reports

Chair's Report – Chair Coe stated that the EQB did not meet this month. Chair Coe reported that the Governor's office has a new process for board members appointments; a telephone interview with applicants. Chair Coe and Darrell Bruggman have been interviewed via telephone regarding their application for reappointment. Chair Coe stated that appointments should be made by May 1st.

Executive Director's Report – Doug Thomas stated that Ron Harnack is at an informational hearing this morning with the House Environment and Natural Resources Finance Committee to discuss the wetland road replacement issues contained in the House Omnibus Transportation bill. Information was distributed regarding HF #627 which contains policy changes relating to transportation/wetland issues. Doug reported that the Soil and Water Conservation District Technical Assistance Ad Hoc Committee finished their report to MASWCD and BWSR. This report will be reviewed at the BWSR Cost-Share Committee meeting today. Board members should contact staff if they have comments on this report. The Cost-Share Committee recommendation on this report will come before the full board at the June meeting.

Doug reported that the Governor's supplemental budget now includes a \$2.7M appropriation to BWSR for local water planning. Doug reported that USDA has announced that a CRP application sign-up will be May 5 – May 30.

Dispute Resolution Committee (DRC) – Chair Coe stated that Jim Haertel distributed copies of the DRC report with the board meeting notice.

BWSR Meeting Minutes
April 23, 2003
Page Three

Wetlands Committee – Darrell Bruggman reported that John Jaschke will present information later on the agenda today.

Cost-Share/Soil Conservation Committee – Dwain Otte reported that the Cost-Share Committee will meet today immediately following the board meeting. Dwain distributed the Dakota County SWCD "News & Notes" Newsletter. Dwain reported that Dakota County SWCD was recently selected by the U.S. Environmental Protection Agency (EPA) as a "Clean Water Partner for the 21st Century". Brian Watson stated that the SWCD was recognized for their past efforts within the Vermillion River Watershed and their leadership in developing the Vermillion River Watershed map and publishing the Vermillion River Watershed Handbook, a guide to help landowners make their property Vermillion River friendly. Dwain stated that the SWCD staff, the Dakota County Board of Commissioners and the Office of Planning, the Dakota County Environmental Education Program, Friends of the Mississippi River, the Department of Natural Resources, Metropolitan Council, U.S. Forest Service, and Trout Unlimited were all involved in these two projects.

Education and Public Relations Committee – Paul Krabbenhoft reported that the Education Committee met this morning. Victor Ormsby has been appointed to the committee. Paul stated that a Minnesota Drainage Education Workgroup has been established with MES, DNR, MAWD, PCA, MDA, and BWSR to develop a plan for statewide drainage education without duplicating efforts but collaborating on issues.

Agency Reports

Becky Balk, Minnesota Department of Agriculture (MDA), reported that the Ag Loan Program allocated \$8.7M in loans to 5,000 projects throughout the state. Becky stated that the "Watershed Heroes Conference" will be held June 18-20 at Gustavus Adolphus College in St. Peter. Doug Thomas stated that BWSR has accepted the challenge to have a team compete at the conference, board members should contact staff if they are interested.

Dan Wilson, Minnesota Department of Health (MDH), reported that the City of Climax (Pope County) and the City of Sabin (Clay County) have each received \$1M for demonstration plants for arsenic removal. Dan stated that there were ten cities nationwide that were awarded pilot projects, two cities in Minnesota. Dan announced that Gary Englund, section manager of Drinking Water Protection, will be retiring in May.

Jim Anderson, Minnesota Extension Service (MES), reported that a Stormwater Management Conference will be held May 1-2 at the Stormwater Research Center on the Rosemount property – invitations have been sent. Jim reported that a Wetland Delineators Workshop is being scheduled for the end of June, announcements will be sent out the first week in May.

Committee Recommendations

Metro Water Planning Subcommittee

City of Lakeville Wetland Management Plan – Phil Belfiori introduced Brian Watson, Dakota

BWSR Meeting Minutes
April 23, 2003
Page Four

- SWCD; Mac Cafferty, City of Lakeville; and Andi Moffatt, WSB & Associates. Phil stated that the Metro Water Planning Subcommittee and staff have reviewed the
- ** City of Lakeville's Wetland Management Plan and recommend approval. Moved by
03-26 Dwain Otte, seconded by Karen Harder, to approve the City of Lakeville Wetland Management Plan. Motion passed on a voice vote.

Southern Water Planning Subcommittee

- Kanaranzi-Little Rock Watershed District Revised Watershed Management Plan; Okabena-Ocheda Watershed District Revised Management Plan; and Nobles County Comprehensive Local Water Plan – Char Kahler reported that the Southern Water
- ** Planning Subcommittee reviewed these plans and recommend approval. Moved by
03-27 Victor Ormsby, seconded by Char Kahler, to approve the five-year plan for the Kanaranzi-Little Rock Watershed District Revised Watershed Management Plan, the Okabena-Ocheda Watershed District Revised Management Plan, and the Nobles County Comprehensive Local Water Plan. Motion passed on a voice vote.

- Lyon County Comprehensive Local Water Plan – Char Kahler reported that the Southern Water Planning Subcommittee reviewed the Lyon County Comprehensive
- ** Local Water Plan and recommend approval. Moved by Victor Ormsby, seconded by
03-28 Char Kahler, to approve the Lyon County Comprehensive Local Water Plan. Motion passed on a voice vote.

Chair Coe called for a break at 10:10 a.m. The meeting reconvened at 10:30 a.m.

Old Business

Budget Overview and Legislative Issues – Ron Harnack reported that the House recommendation is the Governor's recommendation for BWSR's base budget; however, the House Environment Finance Committee added \$3M for comprehensive local water resources and protection management grants and \$200,00 for the Red River Basin Commission. The Senate will be finalizing their budget later this week or early next week. Ron reviewed some of the policy issues relating to wetlands and handed out a document that reflects a consensus of Counties, WD's, DNR, PCA, DOT, Townships, and BWSR. Ron commended John Jaschke for doing an excellent job of dealing with the wetland issues.

Ron gave an update on the SWCD law amendments – the levy authority has been removed in the House; and the bill is in Senate Taxes. MASWCD, Judy Erickson and Doug Thomas have been very good in presenting and defending the issues for SWCD's.

Ron commented on BWSR staffing issues. BWSR has entered into an inter-agency agreement with the U.S. Army Corp of Engineers on GP-2. Ron reported that Tammy McGlone has left BWSR and has taken a position with the Department of Children, Families and Learning.

BWSR Meeting Minutes
April 23, 2003
Page Five

Commissioner Gene Merriam, Department of Natural Resources, apologized for his absence at past meetings. He stated that he plans to become a more active participant on the Board and will do so to the fullest extent that his schedule permits. Commissioner Merriam stated that budget and legislative issues are quite contentious regarding wetlands and all-terrain vehicles. Commissioner Merriam reported that a joint letter from DNR, PCA and BWSR was sent to the federal government regarding federal proposals to modify the definition of "waters of the US" in relation to WCA, public waters and waters of the state. Commissioner Merriam stated that DNR priorities include forestry issues and the challenges of the forest industry; accomplish objectives of timber harvesting; and flood damage reduction measures in the northwest.

Ron Harnack updated the Board on the southeast and Red River CREPs. The CREP proposals include buffers, wetland restoration, flood storage, significant erosion, and a request for 194,000 acres. The Governor will be asked to sign a letter submitting the applications to the Secretary of Agriculture. Ron met with the Governor's office staff to provide them with background information on CREPs. Ron stated that discussions continue with FSA and NRCS on finalization of the CREP agreements and the non-federal commitment of about \$35M. Ron will schedule a meeting after the legislative session with FSA, NRCS, Governor's office, DNR, PCA, and MDA to discuss CREPs and how the state will proceed on the requests.

New Business

Proposed '04 Wetland Conservation Act (WCA) Base Grant – John Jaschke explained that two years ago MASWCD and AMC requested BWSR to re-evaluate the allocation of WCA grant funding to reflect updated workload factors. BWSR staff convened a group of SWCD and county representatives in 2002 to discuss the reallocation criteria. The group developed a proposal using six numeric criteria as the basis for determining workload and developed a weighting factor for each of those variables. Policy considerations related to minimum and maximum caps, SWCD portion, future formula adjustments, and grant proposals were reviewed by the BWSR Wetland Committee on March 26, 2003 and a recommendation for funding allocation was developed. The proposed allocation for WCA grant funding is contingent on appropriation of the amount proposed in the Governor's FY 04-05 budget. Discussion followed. The resolution will state that "unused funds will be returned to BWSR for redistribution to other local units of government for natural resources block grant purposes". Moved by Victor Ormsby, seconded by Paul Krabbenhoft, that the Board endorses the policy and criteria used to establish the revised WCA base grant; the specifics of the resolution and allocation will be dependent on final legislative and Governor's action. Motion passed on a voice vote.

**

03-29

Chair Coe stated that a strength of BWSR is the staff and the working relationships with agency members. Chair Coe thanked staff for their hard work and great efforts.

LeAnn Buck, MASWCD, reported that SWCDs will have a role in the implementation of the EQIP allocation. LeAnn stated that MASWCD will hold several regional meetings with local

BWSR Meeting Minutes
April 23, 2003
Page Six

work groups regarding the expenditure of cost-share funds. LeAnn stated that the MASWCD Board of Directors discussed area CREPs at their meeting yesterday. LeAnn, on behalf of MASWCD, thanked BWSR for their work on WCA policy issues. MASWCD supports Ozment's efforts on local water planning dollars. Chair Coe thanked MASWCD for their efforts during the legislative session.

Sandy Hooker, MAT, stated that MAT staff work tirelessly during the year and the legislative session. Sandy thanked Ron Harnack and BWSR staff for their hard work.

Jerome Deal, reported that the Energy and Environment Research Center (EERC) of North Dakota has received \$700,000 from the U.S. Department of Agriculture to study the "waffle effect" to reduce flooding in the Red River Valley. This is a government program that pays farmers to store water during certain times of the year.

Jack Frost reported that the MAWD summer meeting/tour will be held in St. Cloud the end of June.

Upcoming Meetings

- State Envirothon, May 21, Minnesota Zoo, Apple Valley
- Next BWSR Meeting, May 28, in St. Paul

** Moved by Clair Nelson, seconded by Jerome Deal, to adjourn the meeting at 12:05 p.m.
03-30 Motion passed on a voice vote.

Respectfully submitted,



Leland Coe
Chair

4/22/03

Board Resolution – 03-29

Wetland Conservation Act Administration Grant Reallocation

WHEREAS, the Minnesota Association of Soil and Water Conservation Districts and the Association of Minnesota Counties requested that the Board of Water and Soil Resources re-evaluate the allocation of the Wetland Conservation Act grant funding to reflect workload factors.

WHEREAS, Board of Water and Soil Resources staff convened a group of soil and water conservation district and county representatives in 2002 to discuss the reallocation criteria.

WHEREAS, the group developed a proposal using six numeric criteria as the basis for determining workload and developed a weighting factor for each of those variables. (See attachment #1)

WHEREAS, policy considerations related to minimum and maximum caps, soil and water conservation district portion, future formula adjustments, and grant proposals were reviewed by the BWSR wetland committee on March 26, 2003 and a recommendation for funding allocation was developed. (See attachment #2)

NOW THEREFORE, the Board of Water and Soil Resources does hereby allocate the Wetland Conservation Act grant funding that has been proposed in the Governor's FY 04-05 Budget according to Attachment 2 with the following conditions: 1) ~~that the funding is in an amount~~ ^{will be} equal to \$2,196,790.00 (an increase of \$452,000 from FY 03), 2) that the funds distributed to local governments will be used for Wetland Conservation Act administration and any unused funds, in the second year of the grant agreement, will be either (a) used for wetland activities identified in a comprehensive local water management plan or (b) ^{unused funds will be BWSR} returned to the state for redistribution to other ^{local} units of government, ^{for nraa purposes} 3) the formula will be reassessed after two years of reporting have been compiled in order to emphasize reported workload as a reflection of actual workload rather than the demographic and geographic information used to represent potential workload, and 4) the amount of Wetland Conservation Act funding that is shifted to comprehensive local water management activities will not be used to count as workload towards future Wetland Conservation Act administration formula adjustments.


Leland Coe, Chair
Board of Water and Soil Resources

Date: April 23, 2003

WCA Revised Formula Explanation (3-18-03)

The data and formula used have not been updated since the early 1990s. There is a question as to whether these measures now accurately reflect existing workloads for the administration of the WCA. Staff has been asked to look at the formula to determine if there is a better way to allocate implementation dollars. Two options will be looked at:

- 1) Use the existing formula using the same variables with new data, or
- 2) Create a new formula using new variables and data.

A new formula has been proposed using the following variables.

W C A W O R K L O A D			
Variables	Weighting	Data Type	Data Source
Number of Landowner Contacts resulting in mitigation or replacement	15%	Qualitative	WCA Report (annual)
Number of Cease and Desist Orders & Restoration Orders issued	10%	Quantitative	WCA Report (annual)
Change in population	18%	Quantitative	State Demographer
Amount of wetlands on non-public lands	36%	Quantitative	NWI
Amount of poorly drained soils on non-public lands	8%	Quantitative	LMIC State-wide
Amount of Shoreland on non-public lands	13%	Quantitative	DNR PWI / LMIC

The new formula is based on the data having the following attributes:

- **Consistent** – This means the data is available for all WCA LGUs on frequent basis.
- **Correlated to actual or potential workload** – This means the data reflects the time or money expended by the WCA LGU by some direct measure. For example, the WCA LGU knows it averages 2 hours when reviewing a replacement plan application. Therefore, the number of replacement plan applications reviewed by the WCA LGU becomes a valid measure of workload.
- **Distinct or unique** – This means the data needs to provide unique workload information. For example, if the change of population and the number of construction permits issued are highly correlated, we would want to use only one of the measures so we do not skew the results by inadvertently weighting the same aspect of workload higher.
- **Qualitative v quantitative** – We need to be clear when each type of data is appropriately used. Preference is for quantitative data.

In order to analyze the data it is necessary to express each variable as a common unit. The unit chosen changes the acres, miles, or numbers of the variable to a percent of the total statewide workload per county for each variable in the formula. For example, if there are 100 acres of wetland in the state on private lands and County X has 5.3 acres, then County X would be allocated 5.3% of the total statewide workload for that variable.

The variables, themselves, were weighted to reflect how well the committee believed each correlated with actual workload. The result is a weighted average of the total statewide workload for each county. Finally, a qualitative factor based on BWSR Board Conservationist assessment allowed for small additions to the workload formula based on past and projected workload.

In addition to the above measures of workload, a number of policy issues were considered.

- Allocation Range: cap/maximum and minimum
- SWCD portion for workload required by statute and rule (TEP, Enforcement): fixed amount or percent of County allocation or combination of the two ("base plus")
- Future formula adjustments: frequency and basis, "buffering" via graduated changes
- Match requirements: amount and type
- Create incentives to pool resources (staff) among Counties/LGUs
- Create a competitive pool for "extras" such as wetland plan, DNR delegation, staff certifications, etc.

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PROPOSED 2004 BWSR WETLAND CONSERVATION ACT BASE GRANT

4/11/03

COUNTY	FY 02	FY 04	FY 04	
	WETLAND CONSERVATION ACT		WETLAND CONSERVATION ACT	
	BASE GRANT		INCREASE	MINIMUM SWCD TRANSFER
AITKIN	\$19,200	\$38,400	\$19,200	\$5,760
ANOKA	\$40,500	\$73,000	\$32,500	\$10,950
BECKER	\$24,200	\$28,000	\$3,800	\$5,000
BELTRAMI (1.5 SWCDs) **	\$36,000	\$70,000	\$34,000	\$8,800
BENTON	\$36,000	\$36,000	\$0	\$5,400
BIG STONE	\$10,000	\$10,000	\$0	\$5,000
BLUE EARTH	\$19,200	\$21,000	\$1,800	\$5,000
BROWN	\$10,000	\$10,000	\$0	\$5,000
CARLTON	\$19,200	\$26,000	\$6,800	\$5,000
CARVER	\$36,000	\$36,000	\$0	\$5,400
CASS	\$51,000	\$51,000	\$0	\$7,650
CHIPPEWA	\$10,000	\$10,000	\$0	\$5,000
CHISAGO	\$26,700	\$32,000	\$5,300	\$5,000
CLAY	\$16,700	\$19,000	\$2,300	\$5,000
CLEARWATER	\$19,200	\$23,000	\$3,800	\$5,000
COOK	\$12,200	\$15,000	\$2,800	\$5,000
COTTONWOOD	\$10,000	\$10,000	\$0	\$5,000
CROW WING	\$36,000	\$44,000	\$8,000	\$6,600
DAKOTA	\$41,000	\$61,000	\$20,000	\$9,150
DODGE	\$16,700	\$19,000	\$2,300	\$5,000
DOUGLAS	\$19,200	\$25,000	\$5,800	\$5,000
FARIBAULT	\$10,000	\$10,000	\$0	\$5,000
FILLMORE	\$10,000	\$10,000	\$0	\$5,000
FREEBORN	\$10,000	\$10,000	\$0	\$5,000
GOODHUE	\$16,700	\$19,000	\$2,300	\$5,000
GRANT	\$13,980	\$16,000	\$2,020	\$5,000
HENNEPIN	\$36,000	\$66,000	\$30,000	\$9,900
HOUSTON	\$12,200	\$15,000	\$2,800	\$5,000
HUBBARD	\$26,700	\$29,000	\$2,300	\$5,000
ISANTI	\$26,700	\$29,000	\$2,300	\$5,000
ITASCA	\$36,010	\$51,000	\$14,990	\$7,650
JACKSON	\$10,000	\$10,000	\$0	\$5,000
KANABEC	\$26,700	\$29,000	\$2,300	\$5,000
KANDIYOHI	\$19,200	\$25,000	\$5,800	\$5,000
KITSON	\$16,700	\$19,000	\$2,300	\$5,000
KOCHICHING	\$19,200	\$33,400	\$14,200	\$5,010
LAC QUI PARLE	\$10,000	\$10,000	\$0	\$5,000
LAKE	\$16,700	\$19,000	\$2,300	\$5,000
LAKE OF THE WOODS	\$26,700	\$39,000	\$12,300	\$5,850
LE SUEUR	\$16,700	\$19,000	\$2,300	\$5,000
LINCOLN	\$10,000	\$10,000	\$0	\$5,000
LYON	\$10,000	\$10,000	\$0	\$5,000
MCLEOD	\$16,700	\$19,000	\$2,300	\$5,000
MAHNOMEN	\$12,200	\$15,000	\$2,800	\$5,000
MARSHALL (1.5 SWCDs) **	\$19,200	\$22,000	\$2,800	\$5,000
MARTIN	\$10,000	\$10,000	\$0	\$5,000
MEeker	\$19,200	\$22,000	\$2,800	\$5,000
MILLE LACS	\$19,200	\$26,000	\$6,800	\$5,000
MORRISON	\$26,700	\$35,000	\$8,300	\$5,250
MOWER	\$12,200	\$15,000	\$2,800	\$5,000
MURRAY	\$10,000	\$10,000	\$0	\$5,000
NICOLLET	\$16,700	\$19,000	\$2,300	\$5,000
NOBLES	\$10,000	\$10,000	\$0	\$5,000
NORMAN	\$12,200	\$15,000	\$2,800	\$5,000
OLMSTED	\$26,700	\$29,000	\$2,300	\$5,000
OTTER TAIL (2 SWCDs) **	\$33,200	\$69,000	\$35,800	\$14,000

PROPOSED 2004 BWSR WETLAND CONSERVATION ACT BASE GRANT

4/11/03

COUNTY	FY 02	FY 04	FY 04	
	WETLAND CONSERVATION ACT		WETLAND CONSERVATION ACT	
	BASE GRANT		INCREASE	MINIMUM SWCD TRANSFER
PENNINGTON	\$16,700	\$19,000	\$2,300	\$5,000
PINE	\$36,700	\$40,000	\$3,300	\$6,000
PIPESTONE	\$10,000	\$10,000	\$0	\$5,000
POLK (2 SWCDs) **	\$16,700	\$25,000	\$8,300	\$10,000
POPE	\$15,200	\$18,000	\$2,800	\$5,000
RAMSEY #	\$26,700	\$19,000	-\$7,700	\$5,000
RED LAKE	\$12,200	\$15,000	\$2,800	\$5,000
REDWOOD	\$10,000	\$12,000	\$2,000	\$5,000
RENVILLE	\$10,000	\$10,000	\$0	\$5,000
RICE	\$19,200	\$28,000	\$8,800	\$5,000
ROCK	\$10,000	\$10,000	\$0	\$5,000
ROSEAU	\$26,700	\$28,000	\$1,300	\$5,000
ST. LOUIS (2 SWCDs) **	\$36,700	\$87,400	\$50,700	\$20,760
SCOTT	\$36,000	\$48,000	\$12,000	\$7,200
SHERBURNE	\$36,000	\$36,000	\$0	\$5,400
SIBLEY	\$12,200	\$15,540	\$3,340	\$5,000
STEARNS	\$51,500	\$53,000	\$1,500	\$7,950
STEELE	\$12,200	\$14,000	\$1,800	\$5,000
STEVENS	\$10,000	\$10,000	\$0	\$5,000
SWIFT	\$12,200	\$14,000	\$1,800	\$5,000
TODD	\$19,200	\$25,000	\$5,800	\$5,000
TRAVERSE	\$10,000	\$10,000	\$0	\$5,000
WABASHA	\$12,200	\$14,000	\$1,800	\$5,000
WADENA	\$21,700	\$23,000	\$1,300	\$5,000
WASECA	\$12,200	\$14,000	\$1,800	\$5,000
WASHINGTON	\$36,000	\$48,000	\$12,000	\$7,200
WATONWAN	\$10,000	\$10,000	\$0	\$5,000
WILKIN	\$10,000	\$10,000	\$0	\$5,000
WINONA	\$12,200	\$14,000	\$1,800	\$5,000
WRIGHT	\$36,000	\$49,000	\$13,000	\$7,350
YELLOW MEDICINE	\$10,000	\$10,000	\$0	\$5,000
MARSHALL-BELTRAMI SWCD **	\$5,000	\$6,050	\$1,050	NA
TOTALS	\$1,744,790	\$2,196,790	\$452,000	

ALLOCATION PROPOSAL NOTES:

* NO DECREASE IN BASE GRANTS, \$10,000 MINIMUM

* BASE GRANTS CAPPED AT 2x FY 02 GRANT

* SWCD TRANSFER IS \$5,000 OR 15%, WHICHEVER IS GREATER

** MULTIPLE SWCD ADJUSTMENTS

VOLUNTARY REDUCTION

H:04WCA

EXECUTIVE SUMMARY

Description of Planning Process

This plan is designed to meet the statutory requirements for the overall management plans for Okabena-Ocheda and Kanaranzi-Little Rock watershed districts, the comprehensive plan for Nobles County SWCD, and the comprehensive water management plan for Nobles County. The Kanaranzi-Little Rock Watershed District includes parts of southeastern Rock County and the Heron Lake Watershed District includes parts of Cottonwood, Jackson, and Murray counties. For this reason special attempts were made to ensure that this plan is consistent and complementary to neighboring county's plans.

Physical Environment and Land Use

Nobles County is located in extreme southwestern Minnesota, approximately 40 miles east of Sioux Falls, South Dakota and along the Minnesota - Iowa State border. The County is 720 square miles containing 20 rural townships and 14 villages or cities. The population of Nobles County was 20,832 in 2000. The City of Worthington accounts for more than half the county's population with a 2000 census of 11,283.

Approximately 99 percent of the land in the county is privately owned. Agriculture and its related services is the dominant land use and main economic activity within Nobles County. Corn, soybeans, hogs and cattle are the major commodities produced. According to the Minnesota Department of Agriculture, the average farm size is about 347 acres and there are about 1,199 farms. The City of Worthington is the only significantly developed area of the County. The County's industrial and commercial activities are also concentrated in Worthington.

Nobles County has dramatically changed since the period of its initial settlement. The tall grass prairie and prairie potholes have been replaced by intensive row crop production. In this process, many wetlands were drained or filled.

At present, development pressure on rural land is quite low. Countywide projections indicate a leveling-off or decline in rural populations and moderate population increases in Worthington. Agriculture will continue to be the County's primary economic activity. Eroding lands are of great concern in areas of intensive agriculture. The county will need to effectively implement long-term erosion control and water quality improvement.

There are no state designated recreation areas such as parks, forests, canoe routes, wild and scenic areas or trout streams located in Nobles County.

Watersheds

Nobles County is divided by the Bemis Moraine into two major watersheds: the Missouri River Basin and the Des Moines - Cedar Rivers Basin. The northern section of Worthington is split by these two drainage basins.

Within the Missouri River Basin, a portion of the Rock Watershed flows toward the southwest into Rock County. The Kanaranzi-Little Rock Watershed District includes the central and southwest areas of the County. The Okabena-Ocheda Watershed District contains most of the City of Worthington, Okabena Lake, Ocheda Lake, and Lake Bella. The extreme southeastern corner of the County is within the Little Sioux watershed that also contains Indian Lake and the City of Round Lake.

Within the Des Moines River Basin, two separate watersheds are found in Nobles County. Almost the entire northeastern portion of the County is within the Heron Lake Watershed District. The northern section of Worthington is within this watershed. A small area of extreme northeast Nobles County is within the Des Moines Headwaters watershed.

Surface Water

Clean Water Partnership diagnostic and feasibility studies have increased the surface water information available for many of Nobles County's lakes and streams. The Okabena-Ocheda-Bella Clean Water Partnership study sampled surface water during 1989 and 1990 in the Okabena, Ocheda and Bella lakes watersheds to assess water quality and identify non-point pollution sources. The Middle Des Moines Watershed Restoration Clean Water Partnership study sampled surface water and measured flow in the Heron Lake watershed during 1992.

There are no major rivers that run through the County. This restricts irrigation and larger scale, surface water dependent industrial or commercial developments. There are no lakes or streams in Nobles County with state protected levels or flows, but ordinary high water marks are recognized for five surface water basins in the County. At present time game fisheries are maintained in East Graham, West Graham, Okabena, and Indian Lakes by the use of aerators in the winter. Without the utilization of the aerators it is doubtful that populations of game fish could be maintained. With the scarcity of larger surface water basins, water oriented recreation and shoreline development potential in the County is limited.

Surface water quality in Nobles County is generally in poor condition. Lakes within the County are all hypereutrophic and do not support a swimmable use. Streams that have been monitored generally do not meet Class 2C standard and in instances do not meet Class 7 standards.

Judicial Ditch 6, flowing between Lake Okabena and Lake Ocheda, is listed as impaired for aquatic life on the 2002 MPCA Clean Water Act 303d TMDL list. The primary pollutant for the ditch is turbidity from total suspended solids.

Nobles County is part of the watershed for impaired stretches of the Rock and Upper Des Moines Rivers. The major surface water basins are located in the eastern half of the County. The western areas of the County contain many intermittent stream channels that most often run through croplands.

Nobles County has 72 miles of public drainage ditches, 46 miles of open ditches and 284 miles of county tiles. Both public and private ditches have contributed to the loss of wetlands originally present in Nobles County. Consequently, they are also partly the cause of a decline in available surface water, wildlife habitat area, and groundwater quantities. Ditching and tiling led to the degradation of natural stream courses and lake basins by forcing too much water to flow into them too fast.

High water levels have caused excessive shoreland erosion around Okabena and Ocheda lakes and have hampered existing farm drainage systems. Surface water level fluctuations also impact the wildlife habitat areas of Ocheda Lake.

Feedlots and animal confinement facilities are common throughout Nobles County. The 2001 inventory identified 672 sites. The greatest potential for pollution from feedlots in Nobles County is not from feedlot runoff, but rather the improper application of manure on fields.

Water quality is impacted by many intensive agricultural practices throughout the County. Soil erosion, fertilizers, and manure are the primary sources of contaminants. These sediments and nutrients are readily transported to receiving waters through well-defined drainage patterns. Very few original wetlands remain which decreases the amount of nutrients or sediments that may be trapped in upstream areas.

Forty-one percent of County cropland is subject to excessive water erosion that ranges up to, or exceeds, 20 tons per acre per year. Steeper slopes and slow infiltration rates in western areas of the County contribute to the potential for water erosion.

Wind erosion causes serious soil deterioration in Nobles County. The absence of soil cover, moisture, and windbreaks increase the likelihood of excessive wind erosion that range up to, or exceed 12 tons per acre per year. Severe wind erosion potential occurs on five percent of the County's cropland while remaining cropland has slight to moderate potential for wind erosion.

Other significant sources of surface water contaminants may include urban runoff and unsewered communities and nonconforming septic systems.

Groundwater

Groundwater aquifers found in glacial drift materials are the most common source of water in Nobles County. Groundwater quantities are naturally limited by the capacities of these surficial formations. The flow direction of glacial drift

aquifers in Nobles County is generally southward. However, shallower aquifers tend to flow toward the nearest or down gradient surface water body.

A decrease in groundwater quantity, combined with progressively increasing water demands and use, have made adequate potable water supplies a main concern of local agencies. The City of Worthington may be approaching its groundwater supply limit. The City is part of the Lewis and Clark Rural Water System that will bring water from the Missouri River. This water will supplement Worthington's existing supply.

There are 28 permitted community public water, or municipal wells in Nobles County that provide the public water supplies of nine communities. Farm water supplies are adequate over most of the area. Municipal and industrial water supplies have been, and will remain, a chronic problem.

Nobles County has contaminated groundwater that can be traced back to sources linked with the intensive agricultural land use of the County. The contaminants most prevalent are nitrates and coliform bacteria. Nitrates most commonly leach into groundwater from nitrogen fertilizers applied in excessive amounts to overlying cropland.

Coliform bacteria may come from animal manure and on-site sewage treatment systems common in rural agricultural areas such as Nobles County. Agricultural land use is perhaps the single significant cause of existing groundwater quality problems in Nobles County. Unfortunately, because of the countywide extent of cropland agriculture, the nitrate and coliform bacteria contamination is not isolated to specific areas or areas of greater concentrations.

The moderate quantities of available groundwater in Nobles County increase the importance of preserving and maintaining adequate groundwater quality in this area. Actions must be taken to maintain and improve groundwater quality in the County. The widespread nature of agriculture and apparent widespread frequency of contamination may indicate future threats to existing populations if appropriate measures are not taken.

Accomplishments

The mission of the Nobles County Comprehensive Water Management Plan is: to provide education on all aspects of water and land related issues and on current rules and regulations and their consequences, to seek and dedicate resource funds for implementation of Best Management Practices through sound hydrological management and effective and efficient environmental management, and to constantly evaluate and identify existing and potential problems and opportunities in water and related land resources.

Past planning process have developed many programs that are in an ongoing long-term implementation process. Highlights include:

1. Development of the Kanaranzi-Little Rock PL566 project implementing 50,000 acres of conservation tillage, 6,500 acres of contour farming, 75 miles of terraces, 270 water and sediment control basins, and 1,000 acres of grassland waterways.
2. Formed the Okabena-Ocheda-Bella Clean Water Partnership Joint Powers Board between the City of Worthington and Okabena-Ocheda Watershed implementing filter strips, construction of the W-9 Water Quality Detention Basin on Okabena Creek, flow monitoring on Whisky Ditch and Sunset Bay inlets into Lake Okabena, water monitoring on Lake Okabena and the replication of a 1963 survey to measure sedimentation rates in Lake Okabena and Sunset Bay, purchasing land and restoring wetlands in partnership with Nobles County Pheasants Forever and the Olson Trust.
3. Funded and continued a MPCA Clean Water Partnership grant and loan program to improve water quality, improve wildlife habitat and reduce flooding throughout the Heron Lake Watershed.
4. Implemented watershed district permitting programs and policies to provide for the orderly management of water resources.
5. Established new identical impervious surface rules for Okabena-Ocheda and Heron Lake watershed districts.
6. Developed and continued Well Sealing Program funded by the county and watershed districts. The County pays 33% and the Okabena-Ocheda, Kanaranzi-Little Rock, or Heron Lake districts pay landowners an additional 15%.
7. Developed and implemented a special cost-share program to reduce the amount of sediment, nutrients, and chemicals running off farmland within Nobles and Rock counties. Two years later it was expanded to include Jackson County.
8. Developed special cost-share programs to fund a variety of practices that would demonstrate water quality benefits. Projects, including grassed waterways, critical area plantings, water control structures, vegetative filter strips, terraces, and water and sediment control basins, have been completed.
9. Organized, under the direction of the Water Plan Coordinator, a countywide Environmental Office. The office includes water planning coordination, land use planning and regulation, agricultural inspections, feedlots, solid waste activities and operation of a state certified lab as part of the Department of Health's Safe Drinking Water Program. The

Environmental Office developed a countywide inventory of feedlots, produced a feedlot ordinance, and held workshops, tours, and demonstrations for producers.

10. Implemented surface water testing of Prairie View Golf Course ponds and Lake Okabena in partnership with Minnesota West Community and Technical College, Nobles County Environmental Services, City of Worthington, and Okabena-Ocheda Watershed District.

The Future

Nobles County, Nobles Soil and Water Conservation District and the Kanaranzi-Little Rock and Okabena-Ocheda watershed districts will continue to cooperate with other public and private organizations to improve the water quality in southwest Minnesota. Together they will work to continue to cost-share sealing of abandoned wells. The watershed districts will continue their permitting programs and policies to provide for the orderly management of water. The County will provide for the update of the soil survey, develop a GIS program, facilitate a water testing lab and give assistance to cities completing their wellhead protection plans. Nobles County will continue administration of this Comprehensive Water Management Plan and seek additional funding while Nobles SWCD implements the plan and continues its leadership role in promoting of agricultural BMP's, cost-share and environmental education programs.

Priority Goals

The Advisory Committee, responsible for overseeing this planning process, ranked this water plan's Management Strategies for the upcoming five years in October 2002. The results of the ranking are listed below. A detailed discussion of the Management Strategies can be found in Section VI and the ranking scheme is explained in Section XI.

High Priority Groundwater Quality Protection Management Strategies

- Identify and evaluate unpermitted sites suspected of illegal hazardous waste disposal or storage on a complaint basis.
- Continue the inspection program for commercial salvage yards.
- Continue to provide opportunities for the safe disposal of household hazardous waste and promote hazardous waste disposal opportunities for small businesses.
- Follow the County solid waste management plan and enforce the County solid waste ordinance to ensure compatibility with water management objectives and policies.
- Continue to require municipalities to have curbside pickup of garbage and recyclables.

- Continue the program to educate landowners on the proper application and disposal of agricultural and lawn chemicals, based on established standards, for use on noxious weeds.
- Continue to promote disposal of used chemical containers for agricultural products and provide information on the proper use and disposal for agricultural chemicals.
- Cooperate with the Minnesota Department of Health in the regulation of the construction of new wells according to State codes.
- Continue County abandoned well sealing cost-share program and when possible supplement state grants with local funds.
- Continue support of county water lab and the existing private well water testing program.
- Inspect all individual sewage systems installed by landowners and licensed contractors.
- Investigate all complaints of septic system sites believed to directly discharge into streams, tiles, or ditches.
- Work in an advisory capacity with the cities of Worthington, Adrian and Ellsworth to develop and implement wellhead protection plans.
- Identify areas where ground water is susceptible to pollution and develop plans to protect them.

High Priority Surface Water Quality Protection Management Strategies

- Increase levels of financial and technical assistance to local landowners for agricultural erosion and sediment control practices including waterways, terraces, critical area plantings, conservation tillage, alternative tile intakes, filterstrips, wetland restorations and windbreaks using the state-cost share program, local cost-share programs, state-revolving fund loans and other grants.
- Prohibit the draining or filling of wetlands or waterbodies without compensatory water quality treatment in the same direct subdrainage area.
- Promote the use of BWSR's Reinvest In Minnesota Reserve and the USDA Conservation Reserve Program for land areas contributing significant sediment or nutrient loads to surface waterbodies.
- Provide assistance to watershed districts or lake associations for identifying and procuring cost-share assistance for water quality improvement practices.

- Promote conservation tillage and no-till farming techniques for reduction of cropland erosion and sedimentation.
- Prohibit the encroachment of row crops in County and township road right-of-ways.

High Priority Flooding Prevention and Reduction Management Strategies

- Administer the Wetland Conservation Act (MN Rules Chapter 8420).
- Encourage the use of long-term easement programs or CRP contracts for the restoration of wetlands.

High Priority Public Ditch Maintenance Management Strategy

- Maintain all public ditches in accordance with State law.

High Priority GIS Management Strategies

- Construct a GIS base map.
- Support and seek local, state and federal funding to complete an updated soil survey that can be used by the public in an Internet format and is compatible with GIS software.

High Priority Fish, Wildlife and Recreation Management Strategy

- Provide financial incentives or assistance for wetland and upland habitat restorations.

I. WHY MAKE RULES?

Watershed districts are mandated by the legislature to adopt rules. The legislature has declared that all watershed districts in Minnesota "must adopt rules to accomplish the purposes of the [Watershed District Act] and to implement the powers of the managers." The Watershed District Act separately delineates these "purposes" and "powers."

A. Accomplishing Watershed District Purposes

Pursuant to Minnesota Statutes Section 103D.201, a watershed district may be established for any of the following purposes:

1. To control or alleviate damage from flood waters;
2. To improve stream channels for drainage, navigation, and any other public purpose;
3. To reclaim or fill wet and overflowed land;
4. To provide a water supply for irrigation;
5. To regulate the flow of streams and conserve the streams' water;
6. To divert or change all or part of watercourses;
7. To provide or conserve water supply for domestic, industrial, recreational, agricultural, or other public use;
8. To provide for sanitation and public health, and regulate the use of streams, ditches, or watercourses to dispose of waste;
9. To repair, improve, relocate, modify, consolidate, and abandon all or part of drainage systems within a watershed district;
10. To control or alleviate soil erosion and siltation of watercourses or water basins;
11. To regulate improvements by riparian property owners of the beds, banks, and shores of lakes, streams, and wetlands for preservation and beneficial public use;
12. To provide for hydroelectric power generation;

13. To protect or enhance the water quality in watercourses in water basins; and
14. To provide for the protection of groundwater and regulate its use to preserve it for beneficial purposes.

Each of these listed purposes contemplates either the exercise of regulatory authority, or the construction of capital improvements, or both. While it has been argued that these purposes do not by themselves constitute an express power to exercise regulatory authority, this issue has not been squarely decided by the courts.¹ The legislature has authorized rulemaking to accomplish watershed district purposes, and thus rules which do so should be presumed valid, regardless of whether they also implement an express power of a watershed district.

B. Implementing Watershed District Powers

Watershed districts have the following specific governmental powers authorized by Minnesota Statutes § 103D.335:

1. *General powers.* To the extent necessary for lawful conservation purposes:
 - a. to sue and be sued;
 - b. to incur debts, liabilities, and obligations;
 - c. to exercise the power of eminent domain;
 - d. to provide for assessments and to issue certificates, warrants, and bonds; and
 - e. to perform all acts expressly authorized, and all other acts necessary and proper for the watershed district to carry out and exercise the powers expressly vested in it.
2. *Joint powers.* To enter joint powers agreements;
3. *Acquire and dispose of property from state and federal agencies;*
4. *Data acquisition.* Make necessary or use reliable surveys and hydrologic data;
5. *Cooperate or contract* with governmental or non-governmental agencies;

¹ See In re 1994 and 1995 Shoreline Improvement Contractor Licenses of Landview Landscaping, Inc., 546 N.W.2d 747, 749 (Minn. Ct. App. 1996), *rev. denied* (Minn. June 11, 1996) ("specific purpose" of watershed districts to "regulate improvements by riparian property owners" does not provide express power to license shoreline contractors); Minnehaha Creek Watershed District v. Gayle's Marina Corp., 461 N.W.2d 224, 225 (Minn. 1990) ("specific purpose" to "regulate improvements by riparian property owners" authorizes regulation of dredging through watershed district permits); 451 N.W.2d 907, 908 (Minn. Ct. App. 1990) (purposes of watershed districts furthered by watershed district controls on development which may impact public waters, specifically regulation of dredging).

6. *Perform ditch and watercourse work;*
7. *Water control works.* Acquire, operate, construct and maintain water control works;
8. *Water use and conservation.* Conserve and control the use of water within the watershed district;
9. *Acquire property* by gift, purchase, taking under the procedures of this chapter, or by the right of eminent domain, necessary real and personal property;
10. *Enter Into Contracts* for construction or implementation authorized by law;
11. *Enter Lands* inside or outside the watershed district to make surveys and investigations to accomplish the purposes of the watershed district;
12. *Take over a drainage system* when so directed by a drainage authority;
13. *Sanitation and pollution prevention.* Provide for sanitation and public health and regulate the use of streams, ditches, or watercourses to dispose of waste and prevent pollution;
14. *Borrow Funds* from government agencies or financial institutions;
15. *Prepare floodplain maps* of the lands of the watershed district located in the floodplain of lakes and watercourses;
16. *Control land use and development in the floodplain, greenbelt, and open space areas of the watershed district* in the absence of county or municipal ordinances regulating these matters;
17. *State association membership.* Appropriate necessary funds to provide for membership in a state association of watershed districts;
18. *Enter into contracts* with other governmental bodies for cooperation and assistance;
19. *Projects in other states.* Purchase lease or acquire land or other property in adjoining states for watershed purposes;
20. *Regulate land use and development in the Metropolitan area* under the conditions specified in Section 103B.211, subdivision 1; and

21. *Water resource management activities.* Conduct studies and monitoring of water resources within the watershed and implement resource management programs.

Many of these express watershed district powers do not contemplate the exercise of regulatory authority. A few of these express powers require further amplification or clarification through rules. The rules adopted by a watershed district should be based legally on a specific "purpose" or an express "power," and ideally both.

C. Other Reasons to Adopt Rules

Watershed district rules should not be considered simply a response to a legislative mandate. Rules serve several key functions for your watershed.

1. Rules Implement Your Watershed Plan

Your district's rules establish basic policies for your watershed. Through creating your watershed district, and preparing a water resources management plan, your board of managers has expressed the essential mission and key goals for your watershed.

You may consider the implementation of your watershed district plan to be a "three-legged stool." Some of these goals are best accomplished through constructing capital improvements. Other watershed goals may be achieved simply through public education. The third leg of the stool is the regulatory program expressed through the watershed district's rules.² Your rules reflect important decisions about the types of land use and water-related activities which your watershed district may prohibit or restrain.

2. Rules Guide the Public Through Your Permitting Process

Exercise of control or regulation of land use and water resource activities is implemented through a permitting program. Rules provide the essential function of affording notice and general guidance to the public about the substantive criteria considered by a watershed district board of managers determining whether and under what terms to grant a permit. The rules also provide guidance to the public on the procedures for applying for permits and the enforcement of permit terms and conditions.

3. Rules Legislate General Prospective Policy

Just as the landscape within a watershed is constantly evolving, new policy problems continuously evolve for a watershed district. Some of these problems are best resolved in a case by case approach, based upon unique facts and circumstances. Other problems represent larger,

² Regulatory controls are a required component of the implementation program in a watershed management plan for watershed districts in the Twin Cities metropolitan area. Minn. Stat. § 103B.231, subd. 6; Minn. Rule 8410.0100.

more general policy questions. Sorting through these issues requires a board of managers to determine whether to "legislate" general future policy, or to "adjudicate" by deciding policy issues one case at a time. Although the Minnesota Administrative Procedures Act only applies to state agencies and not to watershed districts, it is instructive to note that all state agencies must follow a public rulemaking process whenever they adopt "any agency statement of general applicability and future effect."

Prospective rulemaking has the advantage of providing wider notice to the public and therefore more public participation in making watershed policy. Ideally, more public participation will provide the board of managers with more information on a particular issue and the implications of particular policy decisions. Rulemaking also allows the board of managers to practice "preventative medicine" by setting the policy agenda and addressing issues early. A policy decision expressed through an adopted rule also will lead to more uniform application of policy, avoiding inconsistencies from case to case.

D. Not All Policy Decisions Are Rules

Some policy decisions are best confined to individual situations, leaving the board of managers to adopt changes gradually within the language of existing rules. So long as the decision does not conflict with the clear terms of the rule, and is supported with facts in the record, making policy through "adjudication" may be prudent and perfectly appropriate.

Other policy decisions do not affect the rights of the public and concern the internal management of the watershed district. Personnel policies, records management, and other internal matters need not be addressed through rules.



State of Minnesota
Department of Finance

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April 17, 2003

To: Senator John Hottinger
Senator Richard Cohen
Senator Lawrence Pogemiller
Representative Steve Sviggum
Representative Jim Knoblach
Representative Ron Abrams

FROM: Dan McElroy
Commissioner

SUBJECT: Supplemental Budget Update #4

The Governor has requested that I forward two new recommendations to his FY 2004-05 proposed budget. The information updates the Governor's budget so you will be able to consider your budget decisions based upon the most current recommendations and updated financial data.

The changes include the following items:

- \$2.0 million recommended for the Mayo/University of Minnesota bioscience partnership, and
- \$2.7 million provided to the Water & Soil Resources Board for local government road wetland replacement.

The net impact of these budget changes reduces the projected ending balance in the Governor's budget for FY 2004-05 by \$4.7 million – from \$10.7 million to \$6.0 million. The revised Governor's general fund budget is summarized below:

FY 2004-5 Budget (\$ in thousands)	<u>Budget</u> <u>Update #2</u>	<u>Changes</u> <u>Update #4</u>	<u>Revised</u> <u>Budget</u>
Balance from FY 2003	\$178.8	\$ -0-	\$178.8
Revenues	28,382.9	-0-	28,382.9
Spending	28,021.0	4.7	28,025.7
Reserves	530.0	- 0 -	530.0
Ending Balance	\$10.7	\$(4.7)	\$6.0

Both of these recommendations are one-time appropriations that do not affect the planning estimates for FY 2006-07.

Revised budget pages reflecting these proposals are enclosed with this letter.

Individual agency staffs, along with Finance executive budget officers, are prepared to answer questions you may have on the changes.

Enclosure

cc: Finance and Appropriation Chairs
Mark Misukanis
Bill Marx

AN EQUAL OPPORTUNITY EMPLOYER

WATER & SOIL RESOURCES BOARD**Change Item: Local Government Road Wetland Replacement**

Fiscal Impact (\$000s)	FY 2004	FY 2005	FY 2006	FY 2007
General Fund				
Expenditures	\$2,700	0	0	0
Revenues	0	0	0	0
Other Fund				
Expenditures	0	0	0	0
Revenues	0	0	0	0
Net Fiscal Impact	\$2,700	0	0	0

Recommendation

The Governor recommends a one-time appropriation of \$2.7 million for the Local Government Roads Wetland Replacement program to finance the states obligation for wetland replacement.

Background

The Local Government Roads Wetland Replacement program is a statutory obligation requiring replacement of wetlands lost to public transportation projects as required under M.S. 103G.222, Subd.1(1). This program supports the "no-net-loss" requirements of state and federal regulations. It benefits local road authorities by relieving them of responsibility for wetland replacement; environmental interests by establishing higher quality replacement sites; and taxpayers by reducing costs and avoiding delays in road improvements.

Without state funding, local governments must pay for this work. That would result in reduced or delayed road projects, a reversal of an agreement with local stakeholders, and it would negate an agreement with the U.S. Army Corps of Engineers (COE) allowing this program to meet federal regulatory requirements. Without this agreement local road authorities would again have to seek individual federal permits and be responsible for wetland replacement.

Approximately 193 acres of wetlands need replacement each year, at an annual cost of \$2.7 million. This amount will finance the backlog of projects that resulted from the veto of the '02 bonding bill appropriation for this program, and provide funding to last until the next bonding cycle. The cost of establishing the wetlands varies widely, from a low of \$2,000 an acre in rural Minnesota, to more than \$20,000 an acre for some projects in the metro area.

Relationship to Base Budget

This program is not funded in the agency's base. The requested amount represents 20% of the Governor's recommended FY 2004 base budget for BWSR.

Key Measures

The state and federal "no-net-loss" requirement will be maintained.

Statutory Change: None

Summary of City of Lakeville Wetland Management Strategies (March 2003)

DRAFT

Classification	Number of Wetlands within Classification	Vegetated Buffer Requirement for Platted Wetlands (+)	Stormwater Management	Sequencing	Mitigation Requirements ^a
Preserve	53	50 feet	Maintenance of existing bounce Pretreat for sediment and nutrients	Sequencing in conformance with WCA.	3:1 ratio (+)
Manage I	74	25 feet for wetlands less than 2 acres 35 feet for wetlands larger than 2 acres	Limit bounce to existing conditions plus 0.5 ft for 2-year storm Pretreat for sediment and nutrients	Sequencing in conformance with WCA.	2:1 ratio
Manage II	143	17 feet for wetlands less than 2 acres 25 feet for wetland larger than 2 acres	Limit bounce to existing level plus 1.0 ft for 2-year storm Pretreat for sediment.	Sequencing in conformance with WCA.	2:1 ratio OR Wetland mitigation fee in-lieu of direct replacement
Utilize	32	17 feet	No limit on bounce. Have been and thus can continue to be used for stormwater management, treatment and Possible hydrologic enhancement of wetland.	Sequencing is provided within Wetland Plan.	2:1 OR <i>1:1 ratio with a fee OR Wetland mitigation fee in-lieu of all direct replacement (-)</i>
Restore	18	25 feet	Limit bounce to existing level plus 1.0 ft for a 2-year storm Pretreat for sediment and nutrients	Sequencing in conformance with WCA.	2:1
South Creek	8	50 feet from centerline of creek 17 feet where wetland extends past 50' centerline. Buffer cannot be averaged	Infiltration provisions provided prior to discharge as per City's South Creek Management Plan	Sequencing in conformance with WCA.	2:1

a) Program must maintain a no net loss of wetlands as required by the Wetland Conservation Act
 (+) Increase in protection from MN Rules 8420 (-) Decrease in protection from MN Rules 8420 *) Appeals will 1st be heard by City internal appeal process

Table V-1. Wetland Management Strategies

Classification	General Scoring/ Percentage ^a	Land Use Considerations	Buffer Requirement ^b	Stormwater Management ^c	Sequencing	Mitigation Requirements	Management Strategy
Preserve	Vegetation: All or ¾ of points Wildlife: >40%	The future surrounding land use was taken into consideration when choosing a management classification when a wetland's functions were scoring between management categories. If the wetland was located in a future greenway corridor, park, or City property, the wetland was placed in a more protective management category than it may have otherwise been placed. If the wetland was located in an industrial or commercial area, it was placed in a less protective management classification.	50	Maintenance of existing bounce for a 2-year storm if feasible; Pretreatment for sediment and nutrients	Impacts allowed only under extreme hardship. Impacts for homes, commercial/ industrial buildings, driveways, parking lots, etc. is not allowed. Sequencing must be in conformance with the WCA.	Replacement at 3:1 ratio with 1.5 acres of NWC minimum and 1.5 acres of PVC maximum.	Actively protect and preserve functions and values of wetlands to the maximum extent feasible. Avoid impacts and changes to hydrology to greatest extent feasible.
Manage I	Vegetation: ½ to ¾ of points. Wildlife: 20-40% Water Quality: 0-70% Flood Attenuation: 0-60%		25 ft for wetlands less than 2 acres; 35 ft for wetlands larger than 2 acres	Limit bounce to existing plus 0.5 ft for 2-year storm if feasible. Pretreatment for sediment and nutrients	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Maintain existing functions and values.
Manage II	Vegetation: ¼ to ½ of points Wildlife: 0-40% Water Quality: >70% Flood Attenuation: >60%		17 ft for wetlands less than 2 acres; 25 ft for wetland larger than 2 acres	Limit bounce to existing level plus 1.0 ft for 2-year storm if feasible. Pretreatment for sediment.	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum. A wetland mitigation fee in-lieu of direct replacement criteria may also be used for mitigation at as determined by the City's discretion.	Maintain existing functions and values. The City will work to provide incentives to developers who improve the functions and values of Manage 2 wetlands.
Utilize	Vegetation: 0 to ¼ of points Wildlife: 0-20% Water Quality: >70% Flood Attenuation: >60%		17	No limit on bounce. Can be used for stormwater management and treatment	Sequencing is outlined within this Plan. Reference to this sequencing must be made in the application, but no additional sequencing is required.	At the City's discretion, replacement at a 1:1 ratio with 0.5 acres of NWC minimum and 0.5 acres of PVC maximum with a fee. A wetland mitigation fee in-lieu of all direct wetland mitigation for utilize wetlands may also be used for mitigation at the discretion of as determined by the City.	Use for stormwater management.
Restore	Vegetation: 0 to ½ points Wildlife: 0 to 20% Field review indicates wetland could be restored		25	Limit bounce to existing level plus 1.0 ft for a 2-year storm if feasible. Pretreatment for sediment and nutrients	Sequencing in conformance with WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Undertake projects/ actions to restore wetland. To promote the restoration of these wetlands, the City will provide incentives to developers to restore these wetlands or undertake restoration as a City project as feasible
South Creek	NA – Pertains to South Creek		50 from centerline of creek (w/ shade spp.), 17 if wetland extends past 50' centerline. Buffer cannot be averaged.	Infiltration provisions provided prior to discharge as per South Creek Management Plan	Impacts allowed only under extreme hardship and must be in conformance with the WCA.	2:1 with 1 acre of NWC minimum and 1 acre of PVC maximum	Manage for trout stream uses (reduce temperature and promote infiltration) as outlined in the South Creek Management Plan

- a) See Section IV for more discussion on scoring and management categories.
b) Buffer implementation: 17 feet of the required buffer will be platted as an outlot. The remaining buffer width can be included as an outlot or included in the lots provided that homeowners are made aware of the wetland buffer within their lot. Public trails or sidewalks that are a maximum of 10 feet in width can be included within the buffer provided the designated buffer width is maintained. Buffers can be averaged provided that a minimum buffer width of half of the required buffer or 17 feet is maintained, whichever is greater. For wetlands that are within the City's property, the City anticipates implementing and maintaining these buffers; however, these buffers will not be platted separately.
c) Existing two-year HWL for wetlands and water bodies are outlined in the City's Stormwater Management Plan.
d) Program must maintain a no net loss of wetlands as required by the Wetland Conservation Act.

post - Subcommittee

Section V

hardship. Filling of edges of these wetlands to accommodate development, such as building pads, driveways, or parking lots etc. is not allowed. Replacement of the wetland's functions and values will be required at a 3:1 ratio with a minimum of 1.5 acres of new wetland credit (NWC) and maximum of 1.5 acres Public Value Credit (PVC). Sequencing is required as per Minnesota Rules 8420.0520 and the management strategy outlined for this category.

Manage 1: Mitigation of wetlands in this category will be at a 2:1 ratio with 1 acre of NWC minimum and 1 acre of PVC maximum for every acre impacted. Sequencing is required as per Minnesota Rules 8420.0520.

Manage 2: Mitigation of wetlands in this category will be at a 2:1 ratio with 1 acre of NWC minimum and 1 acre of PVC maximum for every acre impacted.

A wetland mitigation fee in-lieu of direct replacement criteria may also be used for mitigation. The City will determine if this option is appropriate on a site-by-site basis. The amount ~~and use of this fee will be at the discretion of~~ determined by the City. ~~The City would then~~ The fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project. The City will review its overall achieved wetland mitigation ratio every 5 years to ensure a 2:1 ratio of wetland mitigation is met. Sequencing is required as per Minnesota Rules 8420.0520.

The City will work to provide incentives to developers who improve the functions and values of Manage 2 wetlands.

Utilize: Mitigation of wetlands in this category can be at a 1:1 ratio with 0.5 acre of NWC minimum and 0.5 acre of PVC maximum for every acre impacted. A wetland mitigation fee in-lieu of direct replacement may also be used for mitigation of these wetlands. The City will determine if this option is appropriate on a site-by-site basis. The amount ~~and use of this fee will be at the discretion of~~ determined by the City. ~~The City would then~~ The fee will be used by the City to provide mitigation for these impacted wetlands within 5 years of the project. The City will review its overall achieved wetland mitigation ratio every 5 years to ensure a 2:1 ratio of wetland mitigation is met. The City may require 2:1 replacement if a City mitigation project has not been identified.

House Transportation Finance Bill (HF627): 1st Engrossment

Analysis prepared by BWSR on 4-23-03

Sec. 3 (M.S. 103G.222, Subd. 1)

- **Page 15, lines 19 - 22.** *Summary:* Reduces replacement ratio from 2:1 to 1.5:1 for public transportation projects in the 50 to 80 percent counties (Anoka; Becker; Benton; Chisago; Morrison; Otter Tail; Sherburne; and Todd). See attachment 1 map. *Comment:* *The Administration does not support reductions to the wetland replacement standards and has committed to funding the state obligation to conduct the wetland mitigation on behalf of local government road authorities as provided for in M.S. 103G.222, Subd. 1, item (l) (see page 17, lines 30 - 34).*
- **Page 16, lines 14 - 28.** *Summary:* Allows public transportation authorities to purchase wetland credits at cost from the state for new road projects. *Comment:* *deletes old 1994 appropriation language citation to allow the state to sell credits developed from any funding source. This provision is very similar to part of the consensus alternative language in HF779, 1st Engrossment, page 90, line 21 - page 91, line 2.*
- **Page 16, line 36 - Page 17, line 1.** *Summary:* Allows road authorities to use the streamlined wetland replacement process for projects that are for traffic capacity increases only. Also requires the state (BWSR) to replace (mitigate) impacted wetlands for these projects. *Comment:* *Currently these projects must go through the normal process of project review and approval with mitigation conducted or paid for by the local road authority. Replacement is completed concurrently or prior to the wetland impact. This also results in an initial loss of wetlands until the mitigation is completed over 18 months to 2 years. This change would cost the state more \$'s, which is difficult to estimate accurately, but is expected to be less than 5% (\$100,000). The additional cost has not been approved by the Administration.*
- **Page 17, line 34 - Page 18, line 2.** *Summary:* (i) Exempts already exempt wetlands ("incidental wetlands" and "400 s.f. deminimis") from being replaced by BWSR on behalf of local road authorities (ii) Allows MnDOT and BWSR to enter into an agreement to replace wetlands. *Comment:* *(i) BWSR only replaces wetlands reported by local road authorities as regulated by state or Federal requirements. Exemptions can be claimed by providing evidence and requesting a determination from the local government unit administering the Wetland Conservation Act. (ii) MnDOT and BWSR already have this administrative authority, have previously used it and intend to keep using it where there are mutually beneficial outcomes. Provision appears to be redundant.*
- **Page 19, line 17 - line 19.** *Summary:* Allows 7-county metro wetland impacts to also be replaced within a major watershed that drains into the 7-county metro. Also deletes provision to first look for wetland replacement sites that are closer to the impact site. *Comment:* *Current law requires replacement in the 7-county metro area. See attachment 2 map which shows the expanded area. Although this does not change the mitigation ratio it does significantly expand the geographical area for mitigation of wetlands lost in the metro area. Finding quality wetland restoration sites in the metro area will progressively become more and more difficult in future years. However, at this time, good restoration sites are still available.*

Sec. 54. Page 57, line 10 - line 16. *Summary:* Except for wetland replacement sites, no state agency or SWCD may require planting of native species as part of permit issued to a local government.

Comment: SWCDs do not have permitting authority. In 1995, M.S. 84.964ⁱ established a task force (currently inactive) and policy to promote use of native vegetation. MnDOT has researched and developed cost-effective native seed mix specifications that most road authorities and many others have routinely used and thus they have become a commonly available commodity. There are numerous benefits to using native species including, drought tolerance, habitat and reduced roadside maintenance.

Sec. 34. Page 46, line 20 - line 28. (M.S. 373.29) *Summary:* Counties are exempted from getting any permits, state or local, for work within the right-of-way of existing roads. The county road authority is not relieved of the substantive requirements of statute or rule.

Comment: The breadth of the exemption from securing permits is unclear, but could be significant. Watershed District (M.S. 103D) and DNR Public Waters Work Permits (M.S. 103G) seem to be clearly included. However, it is unclear if other approvals such as licensing, wetland replacement plans, state approvals tied to federal authority, city utility or zoning codes, etc. are included. Having granted local and state agencies a mandate to protect the state's environment and natural resources, but removing a key tool, permitting, clearly reduces the protection standards by relying on solely on knowledgeable and voluntary compliance. Also, the term "substantive" is vague and subject to a wide range of interpretations leading to tremendous inconsistencies. We believe that this provision could result in significant impacts to natural resources.

Alternative Consensus Approach: Many of the objectives behind the proposed language aimed at streamlining road construction project review and approval can be much better accomplished by via general permits, clear and justifiable standards established through an open process and timely and clear communications and a commitment to work in the public's comprehensive best interest on the part of all government agencies. The legislative specifics of the consensus approach are contained in Sections 107-112 of HF779, 1st Engrossment, page 85, line 24 through page 93, line 6. This consensus language was developed by representatives of AMC, MN Rural County Caucus, MAWD and individual Watershed Districts, MnDOT, DNR, PCA and BWSR at a meeting held on April 11, 2003. In addition, and just as significant as the consensus statute amendments, a commitment to address other specific items as part of an updated MOU was made. This work, along with the subsequent rule development, would form the beginning of a cooperative effort to find ways to clear out unnecessary process and other impediments that can delay road construction projects...without harmful consequences to the State's environment and natural resources.

i

84.964 Interagency native vegetation task force.

(a) An interagency task force on native plant conservation is established composed of the commissioners or their designees of the departments of agriculture, natural resources, transportation, and the pollution control agency and the executive director or designee of the board of water and soil resources. The commissioner of natural resources or the commissioner's designee shall chair the task force.

(b) The purpose of the task force is to identify priority conservation needs for native plants and their habitats in the ecological regions of the state, and to coordinate implementation of interagency programs to address those needs. The task force shall also ensure, to the greatest extent practicable, that native plant species and communities are maintained, enhanced, restored, or established on public lands, and are promoted on private lands.

HIST: 1995 c 220 s 64

Attachment #1 - map of WCA Wetland Areas

Attachment # 2 - map of Major Watersheds (81) draining into 7-county metro area

HF627, 1st Engrossment Excerpts

Consensus Alternative Language and MOU plan

- 13.35 Sec. 3. Minnesota Statutes 2002, section 103G.222,
13.36 subdivision 1, is amended to read:
- 14.1 Subdivision 1. [REQUIREMENTS.] (a) Wetlands must not be
14.2 drained or filled, wholly or partially, unless replaced by
14.3 restoring or creating wetland areas of at least equal public
14.4 value under a replacement plan approved as provided in section
14.5 103G.2242, a replacement plan under a local governmental unit's
14.6 comprehensive wetland protection and management plan approved by
14.7 the board under section 103G.2243, or, if a permit to mine is
14.8 required under section 93.481, under a mining reclamation plan
14.9 approved by the commissioner under the permit to mine. Mining
14.10 reclamation plans shall apply the same principles and standards
14.11 for replacing wetlands by restoration or creation of wetland
14.12 areas that are applicable to mitigation plans approved as
14.13 provided in section 103G.2242. Public value must be determined
14.14 in accordance with section 103B.3355 or a comprehensive wetland
14.15 protection and management plan established under section
14.16 103G.2243. Sections 103G.221 to 103G.2372 also apply to
14.17 excavation in permanently and semipermanently flooded areas of
14.18 types 3, 4, and 5 wetlands.
- 14.19 (b) Replacement must be guided by the following principles
14.20 in descending order of priority:
- 14.21 (1) avoiding the direct or indirect impact of the activity
14.22 that may destroy or diminish the wetland;
- 14.23 (2) minimizing the impact by limiting the degree or
14.24 magnitude of the wetland activity and its implementation;
- 14.25 (3) rectifying the impact by repairing, rehabilitating, or
14.26 restoring the affected wetland environment;
- 14.27 (4) reducing or eliminating the impact over time by
14.28 preservation and maintenance operations during the life of the
14.29 activity;
- 14.30 (5) compensating for the impact by restoring a wetland; and
14.31 (6) compensating for the impact by replacing or providing
14.32 substitute wetland resources or environments.
- 14.33 For a project involving the draining or filling of wetlands
14.34 in an amount not exceeding 10,000 square feet more than the
14.35 applicable amount in section 103G.2241, subdivision 9, paragraph
14.36 (a), the local government unit may make an on-site sequencing
15.1 determination without a written alternatives analysis from the
15.2 applicant.
- 15.3 (c) If a wetland is located in a cultivated field, then
15.4 replacement must be accomplished through restoration only
15.5 without regard to the priority order in paragraph (b), provided
15.6 that a deed restriction is placed on the altered wetland
15.7 prohibiting nonagricultural use for at least ten years.
- 15.8 (d) Restoration and replacement of wetlands must be
15.9 accomplished in accordance with the ecology of the landscape
15.10 area affected.
- 15.11 (e) Except as provided in paragraph (f), for a wetland or
15.12 public waters wetland located on nonagricultural land,
15.13 replacement must be in the ratio of two acres of replaced
15.14 wetland for each acre of drained or filled wetland.
- 15.15 (f) For a wetland or public waters wetland located on
15.16 agricultural land or in a greater than 80 percent area,
15.17 replacement must be in the ratio of one acre of replaced wetland
15.18 for each acre of drained or filled wetland.
- 15.19 (g) For a wetland or public waters wetland impacted by a
15.20 public transportation project located in a 50 to 80 percent
15.21 area, the replacement must be in a ratio of 1-1/2 acres of
15.22 replaced wetland for each acre of drained or filled wetland.
- 15.23 (h) Wetlands that are restored or created as a result of an
15.24 approved replacement plan are subject to the provisions of this

15.25 section for any subsequent drainage or filling.

15.26 ~~(h)~~ (i) Except in a greater than 80 percent area, only
15.27 wetlands that have been restored from previously drained or
15.28 filled wetlands, wetlands created by excavation in nonwetlands,
15.29 wetlands created by dikes or dams along public or private
15.30 drainage ditches, or wetlands created by dikes or dams
15.31 associated with the restoration of previously drained or filled
15.32 wetlands may be used in a statewide banking program established
15.33 in rules adopted under section 103G.2242, subdivision 1.
15.34 Modification or conversion of nondegraded naturally occurring
15.35 wetlands from one type to another are not eligible for
15.36 enrollment in a statewide wetlands bank.

16.1 ~~(i)~~ (j) The technical evaluation panel established under
16.2 section 103G.2242, subdivision 2, shall ensure that sufficient
16.3 time has occurred for the wetland to develop wetland
16.4 characteristics of soils, vegetation, and hydrology before
16.5 recommending that the wetland be deposited in the statewide
16.6 wetland bank. If the technical evaluation panel has reason to
16.7 believe that the wetland characteristics may change
16.8 substantially, the panel shall postpone its recommendation until
16.9 the wetland has stabilized.

16.10 ~~(j)~~ (k) This section and sections 103G.223 to 103G.2242,
16.11 103G.2364, and 103G.2365 apply to the state and its departments
16.12 and agencies.

16.13 ~~(k)~~ (l) For projects involving draining or filling of
16.14 wetlands associated with a new public transportation project ~~in~~
16.15 ~~a greater than 80 percent area, public transportation~~
16.16 ~~authorities, other than the state department of transportation,~~
16.17 ~~may purchase credits from the state wetland bank established~~
16.18 ~~with proceeds from Laws 1994, chapter 643, section 26,~~
16.19 ~~subdivision 3, paragraph (c). Wetland banking credits may be~~
16.20 ~~purchased at the least of the following, but in no case shall~~
16.21 ~~the purchase price be less than \$400 per acre: (1) the cost to~~
16.22 ~~the state to establish the credits; (2) the average estimated~~
16.23 ~~market value of agricultural land in the township where the road~~
16.24 ~~project is located, as determined by the commissioner of~~
16.25 ~~revenue; or (3) the average value of the land in the immediate~~
16.26 ~~vicinity of the road project as determined by the county~~
16.27 ~~assessor. Public transportation authorities in a less than 80~~
16.28 ~~percent area may purchase credits from the state at the cost to~~
16.29 ~~the state to establish credits.~~

16.30 ~~(l)~~ (m) A replacement plan for wetlands is not required for
16.31 individual projects that result in the filling or draining of
16.32 wetlands for the repair, rehabilitation, reconstruction, or
16.33 replacement of a currently serviceable existing state, city,
16.34 county, or town public road necessary, as determined by the
16.35 public transportation authority, to meet state or federal design
16.36 or safety standards or requirements, excluding new roads ~~or~~
17.1 ~~roads expanded solely for additional traffic capacity lanes.~~

17.2 This paragraph only applies to authorities for public
17.3 transportation projects that:

17.4 (1) minimize the amount of wetland filling or draining
17.5 associated with the project and consider mitigating important
17.6 site-specific wetland functions on-site;

17.7 (2) except as provided in clause (3), submit
17.8 project-specific reports to the board, the technical evaluation
17.9 panel, the commissioner of natural resources, and members of the
17.10 public requesting a copy at least 30 days prior to construction
17.11 that indicate the location, amount, and type of wetlands to be
17.12 filled or drained by the project or, alternatively, convene an
17.13 annual meeting of the parties required to receive notice to
17.14 review projects to be commenced during the upcoming year; and
17.15 (3) for minor and emergency maintenance work impacting less

17.16 than 10,000 square feet, submit project-specific reports, within
17.17 30 days of commencing the activity, to the board that indicate
17.18 the location, amount, and type of wetlands that have been filled
17.19 or drained.
17.20 Those required to receive notice of public transportation
17.21 projects may appeal minimization, delineation, and on-site
17.22 mitigation decisions made by the public transportation authority
17.23 to the board according to the provisions of section 103G.2242,
17.24 subdivision 9. The technical evaluation panel shall review
17.25 minimization and delineation decisions made by the public
17.26 transportation authority and provide recommendations regarding
17.27 on-site mitigation if requested to do so by the local government
17.28 unit, a contiguous landowner, or a member of the technical
17.29 evaluation panel.
17.30 Except for state public transportation projects, for which the
17.31 state department of transportation is responsible, the board
17.32 must replace the wetlands, and wetland areas of public waters if
17.33 authorized by the commissioner or a delegated authority, drained
17.34 or filled by public transportation projects on existing roads,
17.35 except for those that are exempt under section 103G.2241,
17.36 subdivisions 5 and 9, paragraph (a), clause (5). The department
18.1 of transportation may enter into an agreement with the board to
18.2 replace wetlands according to this paragraph.
18.3 Public transportation authorities at their discretion may
18.4 deviate from federal and state design standards on existing road
18.5 projects when practical and reasonable to avoid wetland filling
18.6 or draining, provided that public safety is not unreasonably
18.7 compromised. The local road authority and its officers and
18.8 employees are exempt from liability for any tort claim for
18.9 injury to persons or property arising from travel on the highway
18.10 and related to the deviation from the design standards for
18.11 construction or reconstruction under this paragraph. This
18.12 paragraph does not preclude an action for damages arising from
18.13 negligence in construction or maintenance on a highway.
18.14 ~~(m)~~ (n) If a landowner seeks approval of a replacement plan
18.15 after the proposed project has already affected the wetland, the
18.16 local government unit may require the landowner to replace the
18.17 affected wetland at a ratio not to exceed twice the replacement
18.18 ratio otherwise required.
18.19 ~~(n)~~ (o) A local government unit may request the board to
18.20 reclassify a county or watershed on the basis of its percentage
18.21 of presettlement wetlands remaining. After receipt of
18.22 satisfactory documentation from the local government, the board
18.23 shall change the classification of a county or watershed. If
18.24 requested by the local government unit, the board must assist in
18.25 developing the documentation. Within 30 days of its action to
18.26 approve a change of wetland classifications, the board shall
18.27 publish a notice of the change in the Environmental Quality
18.28 Board Monitor.
18.29 ~~(o)~~ (p) One hundred citizens who reside within the
18.30 jurisdiction of the local government unit may request the local
18.31 government unit to reclassify a county or watershed on the basis
18.32 of its percentage of presettlement wetlands remaining. In
18.33 support of their petition, the citizens shall provide
18.34 satisfactory documentation to the local government unit. The
18.35 local government unit shall consider the petition and forward
18.36 the request to the board under paragraph ~~(n)~~ (o) or provide a
19.1 reason why the petition is denied.
19.2 Sec. 4. Minnesota Statutes 2002, section 103G.222,
19.3 subdivision 3, is amended to read:
19.4 Subd. 3. [WETLAND REPLACEMENT SITING.] (a) Siting wetland
19.5 replacement must follow this priority order:
19.6 (1) on site or in the same minor watershed as the affected

- 19.7 wetland;
- 19.8 (2) in the same watershed as the affected wetland;
- 19.9 (3) in the same county as the affected wetland;
- 19.10 (4) in an adjacent watershed or county to the affected
- 19.11 wetland; and
- 19.12 (5) statewide, only for wetlands affected in greater than
- 19.13 80 percent areas and for public transportation projects, except
- 19.14 that wetlands affected in less than 50 percent areas must be
- 19.15 replaced in less than 50 percent areas, and wetlands affected in
- 19.16 the seven-county metropolitan area must be replaced in
- 19.17 ~~the affected county or, if no restoration opportunities exist in~~
- 19.18 ~~the county, in another area comprised of the major watersheds~~
- 19.19 ~~that drain into the seven-county metropolitan area county.~~
- 19.20 (b) The exception in paragraph (a), clause (5), does not
- 19.21 apply to replacement completed using wetland banking credits
- 19.22 established by a person who submitted a complete wetland banking
- 19.23 application to a local government unit by April 1, 1996.
- 19.24 (c) When reasonable, practicable, and environmentally
- 19.25 beneficial replacement opportunities are not available in siting
- 19.26 priorities listed in paragraph (a), the applicant may seek
- 19.27 opportunities at the next level.
- 19.28 (d) For the purposes of this section, "reasonable,
- 19.29 practicable, and environmentally beneficial replacement
- 19.30 opportunities" are defined as opportunities that:
- 19.31 (1) take advantage of naturally occurring
- 19.32 hydrogeomorphological conditions and require minimal landscape
- 19.33 alteration;
- 19.34 (2) have a high likelihood of becoming a functional wetland
- 19.35 that will continue in perpetuity;
- 19.36 (3) do not adversely affect other habitat types or
- 20.1 ecological communities that are important in maintaining the
- 20.2 overall biological diversity of the area; and
- 20.3 (4) are available and capable of being done after taking
- 20.4 into consideration cost, existing technology, and logistics
- 20.5 consistent with overall project purposes.
- 20.6 (e) Regulatory agencies, local government units, and other
- 20.7 entities involved in wetland restoration shall collaborate to
- 20.8 identify potential replacement opportunities within their
- 20.9 jurisdictional areas.

46.20 Sec. 34. [373.29] [EXEMPTION FROM PERMIT REQUIREMENTS.]
46.21 Notwithstanding any statute or rule that requires a county
46.22 to obtain a permit to reconstruct or maintain a highway, a
46.23 county that reconstructs or maintains a county or county
46.24 state-aid highway within the right-of-way of an existing county
46.25 or county state-aid highway is exempt from all permits. This
46.26 exemption does not relieve any county from any substantive
46.27 requirement imposed by law or rule other than a requirement to
46.28 obtain a permit.

57.10 Sec. 54. [PLANTING REQUIREMENTS; RESTRICTIONS.]
57.11 (a) No state agency or soil and water conservation district
57.12 may require the planting of native grass seeds or native
57.13 wildflowers as a condition for the issuance of a permit to any
57.14 local governmental unit.
57.15 (b) Paragraph (a) does not apply to grasses or flowers
57.16 planted within replacement wetland acres.

Alternative consensus language for HF1219/SF1202

#1. *This provision provides public transportation authorities advance and post-adoption notice when a watershed district is revising and existing rule or establishing a new rule. This change will provide greater ability for public transportation authorities to know when a watershed district is adopting or revising a rule and assure they have an opportunity to comment.*

103D.341 Rules.

Subdivision 1. Requirement. The managers must adopt rules to accomplish the purposes of this chapter and to implement the powers of the managers.

Subd. 2. Procedure. (a) Rules of the watershed district must be adopted or amended by a majority vote of the managers, after public notice and hearing. Rules must be signed by the secretary of the board of managers and recorded in the board of managers' official minute book.

(b) Prior to adoption, the proposed rule or amendment to the rule must be submitted to the board for review and comment. The board's review shall be considered advisory. The board shall have 45 days from receipt of the proposed rule or amendment to the rule to provide its comments in writing to the watershed district. Proposed rules or amendments to the rule shall also be noticed for review and comment to all public transportation authorities that have jurisdiction within the watershed district at least 45 days prior to adoption. The public transportation authorities shall have 45 days from receipt of the proposed rule or amendment to the rule to provide comments in writing to the watershed district.

(c) For each county affected by the watershed district, the managers must publish a notice of hearings and adopted rules in one or more legal newspapers published in the county and generally circulated in the watershed district. The managers must also provide written notice of adopted or amended rules to public transportation authorities that have jurisdiction within the watershed district. The managers must file adopted rules with the county recorder of each county affected by the watershed district and the board.

(d) The managers must mail a copy of the rules to the governing body of each municipality affected by the watershed district.

Subd. 3. Notification for rule that affects city. A rule or resolution that affects land or water within the boundaries of a city is not effective within the city's boundaries until the governing body of the city is notified.

#2. *This provision would reinstate the ability of a public transportation authority to appeal a permit decision of a Watershed District to BWSR. It would also provide for an expedited hearing when requested by the public transportation authority. The permit decision appeal to BWSR was eliminated in 1995. Also provides for exempt rulemaking authority to quickly establish rules that must be superceded by permanent rules in two years or less. Section 103D.539 for informal resolution of disputes remains unchanged.*

103D.537 Appeals of rules, permit decisions, and orders not involving projects.

- (a) Except as provided in section 103D.535, an interested party may appeal a permit decision or order made by the managers by a declaratory judgment action brought under chapter 555. An interested party may appeal a rule made by the managers by a declaratory judgment action brought under chapter 555 or by appeal to the board. The decision on appeal must be based on the record made in the proceeding before the managers. An appeal of a permit decision or order must be filed within 30 days of the managers' decision.
- (b) In addition to the authorities identified in paragraph (a) a public transportation authority may appeal a watershed district permit decision to the board. The board shall, upon request of the public transportation authority, conduct an expedited appeal hearing within 30 days or less from the date of the appeal being accepted.
- (b c) By January 1, 19972005, the board shall adopt rules governing appeals to the board under paragraph (a) and (b). A decision of the board on appeal is subject to judicial review under sections 14.63 to 14.69. The rules authorized in this paragraph are exempt from the rulemaking provisions of Minnesota Statutes, chapter 14, except that Minnesota Statutes, section 14.386, applies and the proposed rules must be submitted to the members of senate and house environment and natural resource and transportation policy committees at least 30 days prior to being published in the State Register. The amended rules are effective for two years from the date of publication of the rules in the State Register unless they are superseded by permanent rules.

#3. *This provision would establish expressed authority for watershed districts to issue general permits to public transportation authorities and other government agencies. The details of the permit (e.g., notice, pre-design meetings, time of year restrictions, design standards, compliance checks, etc.) would be developed in conjunction with project sponsors and other interested parties.*

103D.345 Permits.

Subd. 6. General Permits. A watershed district may issue general permits for public transportation projects for work on existing roads.

#4. *Allows all public transportation authorities to purchase credits at cost from the state public wetland bank for new projects and projects expanded solely for additional traffic capacity (as contrasted with work on existing infrastructure).*

103G.222 Replacement of wetlands.

(k) For projects involving draining or filling of wetlands associated with a new public transportation project, and for projects expanded solely for additional traffic capacity in a greater than 80 percent area, public transportation authorities, other than the state department of transportation, may purchase credits from the state wetland bank established with proceeds from Laws 1994, chapter 643, section 26, subdivision 3, paragraph (c). Wetland banking credits may be purchased at the least of the following, but in no case shall the purchase price be less than \$400 per acre: (1) the cost to the state to establish the credits; (2) the average estimated market value of agricultural land in the township where the road project is located, as determined by the commissioner of revenue; or (3) the average value of the land in the immediate vicinity of the road project as determined by the county assessor. Public transportation authorities in a less than 80 percent area may purchase credits from the state board at the cost to the state board to establish credits.

There are other specific items that will be part of an **updated statewide MOU** (see original below) to renew the MnDOT, BWSR, MAWD, with the addition of AMC, agreement and address some of the concerns listed by counties and by MnDOT in the recently compiled legislative report.

- A. **Permit Decision Timelines and Criteria.** Establish clear timelines and processes for Watershed District permits, including guidance on categories and criteria for General Permits (per #3 above), emergency authorizations, and permit decision expediency via staff delegation.
- B. **Wetland Mitigation Siting.** Develop guidelines on off-site wetland mitigation location (as distinct from the on-site requirements for water quality, erosion control and stormwater management) as part of Watershed District permitting so that public transportation authorities have a clear expectation of what will be required and can plan their wetland banking projects/options. Watershed districts could identify priority wetland replacement opportunities as part of their watershed management plans (see 103D.401).
- C. **Early coordination procedures.** 1. *Permits.* For example, developing a letter-of-intent-to-issue-permit protocol based on pre-design. The letter would outline the expected standards to secure the permit. 2. *Rules.* Advance notice of rulemaking to public transportation authorities.
- D. **Consistency between adjacent Watershed Districts.** Review rules for consistency for standards and process between neighboring Watershed Districts, with a focus on public transportation projects that will most frequently cross Watershed District boundaries. When appropriate, neighboring Watershed District comparisons will be analyzed as part of Watershed District rule review and comment.
- E. **Accessibility to Watershed District Rules.** BWSR and MAWD will arrange for all Watershed District Rules to be available through their web sites.
- F. **Model General Permits and county or district level MOUs.** Specific models for local modification and adoption would contribute to greater consistency.

existing MOU - 1998

The 1996 Minnesota Legislature explicitly gave watershed districts permit authority over the Minnesota Department of Transportation (MnDOT) for their transportation projects. A strong partnership between watershed districts and MnDOT offices is necessary to insure an efficient and effective permitting and information exchange process for both parties. With this understanding the Minnesota Association of Watershed Districts (MAWD), MnDOT, and the Board of Water and Soil Resources (BWSR) agreed that the goal of preservation, protection and enhancement of water and related land resources, while insuring that the transportation needs of the people of the State of Minnesota are met, would be best accomplished through early coordination and cooperation between watershed districts and MnDOT District/Division Offices.

To assist in achieving the goal of early coordination and cooperation MAWD, MnDOT, and BWSR have jointly developed a model memorandum of understanding for watershed districts and MnDOT District/Division Offices to use. The content of the model memorandum of understanding has been agreed upon by each of the partners at the state level. Its purpose is to provide a framework that commits each partner to a coordination strategy that defines how project information will be exchanged between the partners, how notification for projects will occur, and how disputes will be resolved. Watershed District's that are exercising permit authority over MnDOT transportation projects and the MnDOT District/Division Offices are strongly recommended to enter into a memorandum of understanding using the attached model. Modifications to the memorandum are encouraged to tailor it to fit the needs of individual districts.

Adoption of the memorandum of understanding by the partners will insure that the goals and objectives of both watershed districts and MnDOT will be achieved in an efficient manner, and that conflicts will be avoided or greatly minimized.

C. Woodrow Love, President , Minnesota Association of Watershed Districts

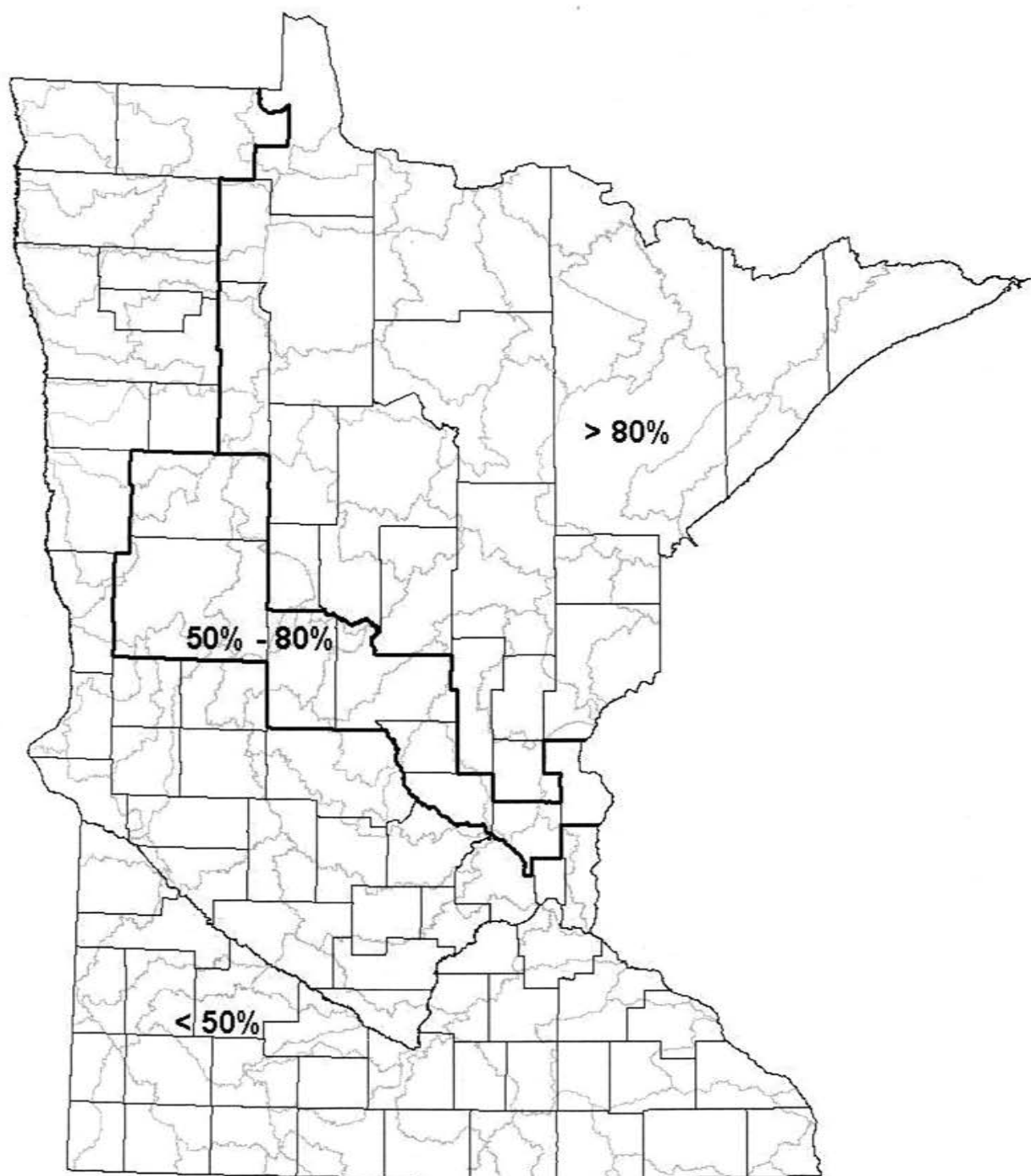
James Denn, Commissioner, Minnesota Department of Transportation

Ron Harnack, Executive Director, Minnesota Board of Water and Soil Resources

HF1219 @ MNDOT 6-22

4/11/03

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Vegetation Establishment & Management Cost Comparisons

Price Comparisons for Mn/DOT Seeding

Mn/DOT Seed Mixes – Mixes are divided into two categories. 1) General Roadside mixes which are used for routine seeding of construction projects. These mixes can consist of native species, non-native forage species and/or non-native turf species. 2) Restoration mixes which are used under special circumstances such as wetland restoration, infiltration ponds, landscaping, etc. When used in a non-roadside area the seeding rates are usually reduced by 50%.

Non-native General Roadside Mix 250GR – Most commonly specified non-native mix = \$152.00/acre. For calculations on the following page the cost of this mix has been rounded to \$150.00 per acre.

Native General Roadside Mix 350NGR – Most commonly specified native grass mix = \$196.00/acre. For the calculations on the following page the cost of this mix has been rounded to \$200.00 per acre.

Native Upland Restoration Mixes – These mixes contain a high diversity of grasses and forbs. They are used for seeding upland buffers of wetland restoration projects, and for other special environmental projects. Cost of these seed mixes ranges from \$250.00 to \$500.00 per acre.

Native Wetland Restoration Mixes – These mixes contain a high diversity of meadow grasses, sedges, rushes and meadow forbs. They are used for seeding the saturated and moist soil zone of wetland restoration projects. Cost of these seed mixes ranges from \$400.00 to \$1,200.00 per acre.

Native Wildflowers (forbs) – Forbs are a natural component of all native plant communities in the state. It is extremely important that at least a small percentage of any native grass mix be forbs. Native legumes fix nitrogen (eliminating the need for fertilizers) and other forbs occupy spaces that noxious weeds would otherwise occupy (eliminating the need for weed spraying). They are also important for wildlife. The cost of forb species is high compared to native grass seed, but the number of seeds per ounce is also very high (tiny seeds) and their relative percentage in a seed mix is very small so the dollar cost per acre for adding forbs is small. Removing forbs from native grass mixes will decrease their long-term sustainability.

Reasons for Using Native Grass Mixes

- Requirements by Federal Government in conjunction with Executive Order 13112 on exotic invasive species. Guidance is given to revegetate using native species.
- Requirements under the Wetland Conservation Act (WCA) and the US Army Corps of Engineers (USACE) permitting process to plant natives on wetland mitigation projects that are funded with trunk highway fund dollars. The federal agencies are implementing Executive Order 13112 by doing this.
- Cost benefit comparison for managing natives vs. introduced forage and turf species on roadsides (see accompanying tables).
- Benefit of natives as alternative "third" crops to farmers at a time when agriculture is depressed.
- Supports a local (Minnesota) industry.
- Water quality benefits – above ground leaves and stems protect the soil surface and deep root systems have the ability to absorb rainfall & minimize run-off.
- Soil erosion benefits – above ground leaves and stems protect the soil surface and deep root systems hold soil in place.
- Habitat benefits – high species diversity is good for wildlife.
- Snow control benefits – natives stand up all winter and catch snow.
- Competitive with noxious weeds – invasive exotic species do not invade healthy native plant communities easily (with the exception of a few "super" exotics such as reed canary grass).

NOTE: The following tables compare the initial start-up cost of establishing various seed mixes and also the short-term and long-term cost of managing the various vegetation types on a per acre basis. The cost of fertilizers, mulching and other erosion control measures is not included as they are the same for all seed mixes used. Comparisons are made between General Roadside non-native mixes, General Roadside native mixes, and Native Restoration mixes. Optimal and minimal best management practices (BMP's) are included in the tabulations. The "real" cost of managing roadsides probably falls in between the optimal and minimal best management costs. If the minimal BMP's are not adhered to the vegetation community will not be sustainable and it will deteriorate resulting in higher long-term weed control costs and ultimately replacement. In some soil types non-native grasses will deteriorate even under optimal best management practices. It can be assumed that Mn/DOT owns and manages approximately 80,000 roadside acres on the trunk highway and interstate systems. It is estimated that approximately 50% of these acres (40,000) could be taken out of mowing by planting native grass & forb mixes. The local road system contains approximately three times the acres that Mn/DOT manages. Therefore, approximately 120,000 acres could be taken out of mowing by planting natives along local roads. Mn/DOT seeds approximately 1,000 acres per year with general roadside native mixes at a cost of about \$200,000-\$300,000. Mn/DOT seeds about 50 acres per year of wetland basins using wetland restoration mixes at a cost of about \$30,000 and about 100 acres per year of upland buffer using restoration mixes at a cost of about \$25,000.

Vegetation Establishment & Management Cost Comparisons

Management Cost Per Acre												
BMP	Mix Type	Seed Cost per acre	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10
Optimal	Non-native general roadside	\$150.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Minimal	Non-native general roadside	\$150.00	\$200.00	\$200.00	\$100.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00
Optimal	Native general roadside	\$200.00	\$200.00	\$200.00	\$105.00	\$105.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Minimal	Native general roadside	\$200.00	\$200.00	\$200.00	\$40.00	\$40.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
Optimal	Native upland restoration	\$500.00	\$200.00	\$200.00	\$105.00	\$105.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Minimal	Native upland restoration	\$250.00*	\$200.00	\$200.00	\$40.00	\$40.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
Optimal	Native wetland restoration	\$1,200.00	\$200.00	\$200.00	\$105.00	\$105.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Minimal	Native wetland restoration	\$600.00*	\$200.00	\$200.00	\$40.00	\$40.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00

*Half seeding rates normally used for these mixes on restoration projects.

Total Cost Summations											
BMP	Mix Type	Sum YR 1	Sum YR 1-2	Sum YR 1-3	Sum YR 1-4	Sum YR 1-5	Sum YR 1-6	Sum YR 1-7	Sum YR 1-8	Sum YR 1-9	Sum YR 1-10
Optimal	Non-native general roadside	\$350.00	\$550.00	\$750.00	\$950.00	\$1,150.00	\$1,350.00	\$1,550.00	\$1,750.00	\$1,950.00	\$2,150.00
Minimal	Non-native general roadside	\$350.00	\$550.00	\$650.00	\$725.00	\$800.00	\$875.00	\$950.00	\$1,025.00	\$1,100.00	\$1,175.00
Optimal	Native general roadside mix	\$400.00	\$600.00	\$705.00	\$810.00	\$825.00	\$840.00	\$855.00	\$870.00	\$885.00	\$900.00
Minimal	Native general roadside mix	\$400.00	\$600.00	\$640.00	\$680.00	\$685.00	\$690.00	\$695.00	\$700.00	\$705.00	\$710.00
Optimal	Native upland restoration	\$700.00	\$900.00	\$1,005.00	\$1,110.00	\$1,125.00	\$1,140.00	\$1,155.00	\$1,170.00	\$1,185.00	\$1,200.00
Minimal	Native upland restoration	\$450.00	\$650.00	\$690.00	\$730.00	\$735.00	\$740.00	\$745.00	\$750.00	\$755.00	\$760.00
Optimal	Native wetland restoration	\$1,400.00	\$1,600.00	\$1,705.00	\$1,810.00	\$1,825.00	\$1,840.00	\$1,855.00	\$1,870.00	\$1,885.00	\$1,900.00
Minimal	Native wetland restoration	\$800.00	\$1,000.00	\$1,040.00	\$1,080.00	\$1,085.00	\$1,090.00	\$1,095.00	\$1,100.00	\$1,105.00	\$1,110.00

Estimated Costs & Management Practices Used For Calculations

Mow cost per acre	\$50.00
Spot spray cost per acre (intensive)	\$100.00
Spot spray cost per acre (extended)	\$50.00
Burn cost per acre**	\$25.00

**5 person burn crew, & equipment to burn
10 acres in one hour

Best Management Practice Optimal

Non-native	2 mow/yr & 1 spot spray/yr
Native	1 mow/5 yrs & 1 burn/5 yrs

Best Management Practice Minimal

Non-native	1 Mow/yr & 1 extended spot spray/2 yrs
Native	1 Mow/5 yrs

SOIL AND WATER CONSERVATION DISTRICT
TECHNICAL ASSISTANCE AD HOC COMMITTEE
FINAL REPORT TO MASWCD AND BWSR

APRIL 16, 2003

PRESENTED BY JOHN JASCHKE, BWSR

TABLE OF CONTENTS

COMMITTEE RECOMMENDATIONS.....	page 2
ESTABLISHMENT AND MEMBERSHIP	page 3
PURPOSE AND GOALS.....	page 5
OPPORTUNITY AND PROBLEM.....	page 6
MEETING DATES AND AGENDA SUMMARIES.....	page 7
EXAMPLES OF SWCD SERVICES COLLABORATION.....	page 8
SUCCESS FACTORS AND BENEFITS.....	page 9
OBSTACLES.....	page 10
OFFERINGS.....	page 11
CLIENTELE.....	page 12
INTERNAL MARKETING/ADMINISTRATIVE IDEAS.....	page 13
SURVEY QUESTION RESULTS.....	page 14
POTENTIAL NAMES FOR SHARED SWCD TECHNICAL ASSISTANCE.....	page 15
OPTIONS FOR ALIGNING SHARED SWCD TECHNICAL SERVICES.....	page 16
CRITERIA TO CONSIDER FOR ALIGNING SHARED SWCD TECHNICAL SERVICES..	page 17
ALTERNATIVE STRUCTURES FOR SHARED SWCD TECHNICAL SERVICES.....	page 18
APPENDIX A ALTERNATIVE STRUCTURES EVALUATION MATRIX.....	page 19
APPENDIX B JOINT POWERS BOARD AREAS.....	page 20
APPENDIX C MASWCD AREAS.....	page 21
APPENDIX D NPEA PROGRAM STAFF DIRECTORY.....	page 22
APPENDIX E NPEA PROGRAM PROJECTS ASSISTED CY01-02.....	page 23
APPENDIX F REPORT COMMENTS FROM CHRIS PARTHUN.....	page 24
APPENDIX G MASWCD BYLAWS RELATED TO AREA ALIGNMENT.....	page 25
APPENDIX H POPULATION CHANGE MAP 1990-2000.....	page 26
APPENDIX I ROLES AND RESPONSIBILITIES.....	page 27
APPENDIX J RECOMMENDATIONS FOR 7-AREA REALIGNMENT MAPS.....	page 33
APPENDIX K JOINT POWERS BOARD 8 LETTER TO RON HARNACK.....	page 36
APPENDIX L MEETING ATTENDEES LIST.....	page 38

RECOMMENDATIONS

1. Revise the NPEA Program (and expand it to include other shared technical services) to "SWCD Technical Services/Centers/Areas" to clarify the identity and expand the future scope of SWCD shared technical expertise.
2. Align MASWCD and SWCD Technical Services Areas, to:
 - a. create a stronger connection to the MASWCD organizational activities
 - b. better market shared SWCD technical expertise internally and externally, and
 - c. consolidate program and Area SWCD governance for efficiency and improved marketability.
3. Modify MASWCD Area boundaries to better address resource-based expertise needs, in consultation with NRCS, recognizing that soil and water conservation work has changed dramatically in the past 30 years due to demographic, geographic, economic, technology and scientific factors. Recognizing the reality of fiscal constraints, it is recommended that reconfiguring the current 7 Areas is more realistic than adding an eighth Area at this time. It was noted that formation of 8 Areas would allow for better resource alignment and representation and could improve certain logistics, and thus should be considered if and when the opportunity presents itself. The recommendations for revising the 7 Area boundaries are as shown in Appendix J. Alternatives A and B were ranked ahead of Alternative C¹.
4. There exist viable alternatives to the formation of JPAs, such as MOAs, to carry out the oversight and management of SWCD Technical Services. Model agreements should be developed to establish the management, oversight, governance structure and communication within the area and to share services between areas. Model agreements, based on the roles and responsibilities outlined in Appendix I, would be modified by each Area to meet their needs. The MOA would spell out: a.) arrangements between member districts, b.) arrangements between member districts and the host district(s)/fiscal agent(s), and c.) sharing of technical services between Areas. Legal consultation will be needed to evaluate the form of the agreement.
5. The State Conservation Technical Assistance Committee (see Appendix I), in consultation with the existing 11 JPBs, shall develop a transition plan to define technical center locations considering revised area boundaries, expected workloads and state and federal funding availability. The transition plan should be implemented over an approximately one-year period. The MASWCD decision on Area alignment is planned for December '03 (see Appendix G). Changes to existing JPAs may require an inventory and transfer of assets.
6. Distribution of BWSR funds directly to the fiscal agent(s) for technical centers/services rather than sent through member SWCDs.
7. Allow for expanded technical services eligibility for BWSR technical assistance grants (formerly, NPEA Grants).
8. Implement provisions of the "SWCD Technical Service Centers and State Conservation Technical Assistance Program Roles and Responsibilities" (see Appendix I).
9. Recommendations for allocation of state funding to accomplish program work between areas and/or between technical centers within areas should be developed by the State Conservation Technical Assistance Committee.

1

At the April 7th, 2003 meeting a straw poll of SWCD representatives (13) preference for area boundary was conducted, with 1 being first preference and 3 last preference (i.e. lowest number indicates highest average preference). The sum and the number of ones, twos and threes ranks for each map were:

Alternative A (modified 7E) – 25 total; 7 - #1's, 0 - #2's, 6 - #3's

Alternative B (modified 7F) – 24 total; 5 - #1's, 5 - #2's, 3 - #3's

Alternative C (modified 7G) – 29 total; 1 - #1's, 8 - #2's, 4 - #3's

SWCD Technical Assistance ad-hoc Committee Establishment & Membership

On June 25, 2002 the MASWCD board passed made a motion requesting BWSR to facilitate a working group of SWCD representatives to focus on the future of how SWCDs provide technical assistance. Discussion items were to include: NPEA program, forestry, wetlands, and federal technical service provider issues.

The MASWCD provided names of two SWCD Supervisors from each of its 7 Areas (see attached map) to serve on the SWCD Technical Assistance ad-hoc committee facilitated by BWSR. The MACDE provided the names of four SWCD employee representatives. The focus of this committee was to develop options and recommendations to maximize future and technical services delivery through SWCDs. A list of all persons who attended at least one meeting is included in Appendix L. The following are the persons selected by the MASWCD and MACDE Boards as representatives and alternates to serve on the SWCD Technical Services ad-hoc committee.

Area I

- Phil Hamre, West Polk SWCD Supervisor
- Gary Johnson, Roseau SWCD Supervisor
- Alternate: Carol Berg, Hubbard SWCD Supervisor

Area II -

- Jerome Flottesmesch, Becker County SWCD Supervisor
- Marv Stangl, Morrison County SWCD Supervisor
- Alternate - George Libbon, Stevens County SWCD Supervisor

Area III

- Merrill Loy, Carlton SWCD Supervisor
- Roland Cleveland, Chisago SWCD Supervisor
- Alternate: Gene Larson, Koochiching SWCD Supervisor

Area IV -

- Russ Schlegelmilch, Carver SWCD Supervisor (Served through December 2002, no longer a Supervisor)
- Chuck Uphoff, Stearns SWCD Supervisor (replaced Russ Schlegelmilch, as of February 2003)
- Ernie Larsen, Anoka Supervisor

Area V

- LeRoy Stensgaard, Pipestone SWCD Supervisor
- Steve Sunderland, Chippewa SWCD Supervisor
- Alternate: Clint Schuerman, Swift SWCD Supervisor

Area VI -

- Dave Trebelhorn, Sibley SWCD Supervisor
- Duane Petrowiak, Martin SWCD Supervisor
- Alternate Ralph Stadick, Brown SWCD Supervisor

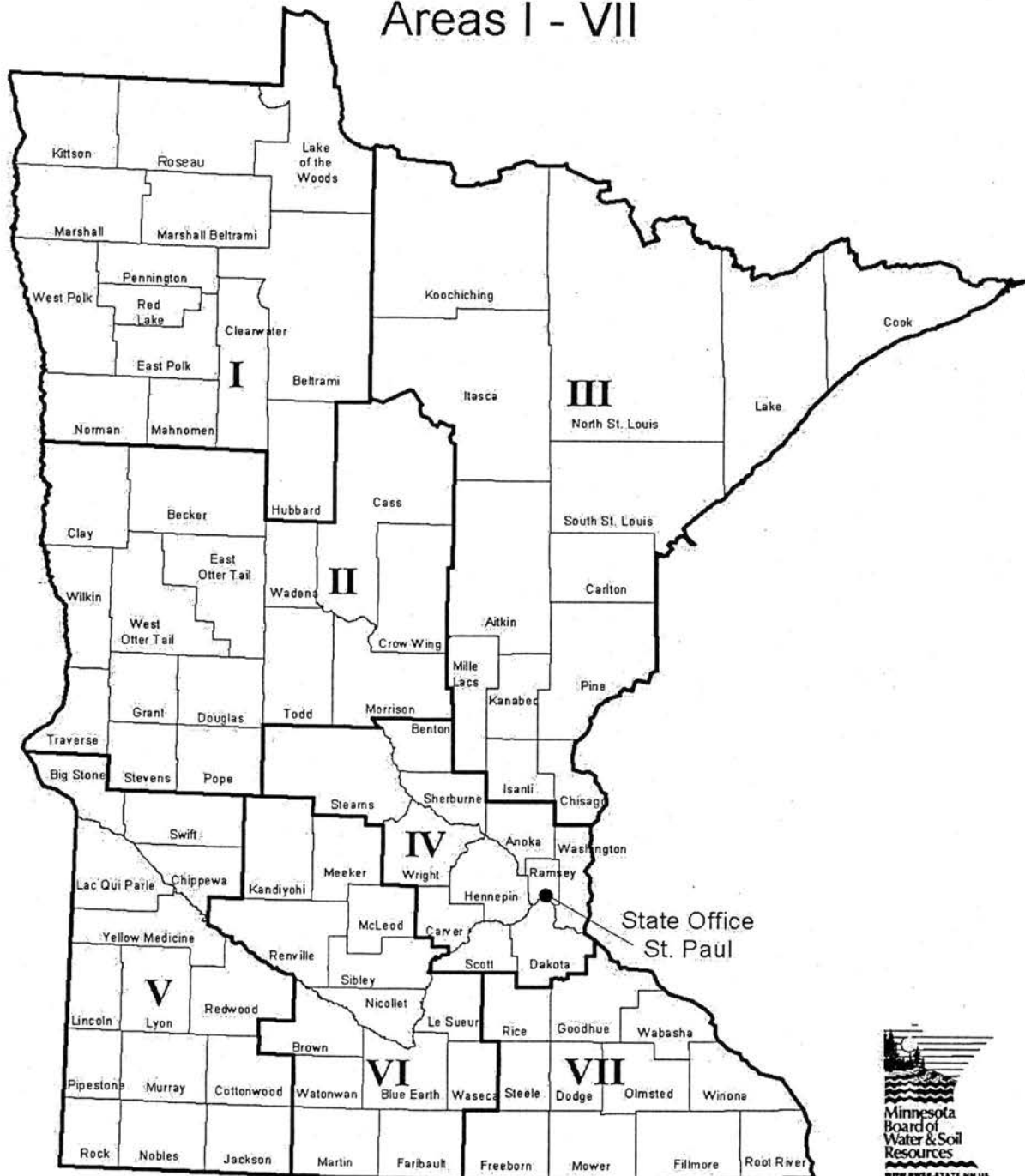
Area VII -

- Jim Gebhardt, Mower SWCD Supervisor
- Clarence Anderson, Rice SWCD Supervisor (Served through December 2002, no longer a Supervisor)
- Alternate Glen Kinneberg, Root River SWCD Supervisor

MACDE representatives are:

- | | |
|---------------|----------------------------|
| Brad Matlack | Carlton SWCD |
| Chris Parthun | Beltrami SWCD |
| Gary Hoffman | Big Stone SWCD |
| Kyle Krier | Pipestone SWCD/MACDE Pres. |

Minnesota Association of Soil & Water Conservation Districts Areas I - VII



SWCD Technical Services Ad Hoc Committee
Purpose and Goals

- I. The focus of this group was to develop options and recommendations to maximize *shared technical services delivery* through SWCDs.
- II. What's the best way to do it? Looking for recommendations to MASWCD and BWSR for how we believe we can best establish a delivery system and scope of technical services for priority conservation activities, now and into the future. The NPEA program provides the experience base for shared SWCD technical expertise.
- III. Who does what? Cover roles and responsibilities of various parties involved:
 1. BWSR
 2. MASWCD
 3. Host district managers
 4. staff
 5. JPB (*if necessary*)
- III. Areas of assessment:
 1. Determine need for regional SWCD technical services.
 2. Design sustainable structure for delivery of regional SWCD technical services.
 3. Develop policy, administrative, technical and financial support mechanisms to sustain regional SWCD technical services.
- IV. Output – Report to MASWCD and BWSR Boards
- V. Timeline – Finalize report no later than April 18, 2003 per BWSR Cost Share Committee direction.

Opportunity

Establishment of expanded/enhanced regional SWCD technical services can set the stage for greater individual SWCD potential.

Problem = "identity"

Generally, the existing example of regional SWCD technical services -- the NPEA JPBs --are not thought of as "of, by, and for" member SWCDs. That is, the shared expertise model is viewed as secondary to the "imposed" state program structure that created the 11 JPBs. The NPEA JPBs are not viewed as part of the MASWCD structure, and there are increasing concerns about creating and supporting added layers of government, as exemplified by the state legislature phasing out funding to regional JPBs. JPB staff sometimes aren't considered "SWCD" staff.

However, the history and benefits of the NPEA JPBs were also discussed. When the NPEA program was created to provide technical assistance for SRF loans and cost-share for nonpoint pollution reduction, JPBs were a readily available organizational tool. The committee that recommended the current structure in 1994 included representatives from SWCDs, MASWCD, MACDE, BWSR and NRCS. Sharing the engineering expertise, sign-off capability and technology were identified as critical needs in 1994, and continued to be critical for SWCD technical services. When the NPEA program was created, the 7 NRCS area offices were expected to be on the chopping block and could not provide timely assistance to SWCDs in all areas of the state, due to increasing federal program demands. (The latter continues to be the case.) The current ad hoc committee members identified the successes of sharing engineering capability, as demonstrated in the biannual NPEA Program Accomplishments Report (during calendar year 2001-2002 there were 1,199 projects or practices assisted), see Appendix E. The committee also noted the low administrative costs of the NPEA program (5%), benefits of local prioritization and delivery, and the increased implementation of federal and state cost-share funding by providing technical assistance.

Areas of Attention (Based on NPEA Experiences)

1. Identity
 - A. State Program, or
 - B. SWCD Shared Resource, or
 - C. Local Government Shared Resource, or
 - D. Local/State Shared Resource.
 - E. Name for service delivery
2. Marketing
 - A. Internal Support
 - B. External Partnerships
3. Structure: items to evaluate
 - A. # of JPBs and boundaries
 - B. alternatives to JPB (which is viewed as an additional unit of government)
 - C. county/watershed/basin alignment
 - D. governance alignment
 - E. consistency across the state but reflecting local priorities
 - F. administrative matters: staffing, supervision, work priorities, revenue sources
4. Funding
 - A. State
 - B. SWCDs
 - C. Other (e.g., partnerships with USDA, client fees)

SWCD Technical Services Ad Hoc Committee
Meeting Dates and Agenda Summaries

October 10, 2002 Agenda

1. Purpose, timeline, etc.
2. NPEA history review
3. Areas of Potential Services: Engineering, Forestry, Wetlands, Federal technical service provider issues
4. Look at other models: pro's and con's
5. Clientele identification
6. Critical issues identification

November 21, 2002 Agenda

1. Review workgroup purpose and goals
2. Review meeting proceedings from last meeting
3. Develop a mission or purpose statement
4. Discuss alternative structures for technical assistance delivery

December 19, 2002 Agenda

1. Review notes from November 21, 2002 meeting
2. Name: Description/ Purpose of / Benefits/ Benefits of SWCD Technical Center
3. Alternatives evaluation using previously developed geographic and administrative criteria.

February 13, 2003 Agenda

1. Question and Answer
2. Report walk through
3. Develop recommendations MASWCD and BWSR
4. Roles and responsibilities (time dependent)

March 4, 2003 Agenda

1. Review recommendations in SWCD Technical Assistance Ad-Hoc Committee 2-21-03 Draft Report.
2. Validate MASWCD and SWCD Technical Assistance Ad-Hoc Committee support to align SWCD Shared Technical Services areas with MASWCD areas for the reasons outlined in the recommendations. Note: Requires MASWCD to provide leadership, marketing, statewide coverage through its area structure.
3. Outline the motions and requests of the MASWCD and BWSR Boards and BWSR Cost-Share Committee regarding area alignment, transition plans, timeline, roles and responsibilities.
4. Roles and Responsibilities review.
5. Evaluate alternatives and develop recommendations (in coordination with NRCS) for a:
 - A. 7 area alignment on existing MASWCD/NRCS boundaries,
 - B. modified 7 area alignment, and
 - C. modified 8 area alignment
6. Develop a transition plan and state funding allocation plan for #5A, 5B, 5C.

March 19, 2003 Agenda

Continue work on #4, #5, #6 from March 4 agenda

April 7, 2003 Agenda

Finish work on #4, #5, #6 from March 4 and March 19 agenda

Examples of SWCD Services Collaboration:

1. BALMM group in southeast MN: 2 SWCD offices spearheaded the collaboration that has existed since October 1999 through a MOU. The two district managers led formation regarding common needs of the Mississippi River and problems in the watershed. MPCA acts as the fiscal agent and BALMM receives their funding from grants.
2. Becker/Hubbard County Groundwater Study: Collaborated with DNR, USGS, and received grant funds, local water planning funds, private money, county allocations, MDA, and contracts. Otter Tail River Watershed Organization: 3 SWCDs working together using BWSR and local water planning funds with a "loose" in formal agreement. Fiscal agent responsibilities are shared.
3. NPEA JPB 4 works with the Buffalo/Red River Watershed District and has very loose agreements on a project by project basis.
4. NPEA JPB 6 used challenge grant funds to hire a technician. The JPB in Chisago and the district agreed to employ the technician for 6 months and at the end the SWCD was able to keep the technician on as their employee.
5. 7 Metro SWCDs/NRCS employed a shoreland stabilization specialist position. They have a MOU amongst the 7 SWCDs to help local districts and landowners complete their projects. The employee also provides educational assistance. The Anoka SWCD acts as host district and provides administrative space and support. Applied for 2 more years of grant funds from NRCS and should be able to continue for 4 years. NRCS funds about 60% and the remaining 40% comes from the SWCDs. There is a formula for usage, depending on the hours worked - the districts are billed for services.
6. Clearwater and Beltrami SWCDs formed an alliance in 1990 via a contract, both donating cash to share a forester. Beltrami was host district for 4-5 years. Now each SWCD has their own forester position. They did not charge a fee for services.
7. RCRCA works with 9 counties strictly on watershed projects. They started with a budget of \$50,000 and currently spend between \$500 - \$600 annually coming from grants. Redwood SWCD is the fiscal agent and RCRCA has between 3-5 employees. The collaboration has worked well, but it's strictly on a watershed basis that has resulted in approximately 20-30% reduction in sediment coming down the rivers.
8. BERBI River Basin: funded by grants, Martin SWCD fiscal agent, represent 9 counties.
9. Lake Superior Association of SWCDs. Districts within in the watershed, no staff, have several contracts for GIS services and consulting forester for stewardship planning and receive grant funds. Fiscal agent responsibilities are shared. No dues, so all work done is via grant money.
10. MN River JPB funded by state and counties, and MN River CREP positions funded by multiple state agencies in partnership with SWCDs.
11. Carver County received money from Met Council to do work in Sibley County for buffers strips.
12. Intra-county Merger: Cass County SWCD formed alliance with Cass county board and merged SWCD with Environmental Services; SWCD employees became county employees.
13. Intra-county Merger: Pipestone SWCD merged with county (and physically with NRCS). Helped secured SWCD funding and they are better able to serve the public and get more accomplished with, and to avoid, feedlot enforcements.

Note: The above list resulted from a short brainstorming exercise – it does not represent an exhaustive list.

Success Factors and Benefits of SWCD Technical Services Collaboration:

1. Needs comes up from landowner; either JPB staff or NRCS staff work together with the SWCD; the public views the two organizations as the same.
2. Benefits for pooling money – gives more and better options when recruiting potential employees.
3. Need good grant writers.
4. Need clear and competent leadership (staff and board) with ability to identify problems, obtain funds, and show results.
5. Need recognized by SWCD board and JPB was able to respond. Individually could not do as much with out that collaboration. Economies of scale.
6. Use state staff as facilitators with local board oversight. Eliminates local administrative costs and entanglements.
7. Collaborations have generated recognition on a federal level and have been successful in obtaining funding.
8. Visibility is enhanced and it could be an incentive for leveraging more funding.
9. Targeting a commonly shared resource that allows districts to target resource issues. Identification of needs and bringing together partners.
10. Learn and stretch into areas that may otherwise have never been done or known. When collaborating with different groups the SWCD (or JPO) becomes the lead agency and it adds to their visibility.
11. Gain more experience and expertise and the public see how agencies are working together for a shared goal - demonstrates efficiencies.

Obstacles to SWCD Technical Services Collaboration:

1. Funding threshold. Need for a base level of funding to make sharing possible.
2. Limited resources. Collaboration takes a lot of people time to make all the administrative connections (more meetings) and the tradeoff is difficult. Do I work with landowner or put projects on the land? Size or volume of threshold must be met to realize the efficiencies.
3. Turf issues. Giving up authority requires a trust that the benefits will come.
4. Risk of losing identity which can be diminished in a collaboration.
5. Partnering should be with those with common interests, problems, responsibilities and goals.
6. There can be a push toward bigger, more uniform, more clarity from top; not what is seen and desired from public - they want access to services.
7. Not always meeting cost effective goal. If goals are not the same, there's the potential for waste.
8. Loss of control - who's in charge when unfavorable decisions being made. Boards are not efficient at administrative functions, e.g. personnel.
9. Termination of agreements and details are difficult to develop. Loose agreements are not thought out completely and it's not clear how to get out of the agreement.
10. JPB's feel district supervisors don't know what the technical staff is doing. Information is not being communicated with the districts as to what the JPB's are doing.
11. Communication gets more complicated. e.g. board to staff; board to board etc.
12. Attitude or lack of vision to see a common goal or the need to enter and then support the collaboration.
13. Lack of ownership by members after the collaboration is created.
14. Inequities among partners. Is everyone getting their fair share of the pie?

Potential Regional SWCD Technical Services Offerings:

1. "Conservation Engineering" (NPEA)
2. Private Forest Management
3. Shared engineering services: road/county engineering
4. Wetland Specialists: WCA and Restoration
5. Watershed Management and Water Quality
6. Flood control; planning, prevention
7. Environmental Education
8. Training Coordination/Sponsorship
9. Public relations; e.g., newsletters, press releases in local paper
10. Nutrient Management Specialist; e.g., Feedlot Specialist, Manure Management, Runoff Management
11. Erosion control plans for road issues, plats, and ordinances
12. Construction site erosion control and Low Impact Development (LID)
13. NPDES construction site review and permitting
14. Technical and grant writers
15. Conservation planner, e.g., grazing lands
16. Technology (externally) – GIS, GPS, land records, web reporting, e-link
17. Administrative (internally) – network and software support, audit and bookkeeping support
18. Conservation Easements Specialist
19. Native grass management; e.g., fires, vegetative management on private lands, burning, native plant intro.
20. Limnologist/Aquatic Biologist
21. Hydrogeologist
22. Lakeshore / shoreline stabilization; erosion control management prevention
23. Soil Scientist; e.g., Septic, Feedlots, crop productivity, hydric soil interpretation, soil history
24. Dispute resolution, mediation related to natural resource issues

Notes to remember: Potential conflicts of interest, competition to private sector

Potential Regional SWCD Technical Services Clientele:

1. SWCDs
2. Cities
3. Developers
4. Counties, e.g., Highway Department, Planning and Zoning, Environmental Offices
5. Townships, e.g., Roads
6. Landowners, e.g., Feedlot Operator; Wetlands, Agronomy
7. Realty Agencies
8. Watershed Districts
9. WMOs
10. Lake Associations
11. Tribal Governments
12. Private conservation organizations, e.g., Pheasants Forever, Ducks Unlimited
13. Other state and federal agencies, e.g., DNR, PCA, NRCS, Health, BWSR, and USFWS, COE
14. State Legislature

Note: Potential clientele 2-14 are all accomplished via contacts and work through/from SWCDs

Internal Marketing / Administrative Ideas

1. Study alternative costs, availability per hour, per type of job, to show that shared SWCD technical services work is the most cost-effective and enhances existing capacity using economies of scale.
2. State focus on capability; local / SWCD focus on priorities.
3. Contracts with private or public organizations, NRCS, etc.
4. Link and compare to NRCS work .
5. Attend meeting state conventions, presentations at area meetings, BWSR agenda, market accomplishments and capabilities to potential clients *based on a common understanding of identity and mission*.
6. Long-term funding solidification would help in the marketing of this program for the future; if the funds are not going to be there some districts run the risk of not being funded.
7. Show results/accomplishments (using pictures) to the members and stakeholders.
8. Market how we work with locals, and lobby for taxing authority and levy.
9. Would it be harder to market and sell under a different name for each JPB?
10. NPEA or similar grants go to individual SWCDs earmarked to be passed on to the Shared Technical Service entity. BWSR → SWCDs → Shared Technical Services entity
11. Make part of the base SWCD allocation for "Conservation Engineering/Technical Assistance".
12. Put as a part of total BWSR General Fund administrative appropriation (rather than grant appropriation) to get inflation increases.

How would you describe the current NPEA JPB model?

Survey Question Results:

Results

4	1	JPB's are SWCD Area Engineering
0	2	Local and state shared resources to share engineering specialist
5	3	Partnership to provide engineering and technical assistance to SWCDs through joint powers agreements
3	4	A technical assistance program to assist SWCDs in the implementation of SRF projects and/or others conservation projects approved by the local joint powers board.
1	5	Cooperative engineering services for SWCDs and other conservation organizations.
0	6	Sharing resources and technology to meet the needs of SWCDs.
1	7	Engineering expertise to assist SWCDs and other agencies.
0	8	Area engineering assistance for local government.
2	9	SWCD shared program for technical services funded by the state.
0	10	Program to provide technical assistance to landowners to apply conservation practices.
0	11	An officially aligned group of SWCDs who share a common interest and commitment in implementing soil and water practices on behalf of the landowner.
1	12	Public funded organization with services that can assist landowners in their conservation efforts.
1	13	BMP implementation practice program for practices needing engineering assistance that is not otherwise provided to SWCDs.
0	14	Engineering assistance to accompany State Cost Share and SRF to get conservation projects implemented
2	15	Conservation engineering carried out cooperatively through SWCDs funded by state government
2	16	Engineering assistance to landowners through the local SWCD's to implement conservation practices.
8	17	Local joint powers boards formed for SWCDs to hire engineering and technical assistance for conservation projects
0	18	SWCD driven program for delivering conservation technical (or engineering) services to public and private landowners.

Note: This list was based on a one-time brainstorming exercise with most of the committee present. It does not reflect merging and refinement of descriptions nor is it anywhere close to statistically valid.

SWCD Technical Services Ad Hoc Committee
Potential Names for Shared SWCD Technical Assistance

- SWCD Engineers
- Conservation Services Center
- SWCD CEA (Conservation Engineering Services)
- Conservation Engineering
- SWCD Technical Center (for broader services)
- SWCD Technical Service Providers
- Conservation Engineering Services Center
- SWCD Conservation Technical Services (Center)
- Conservation District Technical Center
- SWCD Regional Conservation Services (e.g. lakes, trees, funding, GIS)
- Conservation Engineering Services
- Others: Non Point, SRF, Environmental

Naming results summary:

- A. The proposed name list has one thing in common – SWCD. The current JPBs believe SWCDs are the primary provider of technical assistance, as well as the primary clientele for shared technical assistance.
- B. Should associate the group with the word *Conservation* because that's what the group does.
- C. SWCD regional technical center was suggested.
- D. Could replace *SWCD* with the words *Conservation Districts*, only dropping Soil and Water.
- E. Conservation District Regional/Area Technical Center/Services
- F. **SWCD Technical Services / Centers** is the name the group has recommended.

Options for Aligning Shared SWCD Technical Services

- 1a. Watershed Alignment
- 1b. Eco-region (quasi)
2. NRCS Area = MASWCD Areas (7), with same or complimentary offices
3. Let SWCDs create on own by combining their funding and resources. (e.g. school districts)
4. New common name, same JPB boundaries
5. Change the 7 MASWCD areas to match current JPB areas (11)
6. Change JPB and MASWCD boundaries to coincide, with 7 (or another number) of areas.
7. Consolidate or eliminate one or more JPBs
8. Consider boundaries and staffing based on highest priority technical assistance needs - allow for non-engineering specialists with BWSR grant change - Boundaries based on workload formula.
9. Billing among districts for shared services.
10. Use MOAs among SWCDs with host district (rather than JPA/B) and/or host district has grant agreement with BWSR
11. 100% competitive over a multi-year period.
12. Contract for services with private sector
 - a. Independent (Districts)
 - b. Collective (JPB or MOA group)
13. JPB/SWCD grant used to contract/hire other private, local, state, or federal employees.

Criteria to Consider for Aligning Shared SWCD Technical Services

1. TRAVEL DISTANCE – Evaluates the amount of staff time spent traveling - an operating cost. Generally, the larger the work areas of the structure, the more time spent traveling. Can be minimized with good work planning.
2. SHARE TECHNOLOGY – Evaluates the ability of the structure to share technology with and from other available public and private sources.
3. COMPATIBILITY WITH OTHER GOVERNMENTS – Evaluates the ability of the structure to coordinate with and complement other existing units of government to maximize efficiencies and provide service, including, operating as a “technical service provider” (TSP).
4. MANAGEMENT – Evaluates the ability of the structure to perform roles including supervision, clerical, equipment and supplies, space, and administration.
5. OPERATING EFFICIENCY - Evaluates the ability of the structure to minimize operating costs.
6. SERVICE DELIVERY – Evaluates the ability of the structure to provide the desired level of service.
7. STABILITY – Evaluates the ability of the structure to obtain consistent funding and provide long term funding for management and staff.
8. PRIORITY SETTING – Evaluates the ability of the structure to establish workload priorities and deliver assistance as prioritized.
9. STATEWIDE COVERAGE – Evaluates the ability of the structure to provide statewide seamless coverage.
10. RE-ORG COSTS – Evaluates the costs of implementing a structure change from the current 11 JPB areas.
11. PRIVATE CONSULTING - Evaluates the ability of the structure to utilize private consultants.
12. PUBLIC CONSULTING - Evaluates the ability of the structure to utilize public consultants (i.e. hire other governments to provide technical services).
13. ACCOMMODATE NON-ENGINEER SPECIALISTS – Evaluates the ability of the structure to accommodate specialists other than non-point engineering.
14. CLEAR IDENTITY - Evaluates the ability of the structure to be identified as a “special” entity, of, by and for SWCDs.

Alternative Structures for Shared SWCD Technical Services

Goal = Establish the best arrangement for shared SWCD technical services for the long term

1. CURRENT JPB AREAS – This structure is the current 11 NPEA JPB area structure.
2. ECO-REGION ALIGNMENT (QUASI) – This structure would align boundaries to the closest SWCD boundaries that correspond to DNR eco-regions. Eco-regions may be grouped.
3. ADOPT CURRENT NRCS/MASWCD AREAS – Structure boundaries would be aligned according to the seven current NRCS/MASWCD area boundaries.
4. ALIGN WITH ADJUSTED NRCS/MASWCD AREAS – Structure boundaries would be aligned according to modified NRCS/MASWCD area boundaries (7-11 most likely number of new areas).
5. DECREASE NUMBER OF JPBs - Decrease the number of JPBs from 11 to a lower number. JPB boundaries would be re-drawn.
6. WORKLOAD BASED AREAS – Structure areas would be based on the amount of workload within a geographic area. Structure boundaries would be redrawn.
7. COMPETATIVE ALLOCATIONS. – NPEA funding would be based on competitive application for the funds from SWCDs, SWCD groups, or JPBs.
8. WATERSHED ALIGNMENT – This structure would align shared technical assistance boundaries with major watershed boundaries.
9. NO BOUNDARIES – Statewide program with specialists located closest to primary workload.

#2, #6, #7, #8, #9 were rejected without further analysis for practical reasons

Administrative / Governance Options

1. JPBs/Host Districts billing member SWCDs for services provided in their SWCDs.
2. JPBs/Host District contract for services (i.e. don't employ staff directly).
3. Dissolve JPBs and operate under MOAs, including Host SWCDs that employ shared specialists. MOAs could correspond to existing, or modified, MASWCD Areas.
4. JPBs/Host Districts corresponding to existing, or modified, MASWCD Areas.

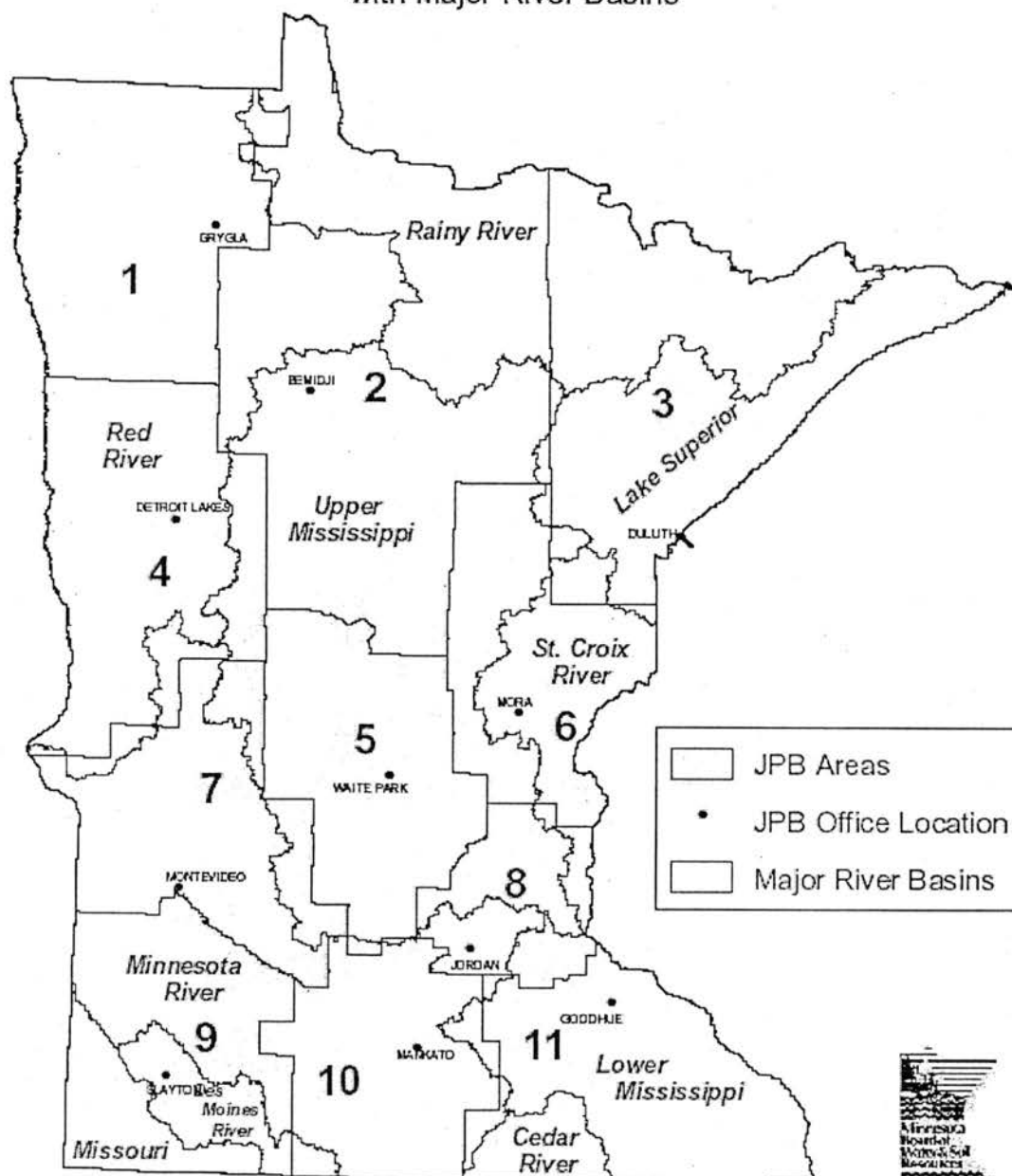
Appendix A

ALTERNATIVE STRUCTURES EVALUATION MATRIX

ALTERNATIVE STRUCTURES FOR TECHNICAL ASSISTANCE DELIVERY: EVALUATION							
	1	2	3	4	5	6	7
CRITERIA	OPTIONS CURRENT JPB AREAS	ECOREGION ALIGNMENT (QUASI)	ADOPT NRCS/MASWCD AREAS	DECREASE # OF JPBs	WORKLOAD BASED AREAS	COMP. BASED ALLOC.	WATERSHED ALIGNMENT
1 TRAVEL DISTANCE							
2 SHARE TECHNOLOGY							
3 COMPAT. W/ OTHER GOV'T.							
4 MANAGEMENT							
5 OPERATING EFFICIENCY							
6 SERVICE DELIVERY							
7 STABILITY							
8 PRIORITY SETTING							
9 STATE COVERAGE							
10 RE-ORG. COSTS							
11 PRIVATE CONSULTING							
12 PUBLIC CONSULTING							
13 ACCOM. NON-ENG. SPEC.							
14 CLEAR IDENTITY							

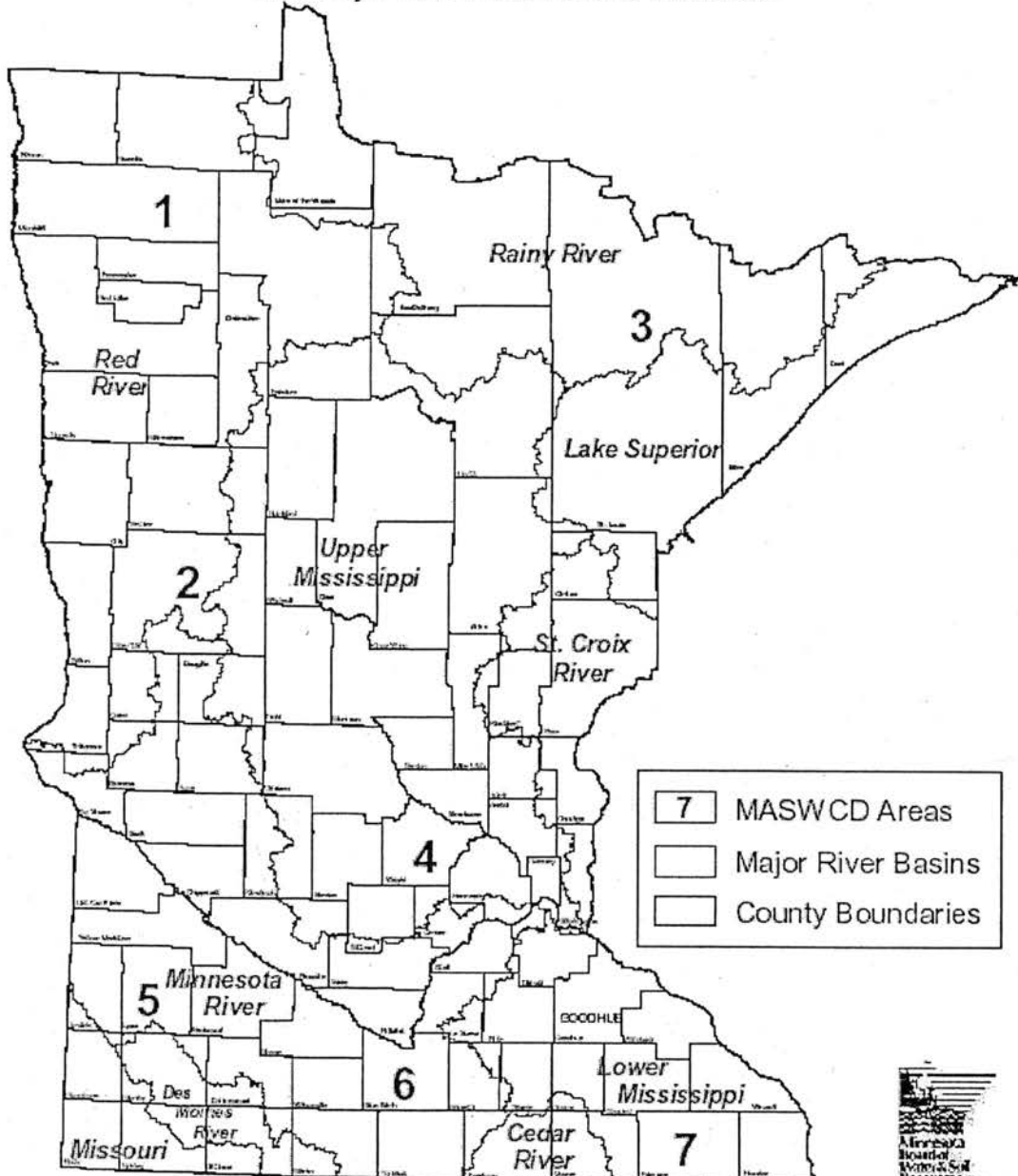
Appendix B

Joint Powers Board Areas with Major River Basins



Appendix C

MASWCD AREAS with Major River Basins and Counties



October, 2002

Appendix D

Nonpoint Engineering Assistance (NPEA) Program: Staff Directory November 18, 2002

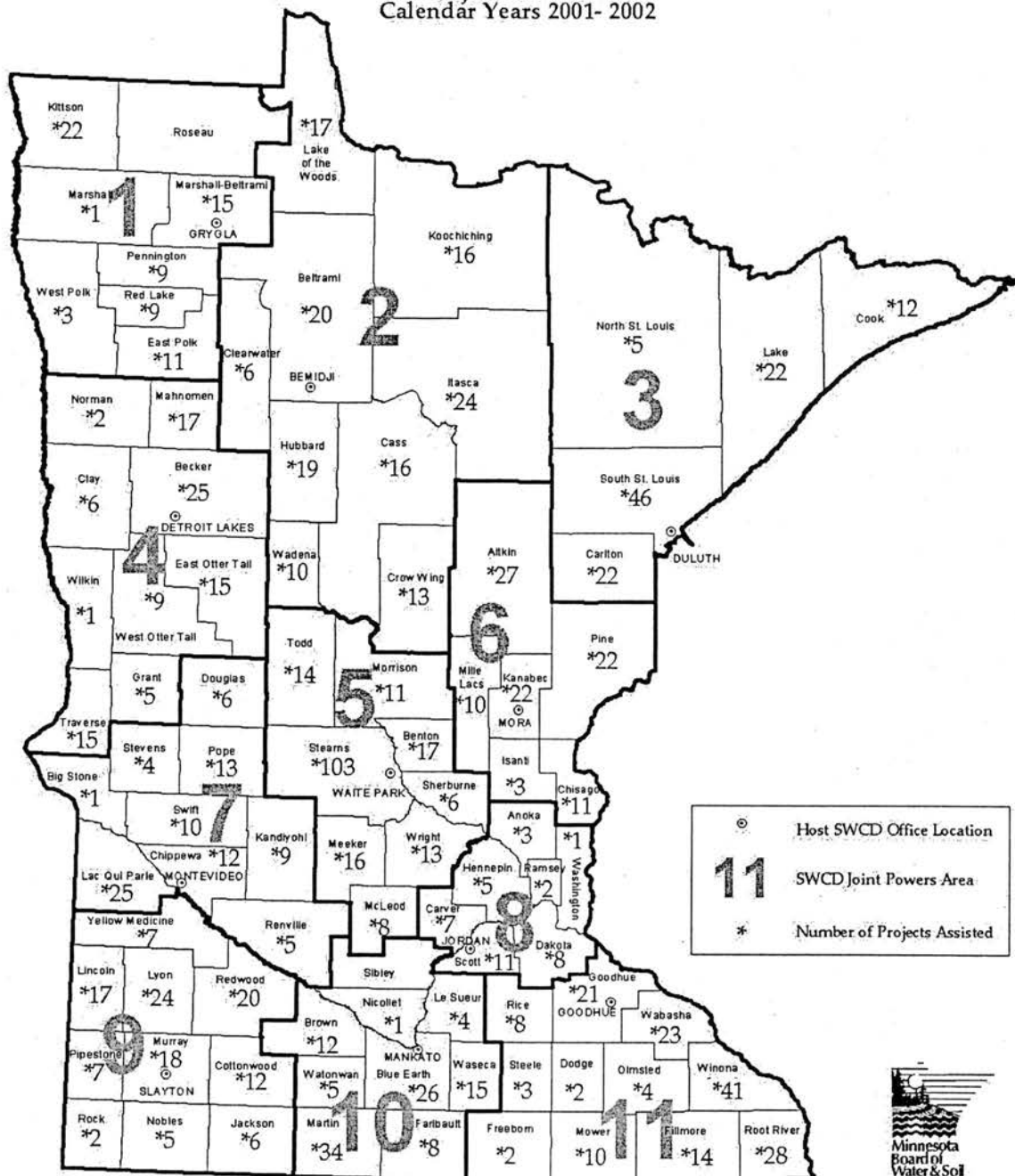
	JPB Name & Host SWCD	Position	Name	Phone Number	E-mail Address
1	<i>Northwestern MN</i> Marshall-Beltrami SWCD 231 E State St. Grygla, MN 56727	SWCD Mgr. Engineer Technician	Cheryl Sistad Jim Hest (vacant)	218-294-6144 218-294-6142 Fax: 218-294-6182	chs1@gvtel.com jah@gvtel.com
2	<i>North Central MN</i> Beltrami SWCD 3217 Bemidji Ave. N Bemidji, MN 56601-4328	SWCD Mgr. Engineer Technician	Chris Parthun Jon Hodgson Chad Severts	218-755-4339 218-755-4341 218-755-4341 Fax: 218-755-4342	cep@mn.usda.gov jdh@mn.usda.gov cjs@mn.usda.gov
3	<i>CCLNS</i> S. St. Louis SWCD 215 N 1st Ave. E, Room 110 Duluth, MN 55802	SWCD Mgr. Engineer Technician	R. C. Boheim Cory Horton Ron Hansen	218-723-4867 218-723-4865 218-723-4865 Fax: 218-723-4731	r.boheim@southstlouisswcd.org cory.horton@southstlouisswcd.org ron.hansen@southstlouisswcd.org
4	<i>West Central MN</i> Becker SWCD 809 8th St. SE Detroit Lakes, MN 56501	SWCD Mgr. Engineer Technician	Brad Grant Al Broyles Jeff Haverland	218-846-7360 218-846-7381 218-846-7381 Fax: 218-846-7380	brad.grant@mn.usda.gov wcmjpb@tekstar.com wcmjpb@tekstar.com
5	<i>Central MN Cluster 5</i> Stearns SWCD 110 2nd St. S., Suite 128 Waite Park, MN 56387	SWCD Mgr. Engineer Technician	Dennis Fuchs Mike Mayer Steve Girard	320-251-6718 320-654-5965 320-654-5965 Fax: 320-251-9171	dennis.fuchs@mn.usda.gov mmm2@mnwaitepar.fsc.usda.gov scg@mnwaitepar.fsc.usda.gov
6	<i>IMPACK 6</i> Kanabec SWCD 214 NW Railroad Ave. Mora, MN 55051	SWCD Mgr. Engineer Technician	Kelly Osterdyk Nicole Sternquist Nick Rydberg	320-679-3982 320-679-3982 320-679-3982 Fax: 320-679-4692	kelly.osterdyk@mn.usda.gov nicole.sternquist@mn.usda.gov nick.rydberg@mn.usda.gov
7	<i>MN River Source</i> Chippewa SWCD County Courthouse Montevideo, MN 56265	SWCD Mgr. Technician Technician	Jean Diggins Glenn Carlson Paul Toft	320-269-2139 320-269-8513 320-269-8513 Fax: 320-269-8593	jld@mnmontevid.fsc.usda.gov gjc@mnmontevid.fsc.usda.gov pst@mnmontevid.fsc.usda.gov
8	<i>Assn. of Metro SWCDs</i> Scott SWCD 7151 W 190th St., Suite 125 Jordan, MN 55352	SWCD Mgr. Engineer Technician	Pete Beckius (use private consultants)	952-492-5425 Fax: 952-492-5422	pbeckius@co.scott.mn.us
9	<i>Southwest Prairie</i> Murray SWCD 2740 22nd St., Suite 3 Slayton, MN 56172	SWCD Mgr. Engineer Technician Technician	Howard Konkol Scot Leddy Mike Skoglund Mike Timmerman	507-836-8933 507-836-6061 507-836-6061 507-836-6061 Fax: 507-836-6697	hjk@mnslayton.fsc.usda.gov sdl2@mnslayton.fsc.usda.gov mgs@mnslayton.fsc.usda.gov mgt@mnslayton.fsc.usda.gov
10	<i>Zone 10</i> Blue Earth SWCD 1160 Victory Drive Mankato, MN 56001	SWCD Mgr. Engineer Technician	Tony Abrahamson Kyle Vogt Greg Schemmel	507-345-4744 507-345-7418 507-345-7418 Fax: 507-345-6036	tony.abrahamson@mn.usda.gov kyle.vogt@mn.usda.gov greg.schemmel@mn.usda.gov
11	<i>Southeast SWCD Technical Support</i> Goodhue SWCD 104 E 3rd Ave. Goodhue, MN 55027	SWCD Mgr. Engineer Technician	Glen Roberson John Adams (vacant)	651-923-5286 651-923-5286 Fax: 651-923-5288	glen.roberson@mn.usda.gov john.adams@mn.usda.gov
	Winona SWCD P.O. Box 39 Lewiston, MN 55952	Engineer	Pete Fryer	507-523-2171 Fax: 507-523-3717	peter.fryer@mn.usda.gov

Appendix E

Nonpoint Engineering Assistance Program

Implemented via Soil and Water Conservation Districts

Projects Assisted
Calendar Years 2001- 2002



January 2003



Appendix F

Comments on the Draft Report of the SWCD Technical Assistance Ad Hoc Committee

Chris Parthun, Committee Member

2-20-03

This proposal is offered in response to the invitation at the close of the Committee meeting on 2-13-03 to provide additional comments on the draft Committee report regarding recommendations for a sustainable SWCD technical services delivery system. I approach this issue, and provide these comments, from three different perspectives – as Host District Manager of JPA 2, as the Beltrami SWCD District Manager, and as a MACDE representative to the Committee.

Technical services to Minnesota landowners by and through SWCDs have achieved a heightened level of delivery in recent years due to the NPEA program. Evolution of this program to a state-wide SWCD technical services delivery system for sharing various types of expertise must recognize the importance of natural resources distribution in Minnesota as a decision-making cornerstone.

The ad hoc committee has identified substantial benefits of aligning shared SWCD technical services governance with MASWCD Areas. I propose that the MASWCD Areas be expanded by one Area to a total of eight, creating a new Area in northern Minnesota. The additional Area would be comprised of the SWCDs currently working in partnership as JPA #2. This proposal has considerable merit for the following reasons:

1. The Committee identified that resource-based boundaries are extremely important when considering sharing technical expertise. JPA 2, located in north-central Minnesota, contains natural resources much different than those in Area 1 (Red River Valley), and Area 3 (Arrowhead Region).
2. JPA 2 SWCDs have experienced a high demand for technical services, resulting in the tremendous growth of, and success in, the NPEA program as the NPEA Accomplishment Reports indicate.
3. This area of Minnesota will continue to experience an increasing need for technical assistance into the future. State demographic projections indicate that the north-central lakes and forests area will continue to experience increased development. MnDOT projections for future transportation and infrastructure requirements corroborate this assessment.
4. JPA 2 SWCDs have demonstrated a strong, committed working relationship and efficient sharing of expertise. This (NPEA) partnership is the only one in the State whose member SWCDs have contributed cash toward the continuation of their NPEA technical services program.

Appendix G

MASWCD bylaws related to Area alignment

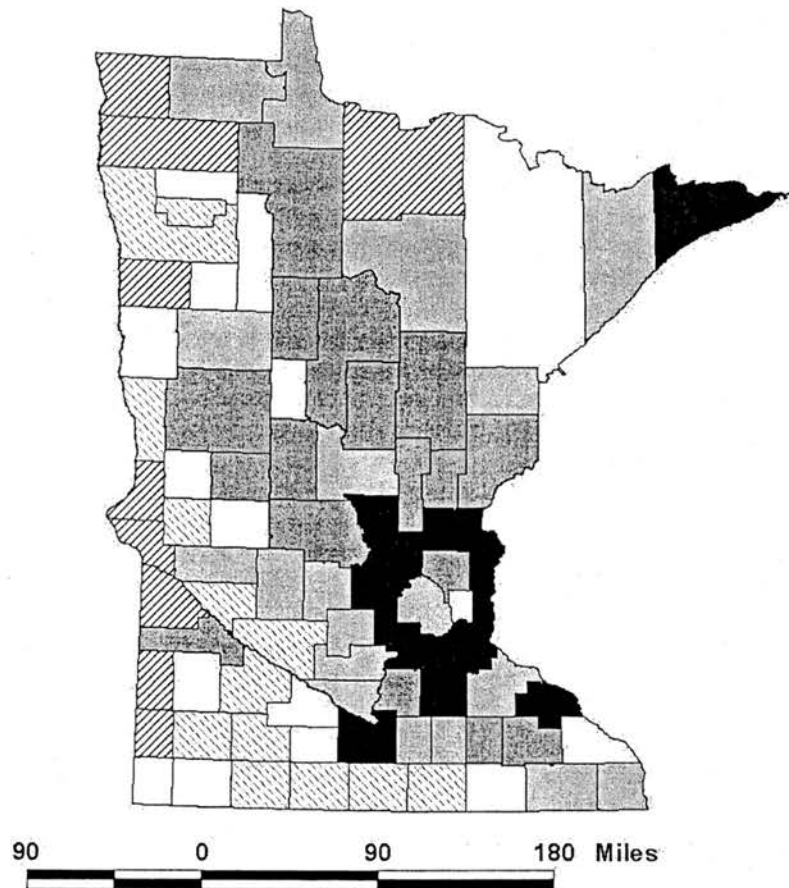
"1.2) AREAS - The Soil and Water Conservation Districts of Minnesota may be divided from time to time by the Board of Directors into not less than five (5) nor more than fifteen (15) Areas of approximately equal number and proximity. Any re-establishment of Areas shall be submitted to, and shall receive a majority vote of, the members present at the annual meeting of the Association before becoming effective."

As far as a timeline for restructuring the boundaries then, we would be looking at needing a final board recommendation to the membership to go out to the SWCDs in September or October (so they have adequate time to think about it, discuss at Area meetings, prior to the December convention vote). So the board would need to approve it in August or September. Prior to that it is whatever amount of time is needed to adequately discuss in order for the board to come to a decision.

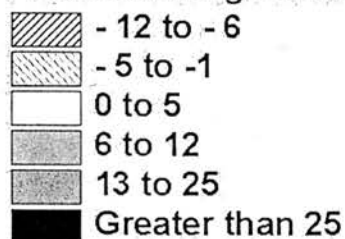
Provided by:
Sheila Vanney, Assistant Director, Minnesota Association of Soil and Water Conservation Districts on 2-28-03

Appendix H

Population Change 1990 to 2000



Percent Change 1990 to 2000



2000 Population Provided by US Census
1990 Population and County Boundaries by MN DNR
Created April 3, 2003 by Melanie Johnson, Beltrami SWCD

Appendix I

SWCD Technical Service Centers and State Conservation Technical Assistance Program **Roles and Responsibilities** 4-10-03, Al Kean, BWSR

Summary of Organizational Structure

State Level

- BWSR
- State Conservation Technical Assistance Committee
- MASWCD

Area Level

- Area Conservation Technical Assistance Committee

SWCD Level

- Host SWCDs (SWCD Technical Service Centers)
- Host District Manager/Administrator
- SWCD Technical Service Center Staff
- Individual SWCDs

State Level

BWSR

General

Administer the state Conservation Technical Assistance Program, and associated partnerships, to provide shared technical assistance through SWCD Technical Service Centers for a wide variety of conservation practices throughout Minnesota, in cooperation with SWCDs, MASWCD, NRCS and other conservation partners. Grant and loan programs assisted include:

- Ag BMP Loan Program
- Clean Water Partnership Loan Program
- State Cost-Share Program
- Feedlot Water Quality Management Cost-Share Program
- USDA Environmental Quality Incentives Program
- EPA 319 Grant Program
- Other state and federal conservation programs, as applicable

Specific

- 1) Lead a standing State Conservation Technical Assistance Committee (State CTAC) to advise the BWSR, MASWCD and SWCDs regarding implementation of the State Conservation Technical Assistance Program, SWCD Technical Service Centers and associated partnerships with NRCS and other conservation partners.
- 2) Administer grants to Host SWCDs to employ engineers, technicians, and/or other technical assistance providers, to assist conservation practice implementation in cooperation with area SWCDs, BWSR, NRCS and other conservation partners.
- 3) Develop policies and procedures necessary for effective administration of the state Conservation Technical Assistance Program, including sharing of state- or federal-funded Technical Service Center staff expertise across area boundaries.
- 4) Work with MASWCD, counties, the Legislature and other entities to provide for ongoing program funding.
- 5) Facilitate coordination with NRCS, MDA, UMES, MPCA, FSA and others involved in financial and technical assistance for nonpoint conservation practice implementation, and associated water and air quality education and regulation.
- 6) Provide technical and administrative consultation and training for SWCD Technical Service Center staff and Host District Managers/Administrators, to the extent feasible.
- 7) Provide for periodic technical and administrative quality assurance reviews for the Conservation Technical Assistance Program.
- 8) Coordinate group purchases for SWCD Technical Service Center technology, such as for computer-aided design software and support, electronic survey equipment, and other software or equipment, as appropriate.
- 9) In cooperation with the State CTAC, develop and implement accomplishment and accountability monitoring procedures for SWCD Technical Service Centers, compile accomplishment reports on a regular basis and provide to Area Conservation Technical Assistance Committees, Host District Managers/Administrators, SWCD Technical Service Center Staff and other conservation technical assistance partners, as appropriate.

State Conservation Technical Assistance Committee

General

Provide advice to the BWSR, MASWCD and SWCDs for development and maintenance of SWCD Technical Service Centers and administration of the State Conservation Technical Assistance Program, including Technical Service Provider partnerships with the NRCS, and other partnerships, as appropriate.

Specific

- 1) Help define and maintain an effective organizational structure for SWCD Technical Service Centers and administrative procedures for the State Conservation Technical Assistance Program.
- 2) Provide advice to help define statewide expertise requirements for the Conservation Technical Assistance Program to maximize capabilities and accomplishments for the state and federal programs served.
- 3) Provide input to the BWSR to help define base and competitive/challenge grant allocation procedures for the State Conservation Technical Assistance Program, including prioritization criteria, as appropriate.
- 4) Membership on the State CTAC will include:
 - a) appropriate BWSR representatives,
 - b) one or two MASWCD representatives,
 - c) one SWCD Supervisor representing each Area Conservation Technical Assistance Committee,
 - d) two Host SWCD Managers/Administrators for SWCD Technical Service Centers, selected by the MACDE,
 - e) appropriate NRCS representative(s),
 - f) other partner and advisory representatives, as appropriate.

MASWCD

General

Provide statewide SWCD leadership to help develop and maintain shared SWCD technical expertise and use of technology.

Specific

- 1) Participate on the State Conservation Technical Assistance Committee described above.
- 2) In cooperation with BWSR, NRCS and other conservation partners, facilitate communication and collaboration between Area SWCD leaders and SWCDs statewide.
- 3) Work with SWCDs, counties, BWSR, the Legislature and other entities to provide for ongoing funding for shared expertise via SWCD Technical Service Centers.
- 4) Provide assistance and referrals to Area SWCD leadership and Host SWCDs for various administrative issues and opportunities. Pertinent resource organizations include, but are not limited to:
 - a) Minnesota Counties Insurance Trust (MCIT): For public official, employee, property and casualty insurance needs; employee benefits; worker's compensation; loss control and risk management; personnel management, open meeting law and data practices act issues; and associated information and education.

Area Level

Area Conservation Technical Assistance Committee

General

Provide leadership at the area level for effective development and operation of SWCD Technical Service Centers, implementation of the State Conservation Technical Assistance Program and other conservation technical assistance partnerships, in cooperation with Area SWCDs, MASWCD Area leaders, NRCS Area Office(s) and other conservation partners within the Area.

Specific

- 1) Provide an Area Supervisor to participate on the State CTAC.
- 2) Develop and maintain working relationships between Area SWCDs and with other conservation partners.
- 3) Work with SWCDs, MASWCD, counties, BWSR, the Legislature and other entities to provide for ongoing funding for shared expertise via SWCD Technical Service Centers.
- 4) Participate in the hiring and performance review of Technical Service Center staff or services, in accordance with an agreement between the Area Conservation Technical Assistance Committee, Area SWCDs and Host SWCD(s).
- 5) Develop and maintain policies and procedures that enable Area SWCD Technical Service Center and Host SWCD staff to effectively prioritize and provide technical assistance to Area SWCDs.
- 6) Lead area level communication and coordination with SWCDs, MASWCD, BWSR, NRCS and other partners for effective development and operation of Area SWCD Technical Service Center(s), including implementation of the state Conservation Technical Assistance Program, federal Technical Service Provider partnerships and other technical assistance partnerships.
- 7) Work with BWSR and the State CTAC to develop and implement accomplishment and accountability monitoring procedures for SWCD Technical Service Centers.

SWCD Level

Host SWCD

General

Serve as an SWCD Technical Service Center for sharing expertise and use of technology, including providing for employment of SWCD Technical Service Center staff or services, in accordance with applicable agreements with the BWSR and Area SWCDs. It is recommended that the Host SWCD also serve as the fiscal agent for the State Conservation Technical Assistance Program.

Specific

- 1) Provide for workspace and support services for SWCD Technical Service Center staff.
- 2) Provide for employment, or services, of an SWCD manager/administrator to fulfill the applicable roles and responsibilities identified below.
- 3) Enable the SWCD manager/administrator and SWCD Technical Service Center staff to provide, or provide for, shared SWCD technical expertise and use of technology.
- 4) Conduct business in accordance with all applicable federal, state and local laws, ordinances, rules and regulations, and the terms of applicable agreements with the BWSR and Area SWCDs.

Host District Manager/Administrator

General

Provide management and administrative services on behalf of the Host SWCD, in accordance with agreements with the BWSR and Area SWCDs, to manage an SWCD Technical Service Center, and to implement the State Conservation Technical Assistance Program, associated Technical Service Provider agreement(s) and other Area conservation technical assistance agreements, as applicable.

Specific

- 1) To the extent authorized by the Host SWCD and applicable agreements with Area SWCDs and the BWSR, provide management and communication services for:
 - a) personnel management for shared Technical Service Center staff including: hiring, probationary period review, work schedules, pay, training plans and records, work plans, performance appraisals, and discipline;
 - b) facilities management including space, purchased services and equipment;
 - c) workload prioritization, in accordance with applicable Area policies and procedures; and
 - d) budget management, including grant application writing and management.
- 2) Provide administrative support for the Area Conservation Technical Assistance Committee, including development of meeting agendas in cooperation with the chairperson, recording and distribution of meeting minutes, and other appropriate support.
- 3) Supervise SWCD Technical Service Center staff and/or services, in accordance with applicable agreements, policies and procedures.
- 4) Provide leadership for effective utilization of shared technical assistance and technology, including management of SWCD Technical Service Center staff workload.
- 5) Provide regular Technical Service Center workload status and accomplishment reports to the Area Conservation Technical Assistance Committee, BWSR and other SWCD Technical Service Center partners, as appropriate.
- 6) Provide, or provide for, appropriate financial management of funds for the SWCD Technical Service Center.

SWCD Technical Service Center Staff

General

Provide effective and efficient technical assistance for a variety of conservation practices, in cooperation with the staff of Area SWCDs, BWSR, NRCS and other conservation partners.

Specific

- 1) Serve as technical consultants to SWCDs, able to perform a wide range of technical assistance roles, including site investigation, alternatives analysis, planning, design, layout and inspection for conservation practices. Generally, individual SWCD staff will serve as project managers and points of contact with conservation cooperators, and SWCD Technical Service Center staff will serve as project technical consultants.
- 2) Serve as trainers, in cooperation with Area SWCDs, NRCS and other conservation partners, via on-the-job and formal classroom methods.
- 3) Provide technical support for various aspects of the SWCD Technical Service Center operations and delivery of technical services to and through SWCDs, as assigned.
- 4) Supervise other SWCD Technical Service Center staff, as assigned.

Individual SWCDs

General

Work with conservation cooperators, SWCD Technical Service Center staff, state and federal partners, private consultants and other conservation partners to provide technical and financial assistance for conservation practice site investigation, planning, design, construction / implementation, monitoring and reporting.

Specific

- 1) Provide a Supervisor to participate on the Area Conservation Technical Assistance Committee.
- 2) Lead conservation program management within the SWCD including:
 - a) marketing conservation and building working relationships with conservation cooperators, based on good understandings of available technical and financial assistance programs and cooperator needs;
 - b) identification of conservation needs and priorities of the SWCD, based on local resource management plans;
 - c) technical and financial administration of delegated state and/or federal programs;
 - d) grant writing and management;
 - e) serving as spokespersons for conservation needs, opportunities, priorities and actions within the SWCD.
- 3) Serve as project manager for conservation practice implementation including:
 - a) coordination of technical and financial assistance with provider(s) and conservation cooperators;
 - b) providing a wide variety of assistance, as necessary, to manage conservation projects from start to finish.
- 4) Provide in-house technical assistance to the extent of SWCD capabilities.
- 5) Develop and maintain technical assistance capabilities through training and conservation project implementation partnerships with SWCD Technical Service Center, NRCS and BWSR staff, other conservation partners and private consultants.

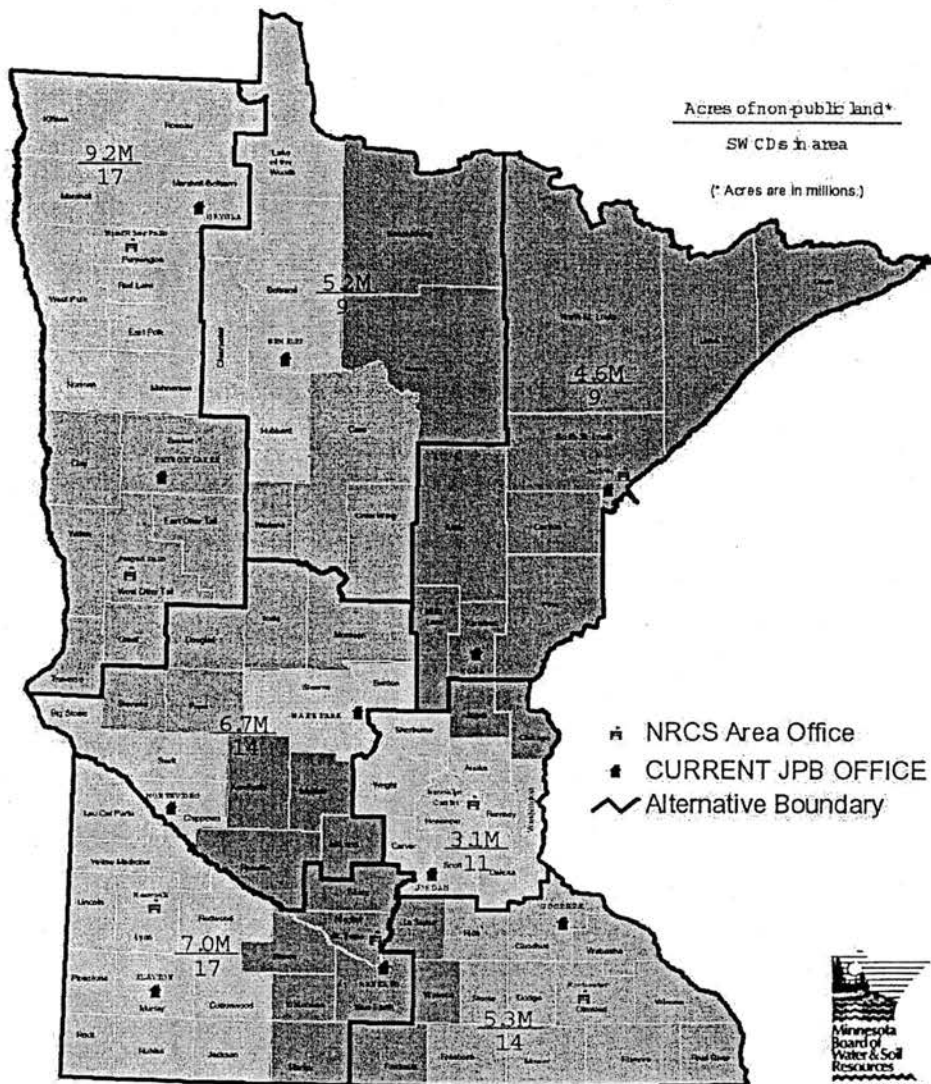
Appendix J –

Recommendations for 7-Area Realignment

SWCD Technical Service Centers Alternative Areas

(Current NRCS/MASWCD areas are shaded)

Alternative A



March, 2003

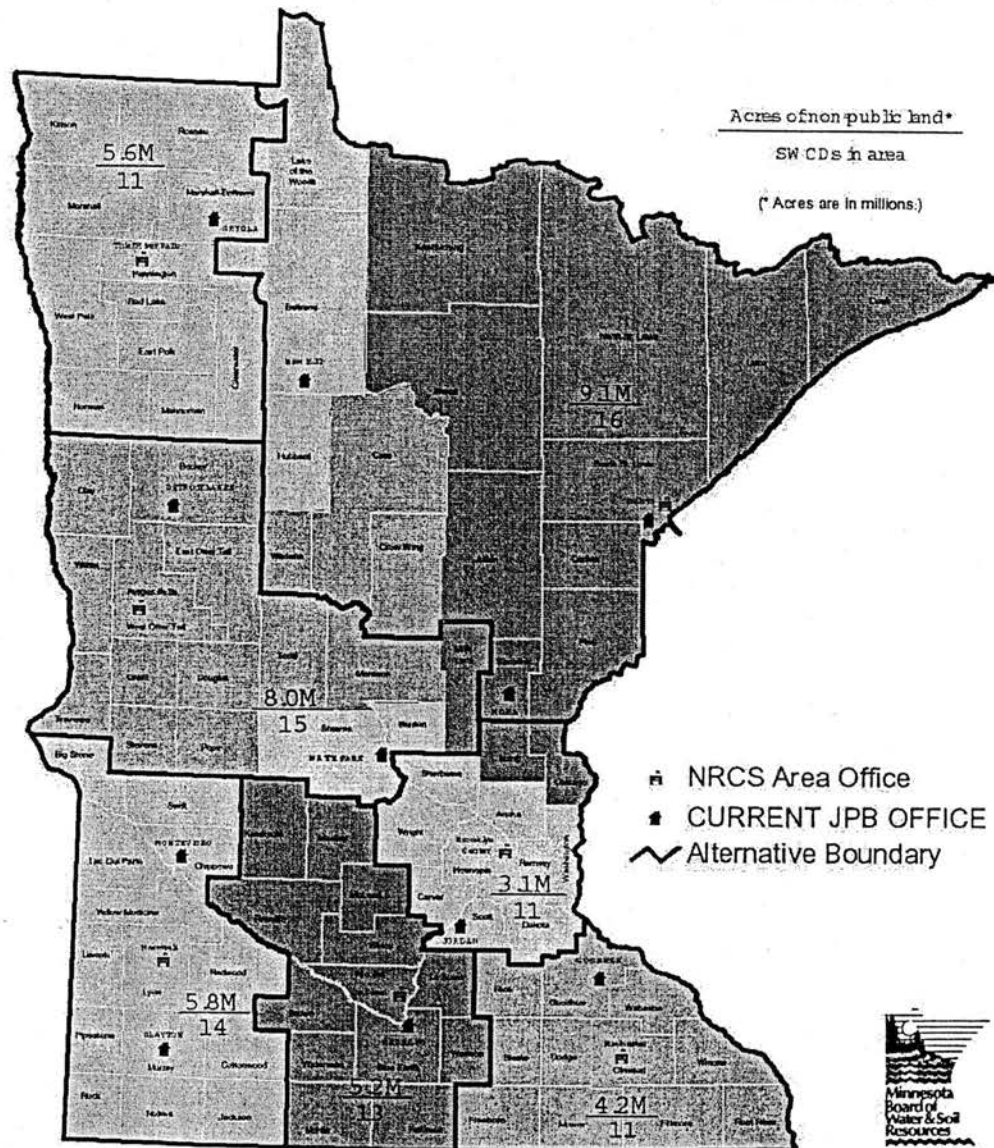


	PROS	CONS
1	7 technical centers, rather than 8 as needed for Alt. B and Alt. C	Not NRCS Area aligned
2	More equal-sized geographic areas	Many changes for everyone, Unequal number of districts per area (9-17 SWCDs per area)
3	Keeps Otter Tail River, which doesn't have a watershed district, together	Uneven workload if based on traditional Ag work for Farm Bill
4	Allows for greater non-traditional work	Doesn't keep the southern region (specifically Area VI / JPB 11) aligned with their primary river basins
5	Red River basin watershed together	Not be easy to divide to 8 areas later

SWCD Technical Service Centers Alternative Areas

(Current NRCS/MASWCD areas are shaded)

Alternative B



March, 2008

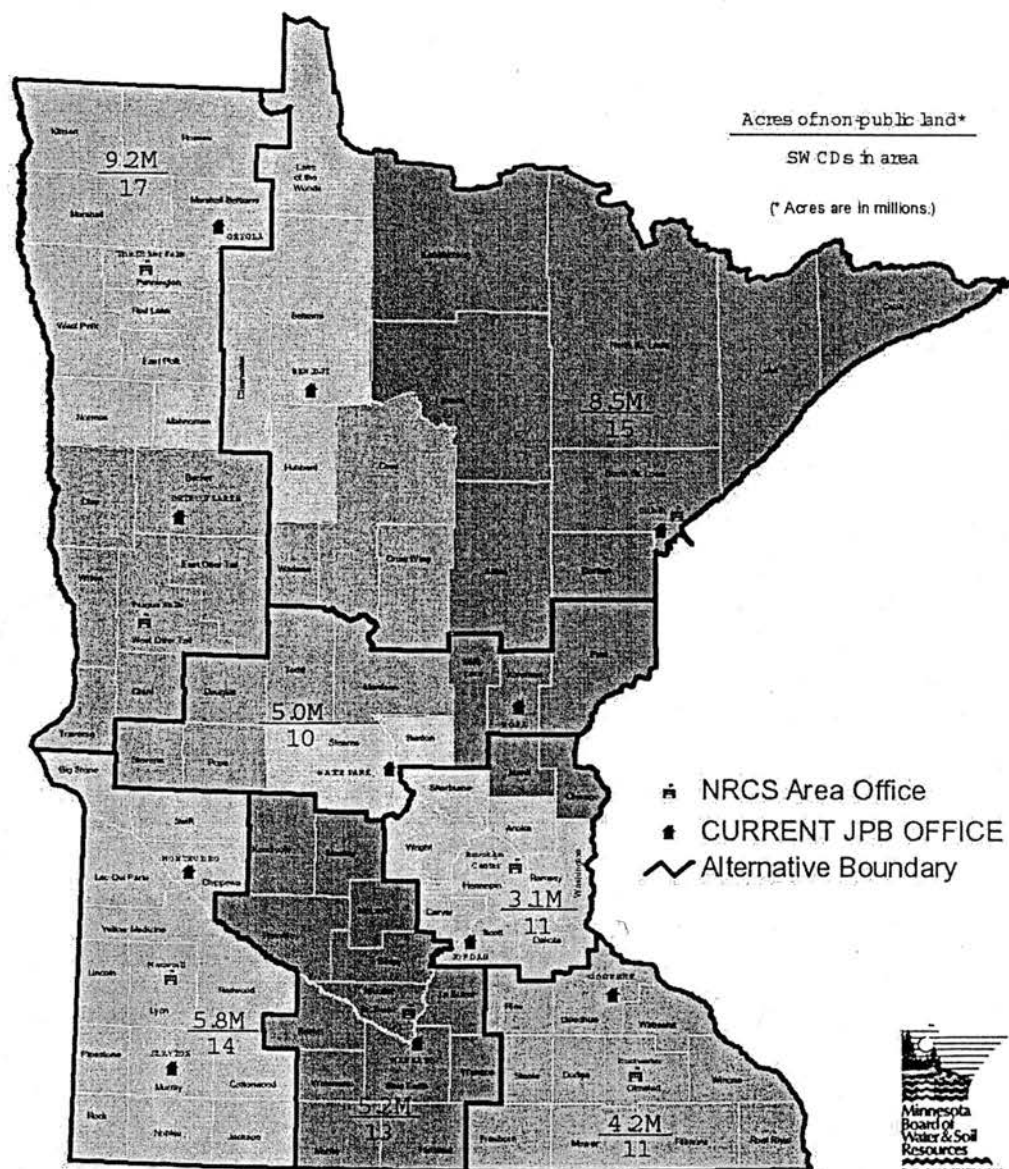
	PROS	CONS
1	Aligns with current NRCS boundaries and area offices	Huge area in northeast potentially offset by 2 service centers
2	More resource-based in north	Split of Red River Valley Watershed
3	Fairly equal number of districts per area (11-16 SWCDs per area)	
4	Not too many shifts	
5	Keeps Otter Tail watershed together	
6	Easier to divide into 8 technical centers and possibly 8 areas in future	

SWCD Technical Service Centers

Alternative Areas

(Current NRCS/MASWCD areas are shaded)

Alternative C



March, 2003

	PROS	CONS
1	Better watershed alignment in northwest and southeast	2 large north regions would need at least an 8 th technical center in the middle
2	Fewer overall changes than Alternative A	Somewhat greater variation in number of SWCDs per area (10-17 per area)
3	More resource oriented boundaries in northern part of state	Doesn't align with current NRCS

**Association of
Metropolitan
Soil and Water
Conservation
Districts**



March 24, 2003

Ron Harnack
Board of Water & Soil Resources
1 Water Street W., Ste. 200
St. Paul, MN 55107

Dear Mr. Harnack:

I am writing on behalf of the Joint Powers Area (JPA) 8 of the Non-Point Engineering Assistance Program (NPEAP). The Association of Metropolitan Soil & Water Conservation Districts (AMSWCD) uses existing authority under their joint powers agreement to implement the NPEAP since JPA 8 encompasses the same geographical boundary.

Pursuant to action taken at the January 29, 2003 AMSWCD Board meeting, we are providing comment on the proposed reductions and reorganization of the NPEAP. We appreciate the support of the NPEAP by the Board of Water and Soil Resources (BWSR) and the flexibility provided to the JPA 8 in contracting for outside engineering services. For the past few years, the JPA 8 has been using NPEAP funding to contract for outside engineering services through the Scott Soil & Water Conservation District (Scott SWCD) who serves as the fiscal agent. The AMSWCD has developed criteria for approving NPEAP funding requests. Projects range from traditional feedlot water quality improvements to stream bank stabilization projects. Under our current flexible structure, we have been able to implement more non-point pollution prevention projects at less cost than we were able to when we retained staff.

We are aware of the work of the BWSR ad hoc technical assistance group and other groups who have been formed to provide advice for future implementation of the NPEAP. We appreciate the BWSR interest in receiving comment and therefore, provide the following:

1. We are aware of the proposed action of BWSR to reduce the number of NPEAP JPAs from 11 to 7. We recognize that this will increase funding for the 7 JPAs;
2. We support this change if the JPA 8 would remain or expand to reflect an increased metropolitan service region and can continue contracting for engineering services;
3. We have concerns about the use of MASWCD areas, and/or area meetings, as the JPA authority for distribution of funds. MASWCD areas function as representative components of an association. They are based on representation of one person in attendance equals one vote for policy resolutions for the state association. The JPAs are based on one member SWCD equals one vote for program authority and the member

Districts elect a representative to act on their behalf. . The current MASWCD areas are remnants of partner organizations' previous organizational structure and may not reflect current needs or soil & water concerns;

4. The current MASWCD areas should not be used as JPAs. It will take significant effort to rewrite Area representative bodies into entities with JPA authority. Such a change in area structure will not likely occur by July 1, 2003 (the start of the next fiscal year);
5. A transition of reduced funding for the current 11 JPA through 1/1/04 may help provide time for effective implementation of a 7 JPA structure;
6. A thorough program review should be based on JPA structure needs rather than on the need to retain JPA engineering staff employment.

In general, we would support changes that reflect JPA 8 concerns. Such a change could include the addition of Chisago, Isanti or Wright SWCDs to the JPA 8. We would like to retain the current methodology of service through the use of contracts and Scott SWCD as the fiscal agent for administration.

We would like to be involved in the discussion how to reorganize this important project and are willing to provide any further suggestions in response to any questions or comments you may have.

Sincerely,



Rick Hansen, Chair
AMSWCD

Appendix L

Persons who attended at least one meeting

ERNIE LARSEN	ANOKA SUPERVISOR
OWEN KNUTSON	AREA 11 JPB CHAIRPERSON
JEROME FLOTTEMESCH	BECKER SWCD SUPERVISOR
CHRIS PARTHUM	BELTRAMI SWCD
GARY HOFFMAN	BIG STONE SWCD
RALPH STADICK	BROWN SWCD SUPERVISOR
AL KEAN	BWSR, CHIEF ENGINEER
WAYNE ZELLMER	BWSR, GRANTS COORDINATOR
MICHELLE LEWIS	BWSR, GRANTS SPECIALIST
JOHN JASCHKE	BWSR, LAND AND WATER SECTION ADMINISTRATOR
BRAD MATLOCK	CARLTON SWCD
MERRILL LOY	CARLTON SWCD SUPERVISOR
RUSS SCHLEGELMILCH	CARVER SWCD SUPERVISOR
STEVE SUNDERLAND	CHIPPEWA SWCD SUPERVISOR
ROLAND CLEVELAND	CHISAGO SWCD SUPERVISOR
PAUL KRABbenhOFT	CLAY SWCD
CAROL BERG	HUBBARD SWCD SUPERVISOR
DUANE PETROWIAK	MARTIN SWCD SUPERVISOR
SHEILA VANNEY	MASWCD, ASSISTANT DIRECTOR
LEANN BUCK	MASWCD, EXECUTIVE DIRECTOR
MARVIN STANGL	MORRISON SWCD SUPERVISOR
JAMES GEBHARDT	MOWER SWCD SUPERVISOR
KYLE KRIER	PIPESTONE
LEROY STENSGAARD	PIPESTONE SWCD SUPERVISOR
CLARENCE ANDERSON	RICE SWCD SUPERVISOR
GLENN KINNEBERG	ROOT RIVER SWCD SUPERVISOR
GARY JOHNSON	ROSEAU SWCD
PETE BECKIUS	SCOTT SWCD
CHUCK UPHOFF	STEARNS SWCD SUPERVISOR
CLINTON SCHUERMAN	SWIFT SWCD SUPERVISOR

**BOARD OF WATER AND SOIL RESOURCES
COMMITTEES
April 22, 2003**

ADMINISTRATIVE ADVISORY COMMITTEE

Membership:	Lee Coe, chair	citizen
	Paul Krabbenhoft	soil and water conservation district
	Dwain Otte	soil and water conservation district
	Darrell Bruggman	county commissioner
	Jerome Deal	watershed district
	Ron Harnack	staff support
	Mary Jo Anderson	staff support

Responsibility:

The administrative advisory committee consists of the Board's chair and vice-chair and the chairs of the Board's standing subcommittees. The administrative advisory committee will make evaluations and recommendations to the Board on various Board issues including ethics; expenses/per diem; bylaws; and legislative platforms and strategies. The Administrative Advisory Committee will act as the personnel committee for personnel actions relating to the board's executive director.

Meetings:

The committee will meet at the call of the chair.

COST-SHARE/SOIL CONSERVATION COMMITTEE

Membership:	Dwain Otte, chair	soil and water conservation district
	Paul Krabbenhoft	soil and water conservation district
	Jack Frost	watershed district
	Ginny Imholte	watershed district
	Clair Nelson	county commissioner
	Char Kahler	citizen
	Karen Harder	citizen
	Victor Ormsby	soil and water conservation district
	Perry Aasness	Department of Agriculture
	Lisa Thorvig	Pollution Control Agency
	Wayne Zellmer	staff support

Responsibility:

The committee is responsible for reviewing cost-share, non-point engineering and general services allocation policies and rules and making recommendations to the Board.

Meetings:

The committee will meet at least three times a year, once prior to the June allocation of cost-share (feedlots, general and special projects); non-point engineering; RIM Reserve and general services grants.

DISPUTE RESOLUTION COMMITTEE (DRC)

Membership: Lee Coe, chair citizen
Dwain Otte soil and water conservation district
Jerome Deal watershed district
Clair Nelson county commissioner
Char Kahler citizen
Jim Haertel staff support

Responsibility:

The DRC is responsible for appeals relating to the Wetland Conservation Act rule decisions of local governments, watershed district rule appeals, and, under MS103A.301, determinations of water law and policy. The authority of the DRC is established in statute and assigned to the DRC by the Board. Under current guidelines the DRC receives the appeals; hears the issues; and makes recommendations to the Board.

Meetings:

The Committee will meet as needed to process appeals that have been filed with the Board.

EDUCATION AND PUBLIC RELATIONS COMMITTEE

Membership: Paul Krabbenhoft, chair soil and water conservation district
Ginny Imholte watershed district
Clair Nelson county commissioner
Jack Frost watershed district
Victor Ormsby soil and water conservation district
Wayne Edgerton Department of Natural Resources
Jim Anderson Minnesota Extension Service
Ron Struss staff support

Responsibility:

The education committee is responsible for the development of an overall education strategy for the Board including; biennial outcomes; and updating the education strategy biennially.

Meetings:

Committee will meet three times a year or at the call of the chair.

WATER PLAN and COMPREHENSIVE WETLAND PLAN REVIEW COMMITTEES:
NORTH/SOUTH/METRO

Membership: The committee consists of Board Members from the BWSR administrative regions - metro, north, and south. Chairs: north – Ginny Imholte; south –vacant; metro – Karen Harder

<u>North (4)</u>	<u>South (3)</u>	<u>Metro (3)</u>
Ginny Imholte - WD, Chair	vacant - CC, Chair	Karen Harder - CIT, Chair
Lee Coe - CIT	Char Kahler - CIT	Dwain Otte - SWCD
Jerome Deal –WD	Victor Ormsby - SWCD	Jack Frost - WD
Paul Krabbenhoft - SWCD	Perry Aasness - MDA	Lisa Thorvig - PCA
Darrell Bruggman – CC	Dan Wilson - MDH	Jim Anderson - MES
Clair Nelson - CC	Jeff Nielsen, staff support	Steve Woods, staff support
Wayne Edgerton – DNR		
Ron Shelito, staff support		

Responsibility:

The committee has the responsibility to review county water plans, water management organization plans, watershed district overall plans, comprehensive wetland plans, and amendments to same and comprehensive wetland plans and to advise the Board on the adequacy of the plans.

Meetings:

The committee will meet as necessary to review the local plans and amendments. A majority of the committee members must be present. The BWSR northern, southern, and metro regional supervisors will coordinate meeting schedules with members.

WETLANDS COMMITTEE

<i>Membership:</i>	Darrell Bruggman, chair	county commissioner
	Dwain Otte	soil and water conservation district
	Jerome Deal	watershed district
	Char Kahler	citizen
	Lee Coe	citizen
	Karen Harder	citizen
	Perry Aasness	Department of Agriculture
	Wayne Edgerton	Department of Natural Resources
	John Jaschke	staff support

Responsibility:

The Wetlands Committee is responsible for reviewing Wetland Conservation Act (WCA) rules, policies and guidelines and making recommendations to the Board.

Meetings:

The committee will meet at least three times during the year or at the call of the chair.

STATUTORY COMMITTEES

Committee: Committee on Wells and Borings

Membership: Eric Mohring, staff support

Responsibility:

Interest and availability with regard to Advisory Council on Wells and Borings and Pesticide Advisory Committee. Policy issues will be brought before the Board for discussion as a new business agenda item.

Meetings:

The committee will meet when necessary.

GENERAL COMMITTEE MEETING SCHEDULE

*The Board has adopted a resolution that committees would schedule meetings in conjunction with monthly Board meetings as much as possible. A majority of each committee's membership should be available for a scheduled meeting. The committee chair and staff are expected to develop an agenda and staff are responsible for keeping minutes of the committee proceedings. The committee meetings are considered to be **public meetings** under the open meeting law and therefore must be noticed in the same manner as regular board meetings. All committee agendas should be e-mailed to MaryJo Anderson for appropriate notice posting.*

Advisory members have offered to serve and may serve on BWSR committees as non-voting members and provide assistance as needed.

Advisory members:

- ☐ Association of Minnesota Counties (AMC) – Dave Weirens
- ☐ Minnesota Association of Conservation District Employees (MACDE) – Brian Watson/Rick Reimer
- ☐ Minnesota Association of Soil & Water Conservation Districts (MASWCD) – LeAnn Buck
- ☐ Minnesota Association of Townships (MAT) – Sandy Hooker
- ☐ Minnesota Association of Watershed Districts (MAWD) – Ray Bohn
- ☐ USDA Farm Services Agency (FSA) – John Monson
- ☐ USDA Natural Resources Conservation Service (NRCS) – Tim Koehler

Watershed News

North Cannon River Watershed Management Plan — Public Input Sought

The North Cannon River Watershed Management Organization (NCRWMO) located in southern Dakota County recently updated its watershed management plan and is currently seeking comments on the document. The Dakota County SWCD, under an agreement with the NCRWMO, developed the plan and facilitated a citizen and technical advisory committee throughout the planning process. The plan consists of a land and water resource inventory which indicates that the most pressing water quality problems in the area include high bacteria levels in Chub Creek and high sediment levels in Trout Brook. Goals and strategies related to natural area and wetland protection, groundwater and surface quality and quantity, development, education, and evaluation are included in the draft plan.

Black Dog Watershed Management Organization Web Site Now Available

If you live in Burnsville, northwest Lakeville, or southwest Apple Valley, you're probably in the Black Dog Watershed Management Organization. This organization is charged with protecting and improving the water quality in your area. They perform studies, monitor water quality and quantity, and provide water resource education. For more information visit their new web site at www.dakotaswcd.org/watersheds/blackdogwmo.

Lake Monitors Wanted

The Lower Mississippi River Watershed Management Organization in Inver Grove Heights, West St. Paul, South St. Paul, Lilydale, Sunfish Lake, and Mendota Heights is looking for volunteers to collect water samples and transparency measurements on a number of lakes in their area. For more information or to volunteer, contact Laura Jester, Dakota County SWCD, 651-480-7784.

Cannon River Watershed Partnership

The Cannon River Watershed Partnership is a non-profit organization that works to protect and improve the surface and groundwater resources and natural systems of the Cannon River watershed. The Partnership provides outreach and educational opportunities for kids and adults including the Cannon River Festival in Northfield each summer and coordinating a network of volunteer stream monitors. They also perform water quality monitoring studies throughout the watershed, and they are involved in water resource advocacy on the local and state level. If you'd like more information on the Partnership or you're interested in becoming a volunteer monitor, visit their website at www.crowp.net or call 507-645-7094.

Vermillion River Watershed Joint Powers Board and Planning Commission Established

Last fall, the Vermillion River Watershed Joint Powers Board was officially formed through an agree-

ment between Dakota County and Scott County. Commissioners Joe Harris and Paul Krause from Dakota County and Bob Vogel from Scott County make up the Joint Powers Board, which usually meets every other month in Apple Valley. In December, the Board appointed a nine-member advisory Watershed Planning Commission from citizen applicants throughout the watershed. Eight members were appointed from Dakota County including Kevin Bigalke (Apple Valley), Terry Holmes (Empire Township), David Luick (Lakeville), Ron Mamer (Marshall Township), Jerry Ristow (Farmington), Faith Sienbenaler (Vermillion Township), and Mike Simacek (Hastings). Henry Zweber from the City of New Market was appointed from Scott County. The Watershed Planning Commission meets every month and is currently charged with re-drafting the watershed management plan. The plan is slated to be completed by the end of the year and will be hoped it will get through the lengthy review process by late summer of 2004.

New Native Grass and Pasture Seeder for Rent

The Dakota County Soil and Water Conservation District has purchased a brand new Truax Native Grass drill. The drill was partially funding through donations received by the Dakota Ringnecks Chapter of Pheasants Forever and the National Wild Turkey Federation. Dakota County residents can rent the drill on a per-acre basis to seed native prairie, alfalfa, clover, pasture grasses, or oats.

The new Truax drill is 10 feet wide and has 8-inch row spacing. The no-till feature allows seed to be planted directly into sod, so tillage is not necessary. A tractor with at least sixty horsepower and two hydraulic ports is required to operate the drill.

Rent is \$50 for the first acre, and \$10 for each additional acre planted. This charge includes delivery of the drill to and from your site and technical assistance to properly calibrate and attach the drill to your tractor.

The Dakota County SWCD would like to remind you that we also have two 15-foot drills available for rent to plant no-till soybeans or pasture plantings. Rent is \$9.75 per acre and also includes delivery to and from your farm and drill calibration.

If you have any questions regarding drill rental, or if you are interested in planting native prairie or other wildlife habitat on your property, please contact Brad Becker at 651-480-7782.



New Guide to Using Natural Resource Data in Local Decision-Making

The Department of Natural Resources and Dakota County Soil and Water Conservation District are working together to develop a "Guide to Using Natural Resource Data in Local Decision-Making." The purpose of the Guide is to provide citizens and elected officials basic information on why and how to use natural resource data in local land use decisions.

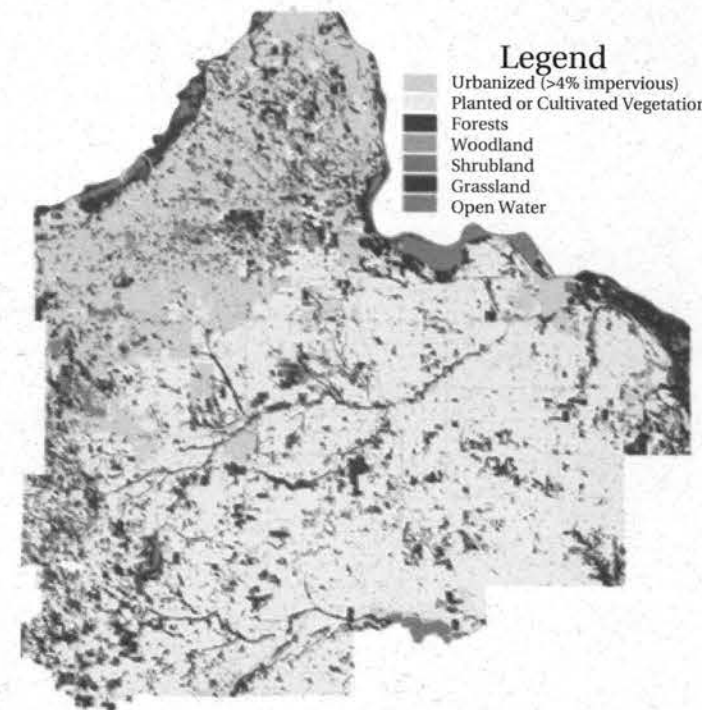
The guide would answer questions like:

- How can natural resource data be used in local decision-making?
- What types of natural resource data exist?
- What is a Geographic Information System and how can it help local planning efforts?
- What is the Minnesota Land Cover Classification System and is it done for my community?
- How do we use land cover-mapping and integrate it with local policy and planning tools (like ordinances, comprehensive plan amendments, or conservation development plans)?

Ultimately the goal is to promote well-informed decisions that can have significant environmental and economic benefits. One of the main components of the NRG is local examples from Minnesota. The recently approved Dakota County Farmland and Natural Area Project referendum will be profiled.

The NRG will be distributed on CD and will include a wide variety of information and links. A "Quick Guide"

printed brochure will also be prepared. Expect the NRG to be available by June, 2003. If you have any questions about this project, call Jay Riggs at 651-480-7779 or email jay.riggs@co.dakota.mn.us.



Dakota Soil & Water Conservation District
Phone: 651-480-7777 \ FAX: 651-480-7775
Web site: <http://www.dakotaswcd.org>
4100 220th Street West, Suite 102
Farmington, MN 55024-8087

❖ An Inside Glance...
❖ Thank You Kevin Chamberlain
❖ New Supervisors Elected
❖ SWCD Receives Award
❖ Tree Sale Coming to a Close

Conservation District
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Dakota County Soil & Water Conservation District

News & Notes

This newsletter also available at <http://www.dakotaswcd.org> Volume 22, Number 1 Spring, 2003

Thank You Kevin Chamberlain!

In December of 2002 we said farewell to Kevin Chamberlain, who served as a Board Supervisor from District 3 for the last twelve years. Kevin, who lives in rural Nininger Township, has provided tremendous leadership and direction for SWCD policies and programs.

Kevin's father Harold previously served on the SWCD Board from 1944 to 1975. He was part of the SWCD's first governing body. Altogether the Chamberlain's have provided forty-three years of commitment to soil and water conservation efforts in Dakota County. The Board and staff would like to say thank you to Kevin for his twelve years of dedicated service. We hope that he continues to stop by the office to say hello every now and then and to "rub-off" some of that calming character we have become familiar with. We wish Kevin the very best in the future!

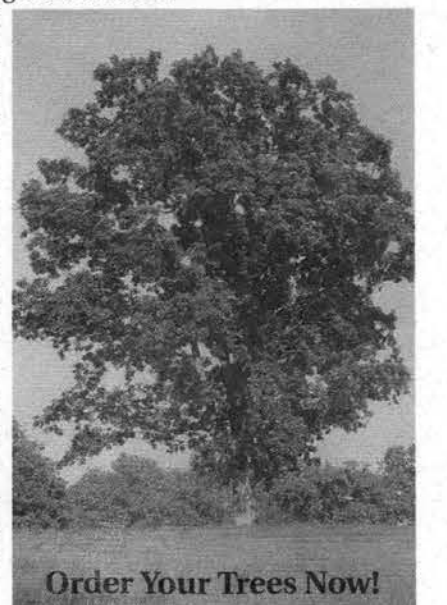
Due to budget reductions and in an effort to more quickly and cost-efficiently communicate information about Dakota County Soil and Water programs, we would like to invite you to subscribe to *News & Notes* on the internet. Please visit our site at www.dakotaswcd.org and send an e-mail to swcd@co.dakota.mn.us so we can set you up with this new service.

SWCD Tree Sale Coming to a Close

If we can measure ecological progress by the numbers, Dakota County SWCD's Tree Program certainly qualifies as a success... at least in the establishment of trees and shrubs on our farms and in our communities. Over the past six years, Dakota County residents have planted nearly a quarter of million trees and shrubs. We have a variety of trees and shrubs to offer. Combinations of varieties provide colorful surroundings, shade for our living areas, protection from wind, and cover for wildlife. All of our shrubs and many of the hardwood trees produce colorful blooms in the spring, some bearing fruit, as well as great fall color. Of course, the conifers provide green color year around.

To ensure availability, you need to order your trees today! Simply visit our website at www.dakotaswcd.org or call 651-480-7776 for an order form. **Do not delay in placing your order to obtain the best selection!** Those who placed an order and prepaid can pick up their trees between 12:00 p.m. and 7:00 p.m. on Thursday, April 24 and between 10:00 a.m. and 3:00 p.m. on Friday, April 25. Trees will be distributed from the Dakota County Fairgrounds located at 4008 220th Street West in Farmington. We will have a limited number of trees available for sale during distribution.

The University of Minnesota Master Gardeners will be on hand to answer your tree planting and tree care questions. Student volunteers from Hastings High School Environmental Studies classes and Randolph FFA members will also be assisting with the bagging and distribution of the trees. We will have several brochures and pamphlets available for you to take home with your trees.



Order Your Trees Now!

News & Notes

published semianually by

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Dakota County Extension
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4100 220th Street West, Suite 102
Farmington, MN 55024-8087
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http://www.dakotaswcd.org

District Board

Joseph Meyers, *Chair*
Rick Hansen, *Vice-Chair*
Suzanne Savanick, *Treasurer*
Dwain Otte, *Secretary*
Monica Broin, *Public Relations and Information Officer*

District Employees

Brian Watson, *District Manager*
Jay Riggs, *Urban Conservationist*
Laura Jester, *Watershed Conservationist*
Todd Matzke, *Resource Conservationist*
Brad Becker, *Resource Conservationist*
David Holmen, *Resource Conservationist*
Lana Rotty, *Administrative Assistant*
Dee Parker, *Office Assistant*

assisted by the **USDA Natural Resources Conservation Service**
John Crellin, *District Conservationist*
Matthew Schaar, *Soil Conservation Technician*

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

With changes of address or subscription inquiries, call 651-480-7777.

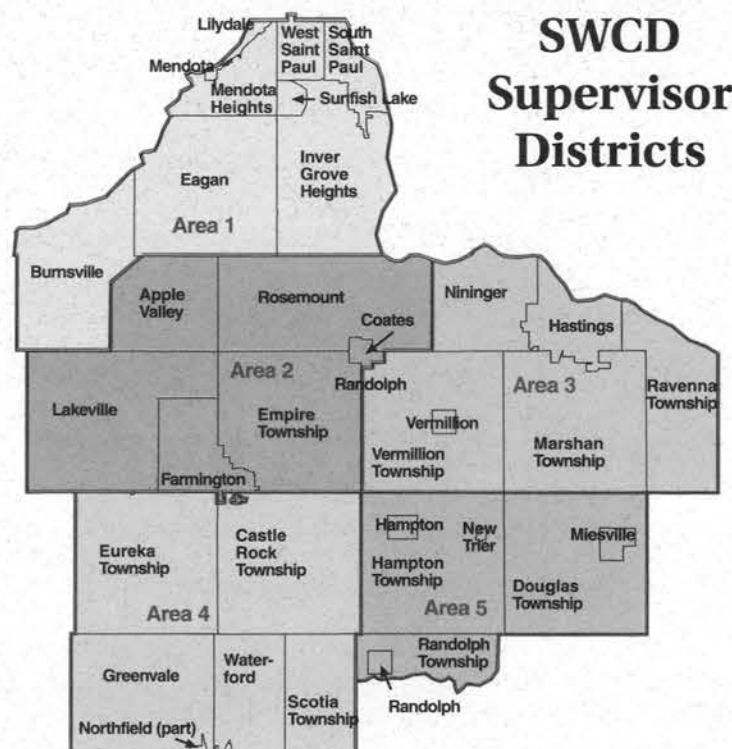
All programs and services of the U.S. Department of Agriculture, Natural Resources Conservation Service, and the Dakota County Soil and Water Conservation District are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Dakota SWCD Board of Supervisors Take Oath

On January 2, the Dakota County Soil & Water Conservation District (SWCD) held its first Annual Board of Supervisor's Meeting for 2003. At this meeting, Rick Hansen (District 1) and Monica Broin (District 3) read the Oath of Office and were "sworn-in" for their 4-year terms. Officers were also elected, committees assigned, and meeting dates established for the year.

The Board of Supervisors for the SWCD are:

- Rick Hansen, Inver Grove Heights, entering his seventh year, representing District 1 (Cities of Burnsville, Eagan, Inver Grove Heights, Mendota Heights, South St Paul, Sunfish Lake, West St Paul).
- Suzanne Savanick, Apple Valley, entering her fifth year representing District 2 (Cities of Apple Valley, Farmington, Lakeville, Rosemount, and Township of Empire).
- Monica Broin is entering her first year representing District 3 (City of Hastings, and Townships of Marshan, Nininger, Ravenna, and Vermillion).
- Dwain Otte of Northfield is entering his twenty-sixth year, representing District 4 (Townships of Castle Rock, Eureka, Greenville, and Sciota).
- Joe Meyers of rural Douglas Township is entering his eleventh year representing District 5 (Townships of Douglas, Hampton, and Randolph).



Joe Meyers was elected as Chair and Rick Hansen will serve as Vice Chair. Suzanne Savanick was elected as Treasurer and Dwain Otte will serve as Secretary. Monica Broin was elected Public Relations and Information Officer.

Monthly Board meetings have been scheduled for 9:00 a.m. the first Thursday of the month. All meeting dates and times are subject to change. To learn more about the Dakota SWCD Board meetings visit our web site at www.dakotaswcd.org.

Eagan Core Greenway

Starting this spring, the Dakota SWCD will be working with the City of Eagan to analyze existing natural areas and identify opportunities for protecting a greenway corridor through the City. The City is now over ninety percent developed, with few areas remaining as passive open space. The focus is the potential greenway chain from Lebanon Hills Regional Park, through the City of Eagan, to the Minnesota River Valley. Once the primary corridor areas are identified, more detailed natural resource data will be collected to identify critical links and implications for preservation and management. The project will identify land in and



around the greenbelt core that may enhance the corridor. This will provide the City a critical tool to prioritize parcels that need protection.

Eagan's Core Greenway has the potential to provide wildlife habitat, open space, and critical stormwater runoff storage. The City would like to incorporate preservation and stewardship into its decision making process and long term vision for protection, but it is important to first understand property ownership and the resource base.

If you have any questions about this project, call Jay Riggs at 651-480-7779 or e-mail jay.riggs@co.dakota.mn.us.

Dakota SWCD Receives Award From EPA

The Dakota SWCD was recently selected by the U.S. Environmental Protection Agency (EPA) as a *Clean Water Partner for the 21st Century*. This recognition was provided for the organization's efforts to protect and improve the nations watersheds and further national clean water goals. Specifically, the SWCD was recognized for their past efforts within the Vermillion River Watershed and their leadership in developing the Vermillion River Watershed map *Communities connected by water*, and publishing the Vermillion River Watershed Handbook *A guide to help landowners make their property Vermillion River friendly*. Both of these resources are available to Dakota County residents by calling the SWCD office.

Dakota SWCD staff were scheduled to receive the award on February 18, 2003 at EPA Headquarters in Washington D.C. Unfortunately, one of the largest snowstorms on record fell on the Washington area and the event was cancelled.

The SWCD Board and staff would like to take this opportunity to say thanks to all of our partners who provided support and funding for these two projects. These partners include the Dakota County Board of Commissioners and the Office of Planning, the Dakota County Environmental Education Program, Friends of the Mississippi River, the Minnesota Department of Natural Resources, Metropolitan Council, U.S. Forest Service, and Trout Unlimited. We look forward to continuing our efforts in the future!

Welcome Matthew Schaar

Matthew Schaar is newest employee at the Natural Resources Conservation Service (NRCS) in Farmington. He joins us as a Soil Conservation Technician who will be working with the SWCD to develop conservation plans, assist in the implementation of conservation practices, and provide technical assistance to the owners and operators of land in Dakota County. Matthew had been the summer Conservation Technician for the SWCD in 2002, inspecting erosion control practices at urban construction sites as well as taking part in water quality monitoring activities. Matthew received his B.S. in Environmental Engineering Technology from the University of Wisconsin River Falls in December of 2001. In his spare time he enjoys fishing and target shooting. He looks forward to working with you.



New Trout Stream On Vermillion River

(Reprinted from DNR Press Release dated January 15, 2003)

Hailed at the beginning of the twentieth century as one of the upper midwest's top brook trout streams, by 1959 Dakota County's Vermillion River had declined to the point where its polluted waters were considered unfit for any game fish.

Now the Vermillion is making a comeback as a premier coldwater fishery, a phenomenon reflected by recent state action aimed at better recognizing and protecting one of the few metro region streams healthy enough to support trout.

In December, the Minnesota Department of Natural Resources assigned official trout stream designation to a 20.5-mile reach of the Vermillion stretching from Highway 3 in Farmington to just east of Highway 52 in Vermillion Township. The action nearly doubles the portion of the Vermillion River designated as a trout stream, which previously ran from Lakeville to Farmington.

"Not many communities in a major metropolitan area can boast of a trout stream running through them," said Dirk Peterson, DNR Central Region fisheries manager. "And it's not often we see this type of recovery, from a seriously impaired water to a trophy fishery. This is testimony to the impacts of the Clean Water Act, improvements in land use, and good local planning."

Designation acknowledges that stream conditions are right to support trout, a sensitive species that needs clean, cold waters to survive. It prohibits any angling except during trout season, which generally runs from mid-April through late September. And it sets stricter standards for activities that may affect the stream's water quality, such as discharge of municipal stormwater.

Stormwater runoff is of particular concern in the rapidly urbanizing Vermillion River watershed. As an area develops, more and more of the land that once allowed rain water to soak into the ground is covered with impervious surfaces such as pavement and roofs. Water running over these impervious surfaces is warmed; it picks up pollutants and it reaches the stream much more quickly, causing erosion and sedimentation in the stream, as well as thermal and chemical pollution. All these factors can add up to the demise of a trout stream.

With the Metropolitan Council projecting an additional 145,000 residents for Dakota County by 2030, the Vermillion could be at risk if that growth isn't well thought out, said Jason Moeckel, a DNR trout stream specialist. Moeckel points to the experience of Lakeville to illustrate how a community can maintain a healthy coldwater fishery while accommodating development.

Six years ago, Lakeville officials found themselves in a situation that seemed to pit economic growth in an industrial park against protection of the South Branch of

the Vermillion, a designated trout stream. Working closely with the DNR, the city was able to implement alternative stormwater management practices that minimized negative impacts to the stream, thereby preserving a valuable community amenity while enhancing the local tax base.

"It's not an either-or situation," Moeckel said. "What it means is cities and developers have to use different approaches to managing stormwater runoff. They've got to keep the water getting to the river cleaner and colder."

The DNR began exploring the feasibility of expanding the designated portion of the Vermillion several years ago, after angler reports suggested that trout were being found outside the twenty-five mile stretch that had been designated in 1983. Subsequent fish surveys showed that brown trout, some in the "trophy" range, could indeed be found in further reaches of the stream. After numerous meetings with local officials, landowners and the public revealed widespread support for efforts to protect the stream, DNR went ahead with the designation process.

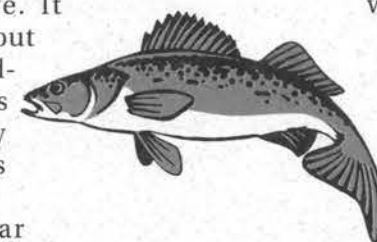
Currently only 1.2 miles of the designated portion of the Vermillion River is accessible to the public, all of it in Farmington city parks. The DNR is interested in expanding public access by working with willing landowners interested in selling or donating angling easements.

The expanded designation comes at a time when a growing amount of attention is being focused on the Vermillion River. For the past few years the Dakota County Soil and Water Conservation District has been involved in a study to determine the source of fecal coliform bacteria in the stream. The SWCD, in partnership with private landowners and other organizations, also has undertaken several streambank restoration projects. The Dakota County Farmland and

Natural Areas program, funded by a recently passed \$20 million referendum, identifies the Vermillion River corridor as a priority for protection efforts. And last summer the Legislative Commission on Minnesota Resources recommended spending \$8 million on the DNR-led Metro Wildlife Corridors project, which includes potential funding for work in the Vermillion watershed.

The DNR's Peterson sees all those things as encouraging signs. Taken together with the expanded designation, they point out positive trends and future challenges.

"In as much as trout are indicators of cold, clean waters, it's a sign water quality has improved," Peterson said. "The question now is, with all the urban growth going on, will we be able to maintain it as a trout stream? Or will we be talking, in 2059, about the Vermillion River not supporting any game fish again?"





FYI

Education and Public Relations Committee

Minnesota Board of Water and Soil Resources

Paul Krabbenhoft - Chairperson Jim Anderson Wayne Edgerton
Jack Frost Ginny Imholte Clair Nelson Vic Ormsby Ron Struss - Staff

Notice of April 23, 2003 Meeting

8:00 am – 8:45 am

Second Floor Conference Room, BWSR. St. Paul, MN
(Room 297, to the left at BWSR's main door, left again at corner)



**An early morning
Pre-Board meeting!**

Agenda

8:00 am

1. Welcome to Vic Ormsby, new committee member
2. Up-date on Minnesota Drainage Education Workgroup

X

The Minnesota Drainage Education Workgroup is developing a plan for statewide drainage education. The Workgroup is seeking BWSR Education Committee input both to strengthen the plan and to provide multi-agency support of the concept.

At their April 8th meeting the Minnesota Drainage Education Workgroup decided:

- Not to compete with Drainage 101 offered by MAWD
- Not to compete with technical drainage workshops offered by UM Extension
- Target the broad range of those involved in land drainage
- Provide education on such topics as (this list is in formation stage):
 - Planning drainage on a watershed basis
 - Managing nutrient losses from drainage systems
 - Wildlife management and drainage
- Offer an annual or semi-annual two-day conference repeated in three MN locations
- Keep costs to within \$125 to \$175 for a two day conference
- Have UM Extension be primary sponsor, with several other key co-sponsors

8:45 am

Adjourn Education Committee for Board Meeting

Bemidji	Brainerd	Duluth	Fergus Falls	Marshall	New Ulm	Rochester	Saint Paul
3217 Bemidji Avenue N. Bemidji, MN 56601 phone (218) 755-4235 fax (218) 755-4201	217 S. 7th Street Suite 202 Brainerd, MN 56401 phone (218) 828-2383 fax (218) 828-6036	394 S. Lake Avenue Room 403 Duluth, MN 55802 phone (218) 723-4752 fax (218) 723-4794	413 W. Stanton Avenue Fergus Falls, MN 56537 phone (218) 736-5445 fax (218) 736-7215	1400 E. Lyon Street Box 267 Marshall, MN 56258 phone (507) 537-6060 fax (507) 537-6368	261 Highway 15 S. New Ulm, MN 56073 phone (507) 359-6074 fax (507) 359-6018	40 16th Street S.E. Suite A Rochester, MN 55904 phone (507) 285-7458 fax (507) 280-2875	One West Water Street Suite 250 Saint Paul, MN 55107 phone (651) 282-9969 fax (651) 284-0000

EXECUTIVE SUMMARY

Description of Planning Process

This plan is designed to meet the statutory requirements for the overall management plans for Okabena-Ocheda and Kanaranzi-Little Rock watershed districts, the comprehensive plan for Nobles County SWCD, and the comprehensive water management plan for Nobles County. The Kanaranzi-Little Rock Watershed District includes parts of southeastern Rock County and the Heron Lake Watershed District includes parts of Cottonwood, Jackson, and Murray counties. For this reason special attempts were made to ensure that this plan is consistent and complementary to neighboring county's plans.

Physical Environment and Land Use

Nobles County is located in extreme southwestern Minnesota, approximately 40 miles east of Sioux Falls, South Dakota and along the Minnesota - Iowa State border. The County is 720 square miles containing 20 rural townships and 14 villages or cities. The population of Nobles County was 20,832 in 2000. The City of Worthington accounts for more than half the county's population with a 2000 census of 11,283.

Approximately 99 percent of the land in the county is privately owned. Agriculture and its related services is the dominant land use and main economic activity within Nobles County. Corn, soybeans, hogs and cattle are the major commodities produced. According to the Minnesota Department of Agriculture, the average farm size is about 347 acres and there are about 1,199 farms. The City of Worthington is the only significantly developed area of the County. The County's industrial and commercial activities are also concentrated in Worthington.

Nobles County has dramatically changed since the period of its initial settlement. The tall grass prairie and prairie potholes have been replaced by intensive row crop production. In this process, many wetlands were drained or filled.

At present, development pressure on rural land is quite low. Countywide projections indicate a leveling-off or decline in rural populations and moderate population increases in Worthington. Agriculture will continue to be the County's primary economic activity. Eroding lands are of great concern in areas of intensive agriculture. The county will need to effectively implement long-term erosion control and water quality improvement.

There are no state designated recreation areas such as parks, forests, canoe routes, wild and scenic areas or trout streams located in Nobles County.

Watersheds

Nobles County is divided by the Bemis Moraine into two major watersheds: the Missouri River Basin and the Des Moines - Cedar Rivers Basin. The northern section of Worthington is split by these two drainage basins.

Within the Missouri River Basin, a portion of the Rock Watershed flows toward the southwest into Rock County. The Kanaranzi-Little Rock Watershed District includes the central and southwest areas of the County. The Okabena-Ocheda Watershed District contains most of the City of Worthington, Okabena Lake, Ocheda Lake, and Lake Bella. The extreme southeastern corner of the County is within the Little Sioux watershed that also contains Indian Lake and the City of Round Lake.

Within the Des Moines River Basin, two separate watersheds are found in Nobles County. Almost the entire northeastern portion of the County is within the Heron Lake Watershed District. The northern section of Worthington is within this watershed. A small area of extreme northeast Nobles County is within the Des Moines Headwaters watershed.

Surface Water

Clean Water Partnership diagnostic and feasibility studies have increased the surface water information available for many of Nobles County's lakes and streams. The Okabena-Ocheda-Bella Clean Water Partnership study sampled surface water during 1989 and 1990 in the Okabena, Ocheda and Bella lakes watersheds to assess water quality and identify non-point pollution sources. The Middle Des Moines Watershed Restoration Clean Water Partnership study sampled surface water and measured flow in the Heron Lake watershed during 1992.

There are no major rivers that run through the County. This restricts irrigation and larger scale, surface water dependent industrial or commercial developments. There are no lakes or streams in Nobles County with state protected levels or flows, but ordinary high water marks are recognized for five surface water basins in the County. At present time game fisheries are maintained in East Graham, West Graham, Okabena, and Indian Lakes by the use of aerators in the winter. Without the utilization of the aerators it is doubtful that populations of game fish could be maintained. With the scarcity of larger surface water basins, water oriented recreation and shoreline development potential in the County is limited.

Surface water quality in Nobles County is generally in poor condition. Lakes within the County are all hypereutrophic and do not support a swimmable use. Streams that have been monitored generally do not meet Class 2C standard and in instances do not meet Class 7 standards.

Judicial Ditch 6, flowing between Lake Okabena and Lake Ocheda, is listed as impaired for aquatic life on the 2002 MPCA Clean Water Act 303d TMDL list. The primary pollutant for the ditch is turbidity from total suspended solids.

Nobles County is part of the watershed for impaired stretches of the Rock and Upper Des Moines Rivers. The major surface water basins are located in the eastern half of the County. The western areas of the County contain many intermittent stream channels that most often run through croplands.

Nobles County has 72 miles of public drainage ditches, 46 miles of open ditches and 284 miles of county tiles. Both public and private ditches have contributed to the loss of wetlands originally present in Nobles County. Consequently, they are also partly the cause of a decline in available surface water, wildlife habitat area, and groundwater quantities. Ditching and tiling led to the degradation of natural stream courses and lake basins by forcing too much water to flow into them too fast.

High water levels have caused excessive shoreland erosion around Okabena and Ocheda lakes and have hampered existing farm drainage systems. Surface water level fluctuations also impact the wildlife habitat areas of Ocheda Lake.

Feedlots and animal confinement facilities are common throughout Nobles County. The 2001 inventory identified 672 sites. The greatest potential for pollution from feedlots in Nobles County is not from feedlot runoff, but rather the improper application of manure on fields.

Water quality is impacted by many intensive agricultural practices throughout the County. Soil erosion, fertilizers, and manure are the primary sources of contaminants. These sediments and nutrients are readily transported to receiving waters through well-defined drainage patterns. Very few original wetlands remain which decreases the amount of nutrients or sediments that may be trapped in upstream areas.

Forty-one percent of County cropland is subject to excessive water erosion that ranges up to, or exceeds, 20 tons per acre per year. Steeper slopes and slow infiltration rates in western areas of the County contribute to the potential for water erosion.

Wind erosion causes serious soil deterioration in Nobles County. The absence of soil cover, moisture, and windbreaks increase the likelihood of excessive wind erosion that range up to, or exceed 12 tons per acre per year. Severe wind erosion potential occurs on five percent of the County's cropland while remaining cropland has slight to moderate potential for wind erosion.

Other significant sources of surface water contaminants may include urban runoff and unsewered communities and nonconforming septic systems.

Groundwater

Groundwater aquifers found in glacial drift materials are the most common source of water in Nobles County. Groundwater quantities are naturally limited by the capacities of these surficial formations. The flow direction of glacial drift

aquifers in Nobles County is generally southward. However, shallower aquifers tend to flow toward the nearest or down gradient surface water body.

A decrease in groundwater quantity, combined with progressively increasing water demands and use, have made adequate potable water supplies a main concern of local agencies. The City of Worthington may be approaching its groundwater supply limit. The City is part of the Lewis and Clark Rural Water System that will bring water from the Missouri River. This water will supplement Worthington's existing supply.

There are 28 permitted community public water, or municipal wells in Nobles County that provide the public water supplies of nine communities. Farm water supplies are adequate over most of the area. Municipal and industrial water supplies have been, and will remain, a chronic problem.

Nobles County has contaminated groundwater that can be traced back to sources linked with the intensive agricultural land use of the County. The contaminants most prevalent are nitrates and coliform bacteria. Nitrates most commonly leach into groundwater from nitrogen fertilizers applied in excessive amounts to overlying cropland.

Coliform bacteria may come from animal manure and on-site sewage treatment systems common in rural agricultural areas such as Nobles County. Agricultural land use is perhaps the single significant cause of existing groundwater quality problems in Nobles County. Unfortunately, because of the countywide extent of cropland agriculture, the nitrate and coliform bacteria contamination is not isolated to specific areas or areas of greater concentrations.

The moderate quantities of available groundwater in Nobles County increase the importance of preserving and maintaining adequate groundwater quality in this area. Actions must be taken to maintain and improve groundwater quality in the County. The widespread nature of agriculture and apparent widespread frequency of contamination may indicate future threats to existing populations if appropriate measures are not taken.

Accomplishments

The mission of the Nobles County Comprehensive Water Management Plan is: to provide education on all aspects of water and land related issues and on current rules and regulations and their consequences, to seek and dedicate resource funds for implementation of Best Management Practices through sound hydrological management and effective and efficient environmental management, and to constantly evaluate and identify existing and potential problems and opportunities in water and related land resources.

Past planning process have developed many programs that are in an ongoing long-term implementation process. Highlights include:

1. Development of the Kanaranzi-Little Rock PL566 project implementing 50,000 acres of conservation tillage, 6,500 acres of contour farming, 75 miles of terraces, 270 water and sediment control basins, and 1,000 acres of grassland waterways.
2. Formed the Okabena-Ocheda-Bella Clean Water Partnership Joint Powers Board between the City of Worthington and Okabena-Ocheda Watershed implementing filter strips, construction of the W-9 Water Quality Detention Basin on Okabena Creek, flow monitoring on Whisky Ditch and Sunset Bay inlets into Lake Okabena, water monitoring on Lake Okabena and the replication of a 1963 survey to measure sedimentation rates in Lake Okabena and Sunset Bay, purchasing land and restoring wetlands in partnership with Nobles County Pheasants Forever and the Olson Trust.
3. Funded and continued a MPCA Clean Water Partnership grant and loan program to improve water quality, improve wildlife habitat and reduce flooding throughout the Heron Lake Watershed.
4. Implemented watershed district permitting programs and policies to provide for the orderly management of water resources.
5. Established new identical impervious surface rules for Okabena-Ocheda and Heron Lake watershed districts.
6. Developed and continued Well Sealing Program funded by the county and watershed districts. The County pays 33% and the Okabena-Ocheda, Kanaranzi-Little Rock, or Heron Lake districts pay landowners an additional 15%.
7. Developed and implemented a special cost-share program to reduce the amount of sediment, nutrients, and chemicals running off farmland within Nobles and Rock counties. Two years later it was expanded to include Jackson County.
8. Developed special cost-share programs to fund a variety of practices that would demonstrate water quality benefits. Projects, including grassed waterways, critical area plantings, water control structures, vegetative filter strips, terraces, and water and sediment control basins, have been completed.
9. Organized, under the direction of the Water Plan Coordinator, a countywide Environmental Office. The office includes water planning coordination, land use planning and regulation, agricultural inspections, feedlots, solid waste activities and operation of a state certified lab as part of the Department of Health's Safe Drinking Water Program. The

Environmental Office developed a countywide inventory of feedlots, produced a feedlot ordinance, and held workshops, tours, and demonstrations for producers.

10. Implemented surface water testing of Prairie View Golf Course ponds and Lake Okabena in partnership with Minnesota West Community and Technical College, Nobles County Environmental Services, City of Worthington, and Okabena-Ocheda Watershed District.

The Future

Nobles County, Nobles Soil and Water Conservation District and the Kanaranzi-Little Rock and Okabena-Ocheda watershed districts will continue to cooperate with other public and private organizations to improve the water quality in southwest Minnesota. Together they will work to continue to cost-share sealing of abandoned wells. The watershed districts will continue their permitting programs and policies to provide for the orderly management of water. The County will provide for the update of the soil survey, develop a GIS program, facilitate a water testing lab and give assistance to cities completing their wellhead protection plans. Nobles County will continue administration of this Comprehensive Water Management Plan and seek additional funding while Nobles SWCD implements the plan and continues its leadership role in promoting of agricultural BMP's, cost-share and environmental education programs.

Priority Goals

The Advisory Committee, responsible for overseeing this planning process, ranked this water plan's Management Strategies for the upcoming five years in October 2002. The results of the ranking are listed below. A detailed discussion of the Management Strategies can be found in Section VI and the ranking scheme is explained in Section XI.

High Priority Groundwater Quality Protection Management Strategies

- Identify and evaluate unpermitted sites suspected of illegal hazardous waste disposal or storage on a complaint basis.
- Continue the inspection program for commercial salvage yards.
- Continue to provide opportunities for the safe disposal of household hazardous waste and promote hazardous waste disposal opportunities for small businesses.
- Follow the County solid waste management plan and enforce the County solid waste ordinance to ensure compatibility with water management objectives and policies.
- Continue to require municipalities to have curbside pickup of garbage and recyclables.

- Continue the program to educate landowners on the proper application and disposal of agricultural and lawn chemicals, based on established standards, for use on noxious weeds.
- Continue to promote disposal of used chemical containers for agricultural products and provide information on the proper use and disposal for agricultural chemicals.
- Cooperate with the Minnesota Department of Health in the regulation of the construction of new wells according to State codes.
- Continue County abandoned well sealing cost-share program and when possible supplement state grants with local funds.
- Continue support of county water lab and the existing private well water testing program.
- Inspect all individual sewage systems installed by landowners and licensed contractors.
- Investigate all complaints of septic system sites believed to directly discharge into streams, tiles, or ditches.
- Work in an advisory capacity with the cities of Worthington, Adrian and Ellsworth to develop and implement wellhead protection plans.
- Identify areas where ground water is susceptible to pollution and develop plans to protect them.

High Priority Surface Water Quality Protection Management Strategies

- Increase levels of financial and technical assistance to local landowners for agricultural erosion and sediment control practices including waterways, terraces, critical area plantings, conservation tillage, alternative tile intakes, filterstrips, wetland restorations and windbreaks using the state-cost share program, local cost-share programs, state-revolving fund loans and other grants.
- Prohibit the draining or filling of wetlands or waterbodies without compensatory water quality treatment in the same direct subdrainage area.
- Promote the use of BWSR's Reinvest In Minnesota Reserve and the USDA Conservation Reserve Program for land areas contributing significant sediment or nutrient loads to surface waterbodies.
- Provide assistance to watershed districts or lake associations for identifying and procuring cost-share assistance for water quality improvement practices.

- Promote conservation tillage and no-till farming techniques for reduction of cropland erosion and sedimentation.
- Prohibit the encroachment of row crops in County and township road right-of-ways.

High Priority Flooding Prevention and Reduction Management Strategies

- Administer the Wetland Conservation Act (MN Rules Chapter 8420).
- Encourage the use of long-term easement programs or CRP contracts for the restoration of wetlands.

High Priority Public Ditch Maintenance Management Strategy

- Maintain all public ditches in accordance with State law.

High Priority GIS Management Strategies

- Construct a GIS base map.
- Support and seek local, state and federal funding to complete an updated soil survey that can be used by the public in an Internet format and is compatible with GIS software.

High Priority Fish, Wildlife and Recreation Management Strategy

- Provide financial incentives or assistance for wetland and upland habitat restorations.