



Minnesota Board of Water and Soil Resources.
Minutes.

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DATE: September 16, 2003

TO: Board of Water and Soil Resources Members, Advisors, and Staff

FROM: Ronald D. Harnack, Executive Director

SUBJECT: September 24th BWSR Meeting Cancelled

The September 24, 2003, Board of Water and Soil Resources (BWSR) meeting has been cancelled due to minimal agenda items. This decision is consistent with discussions at previous board meetings where it was decided to plan and reduce the number of meetings by two a year as part of budget considerations.

The upcoming Board meetings will be held on October 22nd and December 17th, in St. Paul. The agendas for these meetings will likely be a little longer so we will plan to meet into the afternoon and provide lunch.

<i>Bemidji</i>	<i>Brainerd</i>	<i>Duluth</i>	<i>Fergus Falls</i>	<i>Marshall</i>	<i>New Ulm</i>	<i>Rochester</i>	<i>Saint Paul</i>
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

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET
LOWER LEVEL CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
WEDNESDAY, OCTOBER 22, 2003**

AGENDA

9:00 a.m. Call Meeting to Order

Pledge of Allegiance

Adopt Agenda

Minutes of August 28, 2003

Open Mike (10-minute agenda time, two-minute limit/person)

Reports

- Chair – Jerome Deal
- Executive Director – Ron Harnack
- Dispute Resolution Committee – Jerome Deal
- Wetlands Committee – Clair Nelson
- Cost-Share/Soil Conservation Committee – Dwain Otte
- Education and Public Relations Committee – Kay Cook
- Administrative Advisory Committee – Jerome Deal

Agency Reports

- Minnesota Department of Agriculture – Perry Aasness
- Minnesota Department of Health – Dan Wilson
- Minnesota Department of Natural Resources – Gene Merriam
- Minnesota Extension Service – Jim Anderson
- Minnesota Pollution Control Agency – Lisa Thorvig

Committee Recommendations

Metro Water Plan Review Committee

1. North Cannon River Watershed Management Organization
Watershed Management Plan – *Decision Item*
2. Washington County Groundwater Protection Plan – *Decision Item*

Southern Water Plan Review Committee

1. Winona County Comprehensive Local Water Plan – Mary Kells -
Decision Item

Dispute Resolution Committee

1. WCA Appeal of an Exemption Decision, City of Independence, Hennepin County, File 03-10 – Jim Haertel – *Decision Item*

Wetland Committee

1. City of Cloquet Wetland Management Plan – *Decision Item*
2. Lake of the Woods County Wetland Management Plan – *Decision Item*
3. Replacement Credit for Exceptional Natural Resource Value (ENRV) – Dale Krystosek – *Decision Item*

New Business

1. LeSueur County Comprehensive Local Water Plan Request for Extension – Doug Thomas – *Decision Item*
2. RIM Reserve Easement Alteration of Neil & Betty Johnson Easement #47-07-87-01 in Meeker County – Tim Fredbo – *Decision Item*
3. RIM Reserve Easement Alteration of Barry Nelson Easement #76-01-98-03 in Swift County – Tim Fredbo – *Decision Item*
4. Heron Lake Watershed District Enlargement – Jim Haertel – *Decision Item*
5. Red River Basin Commission Three-Year Work Plan – Lance Yohe – *Decision Item*
6. Metro Surface Water Management Rule (MN Rules 8410) Revision – Jim Haertel – *Information Item*
7. Watershed District Appeal Rules - Jim Haertel - *Information Item*
8. Comprehensive Local Water Management - Doug Thomas – *Information Item*
9. Legislative Initiatives – Ron Harnack – *Information Item*

Advisory Comments

- Association of Minnesota Counties (AMC) – Dave Weirens
- Minnesota Association of Conservation District Employees (MACDE) – Rick Reimer
- Minnesota Association of Soil and Water Conservation Districts (MASWCD) – LeAnn Buck

- Minnesota Association of Townships (MAT) – Sandy Hooker
- Minnesota Association of Watershed Districts (MAWD) – Ray Bohn
- Natural Resources Conservation Service (NRCS) – Tim Koehler

Upcoming Meetings

- MASWCD Annual Meeting, November 30 – December 2, 2003, Radisson South, Bloomington
- MAWD Annual Meeting, December 4 – 6, 2003, Arrowwood, Alexandria
- AMC Annual Meeting, December 8 – 10, Hyatt Regency Hotel, Minneapolis
- Next Board Meeting, December 17, 2003, St. Paul

Adjourn



DATE: October 14, 2003

TO: Board of Water and Soil Resources Members, Advisors, Staff

FROM: Ronald D. Harnack, Executive Director

SUBJECT: October 22nd Board Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, October 22, 2003, beginning at 9:00 a.m. The meeting will be held in the BWSR conference room, lower level, at One West Water Street, St. Paul. Parking is available across the street from the building. Please display the enclosed "temporary parking permit" on your vehicle's dashboard.

The following information pertains to agenda items:

Committee Recommendations

Metro Water Plan Review Committee

1. North Cannon River Watershed Management Organization Watershed Management Plan (Plan) - On September 30, 2003, the BWSR Metro Water Plan Review Committee met to review the Watershed Management Plan for the North Cannon River Watershed Management Organization and recommend approval of the Plan. The BWSR Metro Region Staff also recommends approval of the Plan. The Plan does comply with Minnesota Statutes 103B.231 and the fundamental planning expectations articulated by BWSR. See attached. *Decision Item*
2. Washington County Groundwater Protection Plan - On September 30, 2003, the BWSR Metro Water Plan Review Committee met to review the Washington County Groundwater Protection Plan and recommend approval of the Plan. The BWSR Metro Region Staff also recommends approval of the Washington County Groundwater Protection Plan. The Plan does comply with Minnesota Statutes 103B.255 and the fundamental planning expectations articulated by BWSR. The Plan accurately reflects a management and implementation framework consistent with the recommendations provided by the Washington County Groundwater Advisory Committee. See attached. *Decision Item*

Bemidji 17 Bemidji Avenue N. Bemidji, MN 56601 phone (218) 755-4235 fax (218) 755-4201	Brainerd 217 S. 7th Street Suite 202 Brainerd, MN 56401 phone (218) 828-2385 fax (218) 828-6036	Duluth 394 S. Lake Avenue Room 403 Duluth, MN 55802 phone (218) 723-4752 fax (218) 723-4794	Fergus Falls 413 W. Stanton Avenue Fergus Falls, MN 56537 phone (218) 736-5445 fax (218) 736-7215	Marshall 1400 E. Lyon Street Box 267 Marshall, MN 56258 phone (507) 537-6060 fax (507) 537-6368	New Ulm 261 Highway 15 S. New Ulm, MN 56073 phone (507) 359-6074 fax (507) 359-6018	Rochester 40 16th Street S.E. Suite A Rochester, MN 55904 phone (507) 285-7458 fax (507) 280-2875	Saint Paul One West Water Street Suite 250 Saint Paul, MN 55107 phone (651) 282-9969 fax (651) 284-0000
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Southern Water Plan Review Committee

1. Winona County Comprehensive Water Plan – The Southern Water Plan Review Committee met with Winona County representatives and BWSR staff on September 24, 2003, to review and discuss their Water Plan Update. The 2003 Water Plan Update meets all standards and guidelines set forth by BWSR. The Update covers the period of 2003 - 2010 and is a companion to the Winona County Comprehensive Land Use Plan. The BWSR Southern Water Plan Review Committee recommends approval of the Winona County Water Plan Update. See attached. *Decision Item*

Dispute Resolution Committee

1. WCA Appeal of an Exemption Decision, City of Independence, Hennepin County, File 03-10 – An appeal of a denial of an agricultural exemption by the Pioneer-Sarah Creek Watershed Management Commission was filed with BWSR on May 23, 2003. The appeal centers on the issue of whether a horse barn built on a wetland qualifies for an agricultural exemption under WCA. The appeal was accepted on June 11, 2003. A pre-hearing conference was held on July 29, 2003 resulting in a briefing and hearing schedule. After written briefs were submitted, the dispute resolution committee heard oral arguments on the appeal on September 24, 2003. The Pioneer-Sarah Creek WMC found that the principal use of the horse barn was as a training and boarding facility, and not principally for the cultivation or production of plants or farm animals as the WCA agricultural exemption requires. The dispute resolution committee deliberated over the issue of a horse barn meeting the agricultural exemption requirements of WCA and the standard of review stated in the WCA rule. Based on the standard of review contained in WCA, the dispute resolution committee decided on a 3-2 vote to recommend affirming the decision of the Pioneer-Sarah Creek WMC to deny the exemption per the attached draft Order. *Decision Item*

Wetland Committee

1. City of Cloquet Wetland Management Plan - On September 30, 2003, the BWSR Wetland Committee recommended approval of the City of Cloquet Wetland Management Plan contingent upon adoption of the Plan into ordinance. The BWSR staff also recommends approval of the Plan. The Plan complies with Minnesota Rules 8420 and the fundamental wetland planning expectations articulated by BWSR. The Wetland Management Plan was developed with assistance from the local/state agency technical panel and local advisory committees. The Plan will be effective upon adoption by ordinance and be used in conjunction with the City Comprehensive Land Use Plans. See attached. *Decision Item*
2. Lake of the Woods County Wetland Management Plan - On September 30, 2003, the BWSR Wetland Committee recommended approval of the Lake of the Woods County Wetland Management Plan contingent upon adoption of the Plan into ordinance. The BWSR staff also recommends approval of the Plan. The Plan complies with Minnesota Rules 8420 and the fundamental wetland planning expectations articulated by BWSR. The Wetland Management Plan was developed with assistance from the local/state agency technical panel and local advisory

committees. The Plan will be effective upon adoption by ordinance and be used in conjunction with the County Comprehensive Land Use Plans. See attached.

Decision Item

3. Replacement Credit for Exceptional Natural Resource Value (ENRV) projects was added to 8420.0541 ACTIONS ELIGIBLE FOR CREDIT in the Wetland Conservation Act (WCA) rule that became permanent on August 5, 2002. Minnesota Rule 8420.0541 Subpart 4 states "Projects that restore exceptional natural resource values of wetlands may receive either public value or new wetland replacement credit solely or in combination as determined by the local government unit with the concurrence of the technical evaluation panel. The amount and type of credit allowed shall be based on a functional assessment that documents the restoration of these values." This formal guidance is necessary as it is defining the application of the rule - see attached. *Decision Item*

New Business

1. LeSueur County Comprehensive Local Water Plan Request for Extension – see attached. *Decision Item*
2. RIM Reserve Easement Alteration of Neil & Betty Johnson Easement #47-07-87-01 in Meeker County – see attached. *Decision Item*
3. RIM Reserve Easement Alteration of Barry Nelson RIM Easement #76-01-98-03 in Swift County – see attached. *Decision Item*
4. Heron Lake Watershed District Enlargement – The Village of Lime Creek and Murray County filed a petition to enlarge the Heron Lake Watershed District. The proposed enlargement would add the Village of Lime Creek to the watershed district. The Village of Lime Creek is contiguous to the watershed district and water flows from the village into the watershed district. A legal notice of filing was published in the local newspaper and also mailed to the Murray County Auditor, Murray SWCD, and the watershed district. No requests for a public hearing were received and one comment was received within the specified time period in the legal notice. The one comment received was from the Murray SWCD board recommending approval of the enlargement. Staff recommend approval of the enlargement per the attached draft Order. *Decision Item*
5. Red River Basin Commission (RRBC) - Lance Yohe, RRBC Executive Director, will present the RRBC Three-Year Work Plan. The Legislature has appropriated \$100,000 each year for the next two years in support of the Red River Basin Commission. Minnesota's dollars are matched by proportional grant from North Dakota, Manitoba, and South Dakota as well as from local water resource management authorities from each of the States and the Province. I currently serve on the RRBC as the Governor's representative and the Work Plan reflects the priorities of the Commission and approval of the grant is recommended. See the RRBC web site specifically the vision and goals for additional supporting information. <http://www.redriverbasincommission.org/Goals/goals.html> *Decision Item*

6. Metro Surface Water Management Rule (MN Rules 8410) Revision. The goal of the Metro Surface Water Management Rule - MN Rules Chapter 8410 (Rules) revision is to build on BWSR's experience implementing the Metropolitan Surface Water Management program by moving away from an overly prescriptive one-size-fits-all approach to a more result-oriented framework. In essence, future watershed plans would consist of periodically updated inventories and goals, and frequently updated implementation and capital improvement plan sections. See attached - *Information Item*
7. Watershed District Appeal Rules - Staff have developed a first draft of the proposed BWSR state rules for appeal of Watershed District permits and rules by transportation authorities. A meeting of the principal parties (MAWD, AMC, MNDOT) will be held October 14th. The goal is to have "exempt" rules adopted in January. An update of an MOU between MAWD, MNDOT, BWSR and AMC is also planned. See attached. *Information Item*
8. Comprehensive Local Water Management - Staff will be providing an update on the development of new comprehensive local water management plan guidance resulting from changes to statute and the repeal of rules this past legislative session. These changes were a result of a number of factors including, proposed cuts to implementation funding, recommendations that had come out of the Board's water planning unification efforts, and lastly, the fact that the statute and rule had not been revised for nearly 15 years. See attached. *Information Item*
9. Legislative Initiatives – See attached - *Information Item*

If you have any questions regarding the agenda, please feel free to give me a call at 651-296-0878. The meeting will adjourn about 2:00 p.m.; lunch will be provided. I look forward to seeing you on October 22nd!

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET
LOWER LEVEL CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
WEDNESDAY, OCTOBER 22, 2003**

PRELIMINARY AGENDA

9:00 a.m. Call Meeting to Order

Pledge of Allegiance

Adopt Agenda

Minutes of August 28, 2003

Open Mike (10-minute agenda time, two-minute limit/person)

Reports

- Chair – Jerome Deal
- Executive Director – Ron Harnack
- Dispute Resolution Committee – Jerome Deal
- Wetlands Committee – Clair Nelson
- Cost-Share/Soil Conservation Committee – Dwain Otte
- Education and Public Relations Committee – Kay Cook
- Administrative Advisory Committee – Jerome Deal

Agency Reports

- Minnesota Department of Agriculture – Perry Aasness
- Minnesota Department of Health – Dan Wilson
- Minnesota Department of Natural Resources – Gene Merriam
- Minnesota Extension Service – Jim Anderson
- Minnesota Pollution Control Agency – Lisa Thorvig

Committee Recommendations

Metro Water Plan Review Committee

1. North Cannon River Watershed Management Organization
Watershed Management Plan – *Decision Item*
2. Washington County Groundwater Protection Plan – *Decision Item*

Southern Water Plan Review Committee

1. Winona County Comprehensive Local Water Plan – Mary Kells -
Decision Item

Dispute Resolution Committee

1. WCA Appeal of an Exemption Decision, City of Independence, Hennepin County, File 03-10 – Jim Haertel – *Decision Item*

Wetland Committee

1. City of Cloquet Wetland Management Plan – *Decision Item*
2. Lake of the Woods County Wetland Management Plan – *Decision Item*
3. Replacement Credit for Exceptional Natural Resource Value (ENRV) – Dale Krystosek – *Decision Item*

New Business

1. LeSueur County Comprehensive Local Water Plan Request for Extension – Chris Hughes – *Decision Item*
2. RIM Reserve Easement Alteration of Neil & Betty Johnson Easement #47-07-87-01 in Meeker County – Tim Fredbo – see attached. *Decision Item*
3. RIM Reserve Easement Alteration of Barry Nelson Easement #76-01-98-03 in Swift County – Tim Fredbo – see attached. *Decision Item*
4. Heron Lake Watershed District Enlargement – Jim Haertel – *Decision Item*
5. Red River Basin Commission Three-Year Work Plan – Lance Yohe – *Decision Item*
6. Metro Surface Water Management Rule (MN Rules 8410) Revision – Jim Haertel – *Information Item*
7. Watershed District Appeal Rules - Jim Haertel - *Information Item*
8. Comprehensive Local Water Management - Doug Thomas – *Information Item*
9. Legislative Initiatives – Ron Harnack – *Information Item*

Advisory Comments

- Association of Minnesota Counties (AMC) – Dave Weirens
- Minnesota Association of Conservation District Employees (MACDE) – Rick Reimer

- Minnesota Association of Soil and Water Conservation Districts (MASWCD) – LeAnn Buck
- Minnesota Association of Townships (MAT) – Sandy Hooker
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Upcoming Meetings

- MASWCD Annual Meeting, November 30 – December 2, 2003, Radisson South, Bloomington
- MAWD Annual Meeting, December 4 – 6, 2003, Arrowwood, Alexandria
- AMC Annual Meeting, December 8 – 10, Hyatt Regency Hotel, Minneapolis
- Next Board Meeting, December 17, 2003, St. Paul

Adjourn

TEMPORARY PARKING PERMIT

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET
Lower Level Conference Room**

DATE: Wednesday, October 22, 2003

QUESTIONS, PLEASE CALL 651-296-3767.

**Parking is available across the street from the building in the northwest corner of the Wabasha Deli parking lot. Display this "temporary parking permit" on your vehicle's dashboard.
Thank you.**

DRAFT

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**BOARD OF WATER AND SOIL RESOURCES
PINE POINT ROOM at the EVENTS CENTER
SHOOTING STAR CASINO HOTEL
MAHNOMEN, MINNESOTA
THURSDAY, AUGUST 28, 2003**

BOARD MEMBERS PRESENT: Jerome Deal, Perry Aasness, MDA; Kevin Anderson, Kay Cook, Wayne Edgerton, DNR; Quentin Fairbanks, Jack Frost, Karen Harder, Char Kahler, Paul Krabbenhoft, Randy Kramer, Clair Nelson, Victor Ormsby, Dwain Otte, Lisa Thorvig, MPCA; Dan Wilson, MDH.

BOARD MEMBERS ABSENT: Jim Anderson, Minnesota Extension Service

STAFF PRESENT: Ron Harnack, Doug Thomas, Ron Shelito, Jim Haertel, John Jaschke, Brian Dwight, Bill Best, Bill Eisele, Keith Grow, Mary Jo Anderson

ADVISORS PRESENT:

Scott Hoese, Minnesota Association of Soil & Water Conservation Districts
Ray Bohn and Tom Ebnet, Minnesota Association of Watershed Districts
Bryan Malone, Minnesota Association of Conservation District Employees

OTHERS PRESENT:

Kevin Scheidecker, Red River Basin Commission

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

Pledge of Allegiance

- ** Adopt Agenda** – Moved by Char Kahler, seconded by Jack Frost, to adopt the agenda as presented. Motion passed on a voice vote.
03-61
- ** Minutes of July 23, 2003** – Moved by Jack Frost, seconded by Randy Kramer, to approve the minutes of July 23, 2003, as circulated. Motion passed on a voice vote.
03-62

Reports

Chair's Report – Chair Deal stated that the EQB did not meet this month. Chair Deal reported that he and Ron Harnack have made new BWSR committee assignments. The Dispute Resolution Committee members are: Jerome Deal, Karen Harder, Char Kahler, Clair Nelson, Dwain Otte and staff support is Jim Haertel. This committee is effective immediately. The new Committee listing will be distributed via e-mail to board members shortly.

- ** Moved by Chair Deal, seconded by Lisa Thorvig, to nominate Char Kahler as Vice-Chair. Nominations ceased. Motion passed on a voice vote.**
03-63

Executive Director – Ron Harnack thanked Ron Shelito, Bill Best, and Mary Jo Anderson for setting up the tour yesterday. The tour covered a lot of different programs and issues creating outcomes through the efforts of local governments independently or in partnership with the State. Ron mentioned that the budget process for next year is beginning. BWSR has three initiatives in for bonding (RIM Reserve/CREP; wetland banking for local public roads; and streambank, lakeshore and roadside (SLR). New legislative initiatives must be submitted by October 1, 2003. Ron will use the Administrative Advisory Committee for review of these initiatives. Ron introduced Bill Eisele, newly hired Administrative Services Director.

Dispute Resolution Committee – Jim Haertel reported that a new appeal has been filed regarding the City of Shevlin ditch issue, located east of Bagley. The appeal in the City of Foley regarding a wetland delineation has been denied. Jim reported that an appeal in St. Louis County regarding a restoration order has been remanded.

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The Education Committee, Cost-Share Committee, and Wetlands Committee did not meet this month.

Administrative Advisory Committee – Chair Deal stated that the Administrative Advisory Committee consists of the Board Chair, Vice-Chair, the chair of each committee, Ron Harnack, and Mary Jo Anderson.

Agency Reports

Perry Aasness, Minnesota Department of Agriculture (MDA), reported that an infestation of aphids has become a problem. There is also an infestation of gypsy moths in trees found in St. Cloud, Blaine and St. Paul. This infestation has impact on tree population and is important to control. Perry reported that MDA is involved in the Clean Water Cabinet efforts and the impaired waters initiatives.

Dan Wilson, Minnesota Department of Health (MDH), reported that Doug Mandy has been hired to replace Gary Englund as manager of the Drinking Water Protection Section.

Wayne Edgerton, Department of Natural Resources (DNR), distributed the "2003 Guide to Buying a Minnesota Deer License." Wayne stated that the fall hunting seasons are now upon us. Overall, the wildlife populations look good to excellent. DNR hopes to see an increased deer harvest this fall, and expect to see a very good pheasant harvest in the southern part of the State. Wayne stated that some of the recent increases in the pheasant population can be attributed to successful land retirement programs such as a RIM Reserve, CREP and CRP.

Wayne reported that DNR will begin another year of intensive testing for Chronic Wasting Disease (CWD) in the wild deer herd. In 2002, DNR tested about 4400 deer that were hunter harvested; there were no positive tests from the wild deer tested. This year DNR hopes to triple the number tested, samples will be collected at 135 big game registration stations in 60 permit areas across the State. Wayne reported that the new importation restriction for hunter harvested cervids (deer, elk, moose, caribou) from other states as well as Canada will be effective this fall.

Wayne reported that there was a fish kill on the main stem of the Red River earlier this week. A large number of dead fish were sighted near Fargo-Moorhead. Preliminary investigations indicate low oxygen level due to low water levels and high temperatures was the cause of the kill.

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Wayne reported that Commissioner Merriam will present two youth awards at the State Fair on Friday. An award went to the Barber Flyers 4-H Club in Faribault County who developed a bluebird trail on a DNR wildlife management area; and the other award was presented to Gary Delaney from Perham High School in Ottertail County for tree planting and a water quality study he developed for his Future Farmers of America (FFA) project.

Lisa Thorvig, Minnesota Pollution Control Agency (MPCA), reported that Commissioner Corrigan has charged that Lisa's number one priority is impaired waters. Four or five excellent meetings have been held regarding impaired waters. A partners group meeting will be held on September 18, at the Science Museum in St. Paul, to review and critique the stakeholders impaired waters group. Lisa reported that TMDL studies are mandated, Long Prairie River is being studied by MPCA. The Alexandria Wastewater Treatment Center has challenged MPCA on their study. Lisa stated that the new federal feedlot rules will be a controversial issue in the State. MPCA is working with the League of Minnesota of Cities to look at how infrastructure needs might be used to clean up impaired waters, as this relates to the new federal stormwater rules.

New Business

03-64 ** Clay County Request for Comprehensive Local Water Plan Extension – Pete Waller presented the Clay County request and recommends approval of Clay County's two-year extension request to December 31, 2005. Moved by Clair Nelson, seconded by Jack Frost, that the Board approves the extension of the Clay County Comprehensive Local Water Plan until December 31, 2005. Motion passed on a voice vote.

03-65 ** Pine County Comprehensive Water Plan Update – Keith Grow presented the Pine County Plan update. Keith reported that on July 15, 2003, the Pine County Board of Commissioners adopted Minnesota Rules Chapter 7080 for Individual Sewage Treatment Systems countywide. Staff recommends approval of the Plan update, which is in conformance with the requirements of Minnesota Statutes 1990, 103B.301 and Minnesota Rules Chapter 9300. Lisa Thorvig stated that Pine County has not applied for the delegated feedlot program, although not mandated, the County has not taken on the program; MPCA has funding available to them if they apply. Jack Frost asked if a letter could be sent to encourage Pine County to apply for this funding. Ron stated that Pine County has to match the funding. Moved by Lisa Thorvig, seconded by Clair Nelson, to approve the Pine County Comprehensive Water Plan Update. Motion passed on a voice vote.

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Middle-Snake-Tamarac Rivers Watershed District and South Two Rivers Watershed District Boundary Change – Jim Haertel reported that the Boards of Managers of the Middle-Snake-Tamarac Rivers Watershed District and the South Two Rivers Watershed District filed a petition to change the common boundary of the two watershed districts. Each of the two watershed district boards of managers had adopted resolutions authorizing the boundary change prior to signing the petition. The petition for the boundary change was filed based on the hydrology of the petitioned area. The proposed boundary change affects 16.81 square miles of land in Marshall, Kittson and Roseau Counties. A legal notice of filing was published in four local newspapers and also mailed to affected counties, cities, and SWCD's. No requests for a public hearing were received and no comments were received within the specified time period in the legal notice. Approval of the boundary change would place each of the two boards of managers in charge of the waters that drain into their respective watershed districts. Staff recommends approval of the boundary change. Moved by Jack Frost, seconded by Victor Ormsby, that the Board approves the Middle-Snake-Tamarac Rivers Watershed District and the Two Rivers Watershed District boundaries are changed per the Order. Motion passed on a voice vote.

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03-66

Chair Deal called for a break in the meeting at 10:00 a.m. The meeting reconvened at 10:15 a.m.

Funding Approval for Local Water Management Challenge Grant Projects – Wayne Zellmer reported that at the Board's June 25, 2003 meeting, a resolution was passed to solicit requests for proposals for projects to accelerate implementation of local water management plans. Wayne reported that 66 applications were received, a total of \$1,504,028 funds requested. Bill Best presented the applications, summary and ranking. Wayne stated that staff recommend approval of the Local Water Management Challenge Grant Projects as presented. Discussion followed. Randy Kramer asked if there is a summary report, so the information is shared among counties to save costs, and duplication minimized. Project summaries will be distributed to board members. In addition, the annual local water management conference does present many key successes and failures from the challenge grants. Moved by Jack Frost, seconded by Dwain Otte, that the Board approves projects #1 – #19 on the list be funded from the Environmental Trust Fund. These projects will receive half of project dollars requested immediately, and the remaining project dollars after the Legislative Commission on Minnesota Resources appropriates the Fiscal Year 2005 funds to the BWSR (anticipated to be early July 2005). Any approved project not submitting a project workplan by November 1, 2003, may have their funding revoked and the next highest-ranking project will be offered

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03-67

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the available funds. Funding of projects #4 (Washington SWCD) and #9 (Stearns SWCD) will be contingent upon a resolution by the county or watershed district with jurisdiction in the SWCD's area granting them authority to receive and administer the funds for the project. The Board approves projects #20 and #21 on the list to be funded from the Great Lakes Protection Fund. These projects will receive the entire project amount of the project workplan. Motion passed on a voice vote.

03-68 ** FY04 Non-Point Engineering Assistance (NPEA) Base Grants – Wayne Zellmer reported that this is a noncompetitive annual grant allocated to the 11 SWCD Joint Powers Boards (JPBs). It is to be used by each JPB to provide engineering/technical services to help landowners to implement erosion control and water quality improvement practices. The Cost-Share Committee recommended this allocation procedure at their April 23 meeting. Wayne stated that all FY04 Joint Powers Board (JPB) budgets, including "budget shortfall plans" have been approved by board conservationists. Staff recommends approval of the FY04 NPEA Base Grants. Moved by Dwain Otte, seconded by Paul Krabbenhoft, to fund the eleven JPBs base grants. Dwain Otte stated that MASWCD will have seven areas and will have seven JPBs. Motion passed on a voice vote.

Northwest CREP Update and Red River Basin Commission (RRBC) - Kevin Scheidecker gave an update on the 41-member Red River Basin Commission. The challenge is to find commonalities that the Basin can agree on regarding goals and objectives. Kevin stated that the RRBC has coordinated the proposal for CREP in the Red River and is hopeful that the initiative will be included in the Governor's final initiative. Kevin stated that the RRBC is moving forward on CREP. RRBC received a 319 grant from MPCA for work on buffers. The RRBC is also working with Pheasants Forever on buffers.

Kevin gave an update on the Northwest CREP. He explained how CREP can be provided as a tool on the Dalen Coulee project and how CREP will fit into the SWCD and watershed district project efforts. The Northwest CREP would focus on buffers and wetland restorations in conjunction with local project work team flood damage reduction initiatives. Kevin stated that the three basins: southwest, southeast, and northwest (Red River Valley) are unified in a three-area CREP. Chair Deal thanked Kevin for his update.

CREP Second Generation Update – Ron Harnack reviewed the Minnesota CREP-2 Application Proposal 2003. There seems to be strong support for including all three areas in the CREP-2. Ron stated that agencies met with the

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Governor and staff last week to review the remaining issues and expects that the Governor will make a decision on the remaining issues in the next few weeks. The Governor's office will meet with the Minnesota Congressional Delegation on CREP-2 and then with FSA to review the state's position. It's hopeful that there can be agreement with FSA on conservation easement duration and acre caps options. Ron continues to carry the Board's position that permanent easement should be an adoption, but not at the expense of CREP-2 (Option C). Discussion followed. There was considerable discussion regarding the voluntary nature of the program and the flexibility for landowners to choose what works for them.

Clean Water Cabinet Update – Ron Harnack reported on the Governor's effort on Minnesota's water resources. Ron stated that the Clean Water Cabinet is substantially different from the impaired waters effort. The Clean Water Cabinet looks at all water issues not just water quality. The Clean Water Cabinet consists of the Governor's Deputy Chief of Staff Bob Schroeder, chair; MDA Commissioner Gene Hugoson, DNR Commissioner Gene Merriam, MPCA Commissioner Sheryl Corrigan, MDH Commissioner Dianne Mandernach; select membership from EQB, and BWSR Executive Director Ron Harnack. Two meetings of the Clean Water Cabinet have been held to clarify the purpose and timeline for the efforts; and approve project recommendations from the Steering Team. Doug Thomas discussed the role of the Clean Water Steering Team, which is working together aligning resources and priorities. The Steering Team has a deadline of September 18 to make recommendations for pilot projects in the four areas. Doug is taking the lead on the Red River Project Team, which will identify local strategies to meet the goals/objectives and roles of different parties. The Red River Project Team has their first meeting today to discuss projects. Ron asked board members to contact him if they have questions or comments. Lisa Thorvig stated that it's exciting that a Governor is telling his Commissioners to look for more funding, and that water resources is a priority, and for the Governor to see that we can work together and look at long-term stable funding for water resources programs.

Advisory Comments

Bryan Malone, Pennington SWCD, representing Minnesota Association of Conservation District Employees (MACDE), reported that MACDE has a web site www.mnacde.org. Bryan reported that MACDE is working on a professional development committee for training. MACDE's next meeting is September 19.

Scott Hoese, President, Minnesota Association of Soil and Water Conservation Districts (MASWCD), reported that MASWCD is proposing to change three area boundaries. Scott thanked John Jaschke for his efforts working with MASWCD

BWSR Meeting Minutes
August 28, 2003
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on this. Scott reported that the MASWCD annual meeting will be held November 30 – December 2, 2003, at the Radisson South in Bloomington. Scott thanked BWSR for the invitation to attend the tour yesterday. Scott reported that SWCDs have received a total of \$14.5M for EQIP.

Tom Ebnet, President, Minnesota Association of Watershed Districts (MAWD), thanked BWSR for the invitation to attend the tour. Tom congratulated Jerome Deal on his appointment as Chair of BWSR. Tom reported that MAWD has been attending the impaired waters meetings. MAWD's annual meeting will be held December 4-6, 2003, at the Arrowwood in Alexandria. The next MAWD Board of Directors' meeting will be held September 12, 2003 at the Holiday Inn, in Alexandria.

Upcoming Meetings

Next BWSR Meeting, September 24, 2003, in St. Paul.

Chair Deal thanked staff for organizing the tour and meeting facilities.

The upcoming convention dates will be included in the next Board meeting notice. Ron asked that board members attend conventions of the associations they are not affiliated with, it's good cross-education between organizations.

** Moved by Clair Nelson, seconded by Victor Ormsby, to adjourn the meeting at
03-69 12:05 p.m. Motion passed on a voice vote.

Respectfully submitted,

Jerome Deal
Chair

Dispute Resolution Report
October 9, 2003
by Jim Haertel

There are presently ten appeals pending. All of the appeals involve WCA. Two new appeals has been filed since the last report of September 11.

There is an appeal of an exemption decision in Morrison County. The appeal regards a road that was upgraded and the denial of a forestry exemption. A cease and desist order and a restoration order have been issued. The appeal has been remanded for a hearing.

There is an appeal of a restoration order in Goodhue County. The appeal involves the Shades of Sherwood Campground along the North Fork of the Zumbro River. In addition to the WCA violation there is also a violation of DNR protected waters. No decision has been made on accepting the appeal.

There is an appeal of a no-loss decision in the City of Hermantown near Duluth in St. Louis County. The site is an old refinery where Superfund cleanup has been done and is continuing. There are questions about the extent of wetlands on the property and whether a consent decree applied to the whole site. The appeal has been accepted.

There is an appeal of a restoration order in the City of Shevlin in Clearwater County. The appeal involves a ditch cleanout that went through a wetland. The ditch work was done to reduce high water problems in the city. A meeting was held on September 26. The restoration order and appeal are presently in abeyance pending further technical work to give the city and landowners some alternatives to resolve the matter.

There is an appeal of a restoration order in St. Louis County. The proposed project involves an access road and a shooting range. The appeal is in abeyance pending a decision by the LGU on a replacement plan application.

There is an appeal of a no-loss decision and two exemption decisions made by the Vadnais Lake Area Water Management Organization in Vadnais Heights, Ramsey County. The proposed project is for a residential development. The appeal is in abeyance since it was remanded to the WMO for an expanded TEP. Under remand the WMO made the same decision as before, and that decision has now been appealed. The present appeal was remanded again for further technical work.

There is an appeal of an exemption decision in the City of Independence in Hennepin County. The appeal involves a commercial horse boarding facility. The appeal was accepted, a pre-hearing conference was held on July 29, and a hearing before the DRC was held on September 24. The appeal is on the October 22 board agenda for action.

There is an appeal of a no-loss decision in Meeker County. At issue is the wetland delineation. The project involves wetland fill for a garage. The appeal is being held in

abeyance pending further technical evaluation work, however, it appears a settlement agreement may be reached between the county attorney and the landowner.

Another appeal is of a replacement plan in the City of Albertville in Wright County. The project involves filling a wetland for landscaping purposes. The appeal is in abeyance since it has been remanded to the city because a TEP was not held.

Another appeal is of a replacement plan denial in Stearn's County. The appeal involves a single family dwelling site near the Mississippi River. The appeal has been accepted, a pre-hearing was held and the appeal is in abeyance pending the results of a lawsuit between the landowner and the county.

Appeals Filed in 2003 (All WCA)

File No.	LGU Action	County (City)	LGU	Status
03-				
1	Replacement Plan	Hennepin (Brooklyn Center)	Shingle Creek WMO	LGU decision affirmed
2	Replacement Plan	Hennepin (Brooklyn Center)	Shingle Creek WMO	LGU decision affirmed
3	Replacement Plan	Stearns (St. Joseph)	County Board	Denied as meritless
4	Replacement Plan	Lake of the Woods	County Board	Denied as meritless
5	Restoration Order	Douglas (Alexandria)	SWCD	Closed, appeal resolved
6	Exemption/NoLoss	Douglas (Alexandria)	SWCD	Closed, appeal resolved
7	Exemption/NoLoss	Ramsey (Vadnais Heights)	Vadnais Lake Area WMO	Remanded
8	Exemption/NoLoss	Wright	Middleville Township	Remanded
9	Replacement Plan	Washington	Forest Lake	Denied as meritless
10	Exemption/NoLoss	Hennepin	Pioneer-Sarah Creek WMO	Pending, DRC hearing held September 24
11	Restoration Order	St. Louis County	County Board	Pending
12	Exemption/NoLoss	Ramsey (Vadnais Heights)	Vadnais Lake Area WMO	Remanded
13	Wetland Delineation	Benton (Foley)	Benton County	Denied as meritless
14	Restoration Order	Clearwater (Shevlin)	Clearwater County	Pending
15	Restoration Order	Mahnomen County	SWCD	Closed (new R.O. issued)
16	Exemption/NoLoss	St. Louis County (Hermantown)	City	Pending
17	Restoration Order	Goodhue County	SWCD	Pending
18	Exemption/NoLoss	Morrison County	SWCD	Remanded

10/9/03

OVERVIEW

North Cannon River Watershed Management Organization Watershed Management Plan

Background

On September 30, 2003, the BWSR Metro Subcommittee recommended approval of the Watershed Management Plan for the North Cannon River Watershed Management Organization to the BWSR Board. The BWSR Metro Region Staff also recommends approval of the Plan. The Plan does comply with Minnesota Statutes 103B.231 and the fundamental planning expectations articulated by BWSR.

Description of the Watershed

The North Cannon River Watershed Management Organization (NCRWMO) is approximately 150 square miles in size and is located over the southern third of Dakota County and includes all or part of the following communities: Castle Rock, Douglas, Eureka, Greenvale, Hampton, Randolph, Sciota, Waterford Townships and Cities of Miesville, New Trier and Randolph. The Organization does include the subwatersheds of Chub Creek, Trout Brook and Pine Creek and the Cannon River from Northfield to Lake Byllesby. The area is predominantly rural in nature with agriculture as its primary landuse.

Summary of Plan Review Process and Plan Strengths

In a letter dated March 10, 2003 the BWSR commented that the Plan provides a comprehensive inventory/assessment and begins to initiate management activities, but fails to provide the management details of intergovernmental coordination and financial partnerships necessary to effectively address the priority issues in the NCRWMO. BWSR stated that the two general questions that the Plan has yet to address are: 1) Can the WMO fund projects and programs that effectively address major issues, 2) How will the NCRWMO audit and evaluate effective implementation of local plans and ordinances and how will the NCRWMO deal with any failure to implement local regulation?

In response, the NCRWMO stated that it would begin to assess its members annually, although financial resources are limited. If the County allocation is cut, the WMO will work to make up the difference by raising dues or leveraging funds in other ways. The Plan now contains a discussion of possible sources of funding including grant opportunities. The implementation program also contains a section called "Partnering Opportunities" which lists all programs and organizations currently working on projects in the watershed with goals similar to those stated in the Plan.

In a letter dated July 8, 2003, the BWSR stated that the final draft effectively addressed the two main questions defined in the initial plan review letter. The Plan clarified the local and state regulatory controls that govern activities in the watershed and added an additional section focusing on collaboration.

Strengths of the Plan include: 1) Implementing the Chub Creek, Pine Creek and Trout Brook Watershed Assessments, 2) Generally addressing high levels of bacteria, nutrients, and sediment in surface water as well as loss of wetlands, channel alterations, and streambank erosion in the watershed, 3) Partnering on financial incentives such as cost sharing best management practices to protect and improve water quality, 4) defining specific goals and policies to ensure consistency in all local controls.

Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, Minnesota 55107

In the Matter of the review of the Watershed
Management Plan for the **North Cannon River**
Watershed Management Organization pursuant to
MN Statute Section 103B.231, Subdivision 9

**ORDER
APPROVING
WATERSHED
MANAGEMENT PLAN**

Whereas, the Board of Managers for the North Cannon River Watershed Management Organization (NCRWMO) submitted a Watershed Management Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to M.S. Section 103B.231, Subd. 9, and;

Whereas, the Board has completed its review of the Plan;

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions and Order:

FINDINGS OF FACT

1. **District Establishment.** The NCRWMO was created in 1983 as a result of the Surface Water Management Act.
2. **Requirement to Plan.** The Metropolitan Water Management Act requires the preparation of a watershed management plan for the subject watershed area which meets the requirements of Minnesota Statutes Sections 103B.201 to 103B.251.
3. **Nature of the Watershed.** The North Cannon River Watershed Management Organization (NCRWMO) is approximately 150 square miles in size and is located over the southern third of Dakota County and includes all or part of the following communities: Castle Rock, Douglas, Eureka, Greenvale, Hampton, Randolph, Sciota, Waterford Townships and Cities of Miesville, New Trier and Randolph (See enclosed map). The NCRWMO does not include any part of the City of Northfield. The Organization does include the subwatersheds of Chub Creek, Trout Brook and Pine Creek and the Cannon River from Northfield to Lake Byllesby. The area is predominantly rural in nature with agriculture as its primary landuse.
4. **Local Review.** The NCRWMO circulated a copy of the draft Plan to local units of government for their review pursuant to Minnesota Statutes Section 103B.231, Subd. 7,

prior to submittal to the Metropolitan Council.

5. **Metropolitan Council Review.** In a letter dated February 28, 2003, the Council suggested that NCRWMO outline specific goals for wetland protection including preservation and restoration. Further, the Council recommended that a function and value assessment be done at the watershed level with input from member communities. The Council also recommended that the Plan should establish quantifiable goals for streams and lakes in the watershed including numerical goals for Lake Byllesby and Chub Lake. Lastly the Council provided several comments related to their major concerns with Sections 5 and 6, which, in their opinion, have defined an insufficient budget to address the issues in the Watershed.

In response to the Council's initial concerns, the NCRWMO agreed that the member communities will be required to adopt wetland protection ordinances developed by the DSWCD and will be encouraged to seek funding to perform function and value assessments. The WMO will also assist in complying with the water quality regulations defined in MN Rules Chapter 7050. Lastly, the Plan added a new section titled "partnering opportunities" which lists all programs and organizations currently working on projects and describes ways in which the WMO can partner with existing programs to help provide revenue.

In a letter dated June 13, 2003, the Council stated, "The NCRWMO needs to find additional stable funds to help address the issues and problems areas identified in the Plan. Adequate funding is needed to make the NCRWMO a viable organization that can successfully manage the water resources in the watershed." Despite some continuing concerns, the Council stated the NCRWMO "has put together a watershed management plan that has the potential to be a useful tool for local units of government to use in managing their local water resources."

6. **Department of Agriculture Review.** In a letter dated March 13, 2003, the MDA recommended that the NCRWMO add language providing the development of manure management plans, conservation tillage, buffer strips and manure management. The MDA also asked the WMO to examine opportunities for water retention, reduced soil erosion, increases in nutrient cycling through managed grazing system, cover crops and forage production. In response, the WMO stated that the BMP's listed will be promoted and educational material distributed through strategies under "Habitat Quality" and "Information and Education" Goals. In a letter dated June 23, 2003, the MDA stated, "we are impressed with the WMO's cooperation and partnership with other organizations to develop such a careful document".
7. **Department of Health Review.** The MDH did not provide comments on the NCRWMO Plan.
8. **Department of Natural Resources Review.** In a letter dated February 28, 2003, the

DNR suggested that NCRWMO add agriculture to the list of potential land uses that could impact wetlands and also provided comments that required the change of wording in the "Regulatory Framework" section to reflect current terminology. The NCRWMO provide the requested changes to the final draft Plan. In a letter dated July 11, 2003 the DNR stated, "The content of the revised draft of this plan has sufficiently responded to the comments previously submitted by the DNR".

9. **Pollution Control Agency Review.** In a letter dated March 14, 2003 the MPCA informed the WMO that the Chub Lake and Lade Byllesby are on the impaired waters list and scheduled for TMDL's to start in 2003 and 2007. The MPCA also commented that the WMO needs to review the infiltration /filtration portion of the new National Pollution Discharge Elimination System General Storm Water Permit for Construction Activity. In response, the NCRWMO added the schedule for the TMDL development in Section 2.5 and expanded the description of the NPDES Phase II program in the Plan.
10. **Board Review.** In a letter dated March 10, 2003 the BWSR commented that the Plan provided a comprehensive inventory/assessment and begins to initiate management activities, but fails to provide the management details of intergovernmental coordination and financial partnerships necessary to effectively address the priority issues in the NCRWMO. BWSR stated that the two general questions that the Plan has yet to address are: 1) Can the WMO fund projects and programs that effectively address major issues, 2) How will the NCRWMO audit and evaluate effective implementation of local plans and ordinances and how will the NCRWMO deal with any failure to implement local regulation?

In response, the NCRWMO stated that it would begin to assess its members annually, although financial resources are limited. The WMO will also attempt to leverage more funds through grants and will actively partner with programs and organizations already in place. If the County allocation is cut, the WMO will work to make up the difference by raising dues or leveraging funds in other ways. The Plan now contains a discussion of possible sources of funding including grant opportunities. The implementation program also contains a section called "Partnering Opportunities" which lists all programs and organizations currently working on projects in the watershed with goals similar to those stated in the Plan.

In a letter dated July 8, 2003, the BWSR stated that the final draft effectively addressed the two main questions defined in the initial plan review letter. The Plan clarified the local and state regulatory controls that govern activities in the watershed and added an additional section focusing on collaboration.

The NCRWMO final Plan dated July 2003 also included changes in Plan related to the other issues defined in final draft plan review letter.

11. **Highlights of the Plan.** The critical elements included in the Plan are:
- 1) Implementing the Chub Creek, Pine Creek and Trout Brook Watershed Assessments,
 - 2) Generally addressing high levels of bacteria, nutrients, and sediment in surface water as well as loss of wetlands, channel alterations, and streambank erosion in the watershed,
 - 3) Partnering on financial incentives such as cost sharing best management practices to protect and improve water quality,
 - 4) Defining specific goals and policies to ensure consistency in all local controls,
 - 5) Continued rental of native grass drill generating project revenues.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Watershed Management Plan for the North Cannon River Watershed Management Organization pursuant to Minnesota Statutes Sections 103B.231, Subd. 9.
3. The North Cannon River Watershed Management Organization Watershed Management Plan attached to this Order defines water and water-related problems within the NCRWMO boundaries, possible solutions thereto, and an implementation program.
4. The attached Plan is in conformance with the requirements of Minnesota Statutes Sections 103B.201 to 103B.251.

ORDER

The Board hereby approves the attached Plan as the Watershed Management Plan for the North Cannon River Watershed Management Organization.

Dated at Saint Paul, Minnesota this 22nd day of October 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Jerome Deal, Chair

OVERVIEW

Washington County Groundwater Protection Plan

On September 30, 2003, the BWSR Metro Subcommittee recommended approval of the Washington County Groundwater Protection Plan to the BWSR Board. The BWSR Metro Region Staff also recommends approval of the Washington County Groundwater Protection Plan. The Plan does comply with Minnesota Statutes 103B.255 and the fundamental planning expectations articulated by BWSR. The Plan accurately reflects a management and implementation framework consistent with the recommendations provided by the Washington County Groundwater Advisory Committee.

Nature of the Groundwater in County

Groundwater provides 100 percent of the drinking water and virtually all the water for commercial, industrial and irrigation needs of Washington County. Groundwater is also vital for maintaining the quality and quantity of water in many lakes, wetlands and streams. Much of Washington County groundwater originates almost entirely within its own borders.

Summary of Plan Review Process and Plan Strengths

In a letter dated March 4, 2003, The BWSR asked several questions on the overall management approach provided by the Plan, including: 1) Does the County have a contingency plan for continuing with the approved LCMR land use /groundwater integration study in Afton and Woodbury? 2) How will the Plan incorporate the northern Washington County recharge /groundwater study information? 3) Will the County be developing guidance for local communities on the influence of groundwater on surface water flooding issues? 4) Will the County provide a comprehensive county inventory of significant areas of groundwater /surface water interaction and provide model standards and ordinances? 5) Could County develop a schedule according to target priority areas including lakeshore and nitrate "hotspot" areas?

The County responded that the Plan is more general in nature and does not address specific workplans but the LCMR funding was granted to the above-mentioned project. The County also identified several implementation actions defined by the North Washington County Groundwater Study, which will serve as a template for the upcoming South Washington County Groundwater Study. The County does plan to address the subject of ordinance/rule development and County-wide consistently as part of the Washington County Water Consortium. The County also plans to work with the Washington County Groundwater Advisory Committee to develop a yearly work plan for identifying ISTS priority areas.

Strengths of the Plan include clearly defined section identifying responsible action leaders and action team members for addressing each of the eight priority groundwater issues, necessary strategies for effective groundwater management in a rapidly developing county, concise implementation section with identified management standards and activities for groundwater and related surface water management issues, and communication and partnership with cities and watershed management organizations on management and regulation programs. The BWSR Metro Staff commends Washington County for a very well written, clear and concise document that meets the statutory requirements. Washington County has successfully created a plan that incorporates a highly documented data inventory with a locally driven education and regulatory program.

Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, Minnesota 55107

In the Matter of the review of the Groundwater
Protection Plan for **Washington County**
pursuant to Minnesota Statutes Section
103B.255, Subdivision 10.

**ORDER
APPROVING
GROUNDWATER
PROTECTION PLAN**

Whereas, the Washington County Board of Commissioners for Washington County submitted a Groundwater Protection Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to M.S. Section 103B.255, Subd. 10, and;

Whereas, the Board has completed its review of the Plan;

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions and Order:

FINDINGS OF FACT

1. **Requirement to Plan.** Minnesota Statutes 103B.255 directs counties to coordinate groundwater plan implementation efforts and gives counties authority to enter into agreements with local units of government and watershed organizations establishing responsibilities during implementation of the groundwater plan.
2. **Nature of the Groundwater in County.** Groundwater provides 100 percent of the drinking water and virtually all the water for commercial, industrial and irrigation needs of Washington County. Groundwater is also vital for maintaining the quality and quantity of water in many lakes, wetlands and streams. Much of Washington County groundwater originates almost entirely within its own borders.
3. **Local Review.** Washington County circulated a copy of the draft Plan to local units of government for their review pursuant to Minnesota Statutes Section 103B.255, Subd. 8, prior to submittal to the Metropolitan Council.
4. **Metropolitan Council Review.** The MCES comments focused on providing additional information about the relationship and possible conflicts between the groundwater plan and the plans of other counties, LGU's and watershed management organizations in the

affected groundwater system. The Council also recommends that the Plan reference the new Blueprint 2030 rather than the 1996 blueprint that the plan referenced. In response, the County added language to address the relationship of the Plan to with other local and regional plans. In a letter dated February 28, 2003 the Council stated, "Council commends the County for preparing a very progressive plan that addresses a variety of issues related to protecting groundwater and recommends the BWSR approve the Plan".

5. **Department of Agriculture Review.** The MDA did not provide comments on the Washington County Groundwater Management Plan.
6. **Department of Health Review.** In an email dated February 10, 2003, the MDH provide further specifications on the definition for Special Well Construction Areas and provided minor wording revisions for the introduction section. In response, the County replaced the definition and incorporated the language as recommended.
7. **Department of Natural Resources Review.** In a letter dated February 21, 2003, the DNR, Division of Waters commented that the Plan should include a quantification of groundwater recharge using actual flows. The DNR also stated that the concern statement for high nitrates may be misleading and should be put into perspective by indicating the number of wells sampled. Lastly, the DNR recommended additional statements reflecting the Department's role in approving water emergency and conservation plans, and ensuring adequate long-term water supply. Washington County responded by adding well testing data to text and changed wording to reflect the Departments role in water planning.
8. **Pollution Control Agency Review.** The MPCA did not provide comments on the Washington County Groundwater Management Plan.
9. **Board Review.** In a letter dated March 4, 2003, The BWSR commended Washington County Department of Public Health and Environment and asked several questions on the overall management approach provided by the Plan, including: 1) Does the County have a contingency plan for continuing with the approved LCMR land use /groundwater integration study in Afton and Woodbury? 2) How will the Plan incorporate the northern Washington County recharge /groundwater study information? 3) Will the County be developing guidance for local communities on the influence of groundwater on surface water flooding issues? 4) Will the County provide a comprehensive county inventory of significant areas of groundwater /surface water interaction and provide model standards and ordinances, through the water consortium, for local management of these areas? 5) Could County develop a schedule for implementing the assessment /enforcement of the new ISTS risk criteria and could the County schedule according to target priority areas including lakeshore and nitrate "hotspot" areas? 6) Could the plan include the related groundwater ordinances as appendices?

The County responded that the Plan is more general in nature and does not address specific workplans but the LCMR funding was granted to the above-mentioned project. The County also identified several implementation actions defined by the North Washington County Groundwater Study, which will serve as a template for the upcoming South Washington County Groundwater Study. The County does plan to address the subject of ordinance/rule development and County-wide consistently as part of the Washington County Water Consortium. The County also plans to work with the Washington County Groundwater Advisory Committee to develop a yearly work plan for identifying ISTS priority areas.

The BWSR Metro Staff would like to formally commend Washington County for a very well written, clear and concise document that meets the statutory requirements. Washington County has successfully created a plan that incorporates a highly documented data inventory with a locally driven education and regulatory program.

10. **Highlights of the Plan.** The critical elements included in the Plan are:
- a. clearly defines the responsible action leaders and action team members for addressing each of the eight priority groundwater issues;
 - b. the Plan addresses all the issues necessary for effective groundwater management in a rapidly developing county;
 - c. concise implementation section with identified management standards and activities for: 1) agricultural practices, 2) non-agricultural contributors to groundwater impacts, 3) ISTS, 4) groundwater supply, and 5) integration between groundwater and surface water management;
 - d. communication and partnership with cities and watershed management organizations on management and regulation programs.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Groundwater Protection Plan for Washington County pursuant to Minnesota Statutes Section 103B.255, Subd. 10.
3. The Washington County Groundwater Protection Plan attached to this Order defines groundwater and groundwater-related problems within the County boundaries, possible solutions thereto, and an implementation program.
4. The attached Plan is in conformance with the requirements of Minnesota Statutes Section

103B.255.

ORDER

The Board hereby approves the attached Plan as the Groundwater Protection Plan for Washington County.

Dated at Saint Paul, Minnesota this 22nd day of October 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Jerome Deal, Chair

EXECUTIVE SUMMARY

Purpose

The Winona County Comprehensive Water Plan was developed under the legislative authority and mandate of the Comprehensive Local Water Management Act (Minnesota Statutes, Chapter 110B) and implemented through MN Rules Chapter 9300.

The purpose of water planning as stated in MN Rules Chapter 9300 is to 1) identify existing and potential problems and opportunities for the protection, management, and development of water and related land resources and; 2) develop objectives and carry out a plan of action to promote sound hydrologic management of water and related land resources.

The first water plan in Winona County was written in 1990. This is the 2nd plan. This updated plan will be in effect from 2003 until 2010.

The first water plan and this updated version address many of the same problems. The karst geology and steep topography have remained a significant factor in protecting and restoring the water resource quality of Winona County. Concerns about storage and transport of polluting materials in karst settings also remain an issue. Nonpoint pollution from agricultural and urban areas is still of significant concern.

The differences between the first plan and this updated plan relate more to the techniques used for addressing problems rather than the problems themselves. Watershed management was not developed as a management concept in the early 1990s when the first water plan was being written. Addressing polluted stormwater runoff through low impact development was not a common technique used in 1990 nor was protecting public water supplies through wellhead protection pollution prevention efforts. Using the county's geographic information system to display a number of inventories of landscape features and pollutant sources is a new capability that has only come about in the last few years.

The first water plan organized goals, objectives, and action items under nine issue headings with a goal statement related to each. The updated plan states 13 broad resource goals. These goals were taken from existing water resource related laws and rules or previous planning activities. The implementation of the action items to meet the new plan's objectives will also bring the county forward in achieving a number of the resource-related goals. The objectives and actions are categorized into four strategy areas. These four categories are **1. Landscape/Watershed Management, 2. Specific Protection of Groundwater, 3. Pollution Prevention, and 4. Storage and Transport of Polluting Materials.**

Accomplishments

Over 100 action items were planned under the 1990 Winona County Water Management Plan. Staff and monetary activities were focused on a subset of these action items. These accomplishments include:

Well/Groundwater

- Updated and implemented the Winona County Water Quality Ordinance, including well code enforcement.
- 911 new wells have been constructed and inspected since the adoption of the ordinance.
- In the mid-nineties, two cost-share initiatives to seal abandoned wells were undertaken by the SWCD using State funds. Twenty-two wells were sealed under this program. In total, 329 wells have been sealed.
- Private well sampling primarily for nitrate and coliform has been conducted through Environmental Services with over 2,125 samples processed since 1990. Cost of analyses has been waived for low -income families.
- Six nitrate testing clinics have occurred in the County since 1995.
- Environmental Services has provided public education and information regarding well water quality and well code information at the Winona County Fair and Farm and Home Show.
- Brochures have been distributed to the hospital and local clinics regarding Blue Baby Syndrome and information regarding nitrate testing.
- Winona County Extension and SWCD worked with several rural residents to identify potential pollution using the Farm*A*Syst program.

Feedlots

- Winona County is a delegated county for the administration of the MPCA Feedlot Rules. Inspection, enforcement and assistance are provided to operators on a day to day basis.
- Hired a full time feedlot officer/educator in 1997 who educates and enforces the County Zoning Ordinance regarding feedlots.
- Established with Winona County Extension, a Feedlot Study Committee in 1997. This committee meets on a regular basis to discuss broad feedlot issues. The Committee also makes recommendations to the Planning Commission and County Board relating to policy, rule changes and program ideas.
- Developed a record keeping process to document and analyze manure land application plans through a BWSR challenge grant. This program utilizes the Geographic Information System (GIS).
- Participated in a multi-county 319 grant that has aimed at encouraging feedlot owners to sign the open lot agreement. This grant has been utilized for providing technical help for feedlot owners with runoff concerns and provides manure management planning assistance to feedlot owners.
- 160 sites have gone through the permitting process including the development of manure management plans.
- 85 eligible livestock owners have signed the open lot agreement.
- Cooperating in a University project on OFFSET (Odor from Feedlots-Setbacks Estimation Tool).
- Conducted with Winona County Extension, SWCD, MPCA and MDA, annual informational meetings on the feedlot rules and manure management planning.
- Through the Agricultural Best Management Program (AgBMP) Low-Interest Loan Program made possible by the State Revolving Loan Program (provided by the Minnesota Department of Agriculture) and other State cost share programs, the Winona County SWCD has provided funds and technical assistance in manure management systems. Since 1995, the AgBMP program has funded 19 waste management systems.

Onsite sewage

- Winona County has adopted a Zoning Ordinance that covers the design, construction and inspection of individual sewage treatment systems.
- The County has inspected approximately 2500 onsite septic systems.
- Winona County was a cosponsor for two workshops for septic system professionals held in 1996 and 1997.
- Through the AgBMP Low-Interest Loan Program, the SWCD has provided low interest loans to 32 homeowners to upgrade their systems.
- Worked with SEMWRB on an onsite septic system education program.
- Participated in the County Fair and Home and Garden and on the radio regarding the importance of properly treated wastewater.

Waste Recovery Programs

The Environmental Services Department of the County has developed and implements a number of waste recovery programs.

The comprehensive household hazardous waste collection program includes a permanent collection facility:

- 12,985 residents have participated and 392,042 pounds of household waste has been collected. Where possible, usable products have been exchanged since 1996. This element of the program has included 1,541 participants and 31,271 pounds of product.
- 39,457 gallons of oil have been recovered from 4,191 residents
- 59,958 fluorescent light bulbs collected
- 10,080 wasted appliances collected
- 58,735 waste tires

A "Clean Shop" Program was initiated for businesses that are considered very small quantity hazardous waste generators. Fifty-two very small quantity generators have disposed of 15,375 pounds of hazardous waste through the program.

Environmental Services administers the recycling programs and provides, at reduced cost, backyard compost bins for county residents.

Inventories, Mapping and Modeling

The hiring of a GIS specialist and the development of GIS capability has provided the County with the ability to map and track information on:

- soils and geologic features such as sinkholes,
- well locations,
- pollution source information including feedlots, Leaking Underground Storage Tanks (LUST) sites, and other MPCA investigation and cleanup sites,
- stream and wetland locations,
- floodplain and shoreland zones,
- biological features generated through the County Biological Survey and
- assisted the SEMWRB in inventorying Class V Shallow Disposal Systems.

Zoning

- Updated the comprehensive land use plan.

- GIS modeling provided an invaluable tool for updating the comprehensive land use plan.
- The County has delegated authority and implements the floodplain, shoreland and wetland rules.
- Winona County has historically participated in the Community Rating System of the National Flood Insurance Program.

Soil Erosion and Runoff

- The Winona County SWCD has provided cost share for numerous projects to control erosion including retention basins, tree plantings, conservation tillage and stream bank stabilization. Through the AgBMP Low-Interest Loan Program, seven conservation tillage and one structural erosion control project have been funded since 1995.
- SWCD has provided landowners with technical assistance on soil erosion and conservation projects, and manure storage and manure management planning.
- The Planning Department and the SWCD inspect and provide assistance in resolving soil erosion complaints and enforcing the erosion section of the zoning ordinance.

Pesticide and Fertilizer Education and Use

- Private Pesticide Applicator Training is provided annually by the Extension Service.
- Winona County assists with MDA Waste Pesticide Container Program that is held biannually in the County. 15,264 pounds of pesticide have been collected since 1990.
- Planning Department staff administers the weed inspection program and provides local units of government with up-to-date information through annual meetings.
- The Winona County Extension Office through weekly news column, radio shows and agricultural newsletters as well as field days has provided information on nutrient and pesticide management.

Winona County has succeeded in addressing many of the objectives that were outlined in the 1990 water plan. Several ordinances and related programs have been created or improved since 1990 including the Well Inspection Program, Feedlot Program, ISTS Program, and the Household Hazardous Waste Collection Program. Staff and resources have been focused programmatically. For this reason, the areas where the accomplishments have occurred are where there were funds available to hire staff to do the work.

Winona County also participates in the Agricultural Land Preservation Program. The goal of this program is to preserve farms for long-term agricultural use. To participate in this program, which gives a property tax credit, the farm owner must place a restrictive covenant limiting the use of the property to agricultural and forestry.

Plan organization

This plan is divided in three major chapters 1) Executive Summary, 2) Data and Assessments and 3) Implementation Plan 2003-2010. Maps, Graphs and Tables are located in Appendix 1 and are hyperlinked to where they are mentioned in the text. A summary of the citizen participation process and a copy of the water plan survey are located in Appendix 2. Appendix 3. contains the Implementation Matrix.

Data and Assessments

The Data and Assessment chapter is split into eight sections following the areas outlined in Minnesota Rules Chapter 9300. The eight sections are 1) Physical Environment, Land Use and Development, 2) Water Quantity, 3) Water Quality, 4) Eroding Lands, 5) Pollutant Sources, 6) Karst-Special Geologic Conditions, 7) Wetlands, Floodplains, and Shoreland, and 8) Biological Resources, Unique Features, and Recreation.

The resource base is described in the Physical Environment, Land Use and Development section of the water plan. The five watersheds in the county are the Root River, Whitewater River, Garvin Brook/ Rollingstone Creek, the tributary streams in the southeast corner of the county and the Metro Winona area. These five watersheds all have stream reaches that are designated coldwater trout streams. The bedrock geology is of the Paleozoic age and karst features characterize the carbonate rock formations of the Prairie Du Chien. The soils in the county are generally well drained and are highly erodible due to steep slopes. Land use is predominately agriculture with 44% of the county cultivated and 36% forested. Population in the county has steadily increased since 1970 at an average rate of 4% per decade. Of the 50,000 people that live in the county, about half live in the City of Winona. Infrastructure improvements in water systems and sewage treatment have occurred in most of the communities but there are still pockets of unsewered communities that need system upgrades. Stormwater management has only recently been addressed in a few communities. Agricultural changes have been described as a shift from small grains to more soybean and corn acres which has had an overall negative impact on the water resources.

Water supply has not been a problem in the county. The past decade, however, has generally been wet and southeast Minnesota has not experienced drought conditions. All water supplies are taken from groundwater. Base flow of water in county streams comes from groundwater seeps and springs. Widespread quality issues relate to nitrates, microbial contaminants, pesticides and sediment. Exceedances of the nitrate and coliform standards have occurred in private wells and a few public wells. Herbicides have been detected in wells, springs and surface water samples. Violations of surface water quality standards for the herbicide atrazine have occurred. Fecal coliform standard violations in reaches of Garvin Brook and the Whitewater River have resulted in those streams being considered impaired for swimming.

Erosion is a potential problem in much of the county. Turbidity and sedimentation have impacted habitat in several streams. Reaches of the Garvin Brook and the Whitewater are considered impaired due to turbidity. Karst features play significantly in making the groundwater in a large section of the county susceptible to contamination. Storage of polluting materials in these areas is of concern due to potential sinkhole collapses. The karst landscape also makes it difficult to characterize groundwater quality through monitoring.

Shoreland and floodplain sections of the zoning ordinance is strictly enforced in Winona County. The county has had problems with flooding in the last ten years on certain area streams as well as certain areas adjacent to the Mississippi River.

Cold-water trout streams and the Upper Mississippi River have had a tremendous positive impact on the growth, development and quality of life in Winona County. Water resources have a significant positive impact on tourism and provide for numerous local recreational opportunities in the form of boating, hunting and fishing. The County has several areas that support native plant communities. Almost 10% of the county are in public lands, which includes the Whitewater Wildlife Management Area, sections of the Richard Dorer's State Forest, three state parks and a national wildlife refuge.

Implementation Plan 2003-2010

An implementation plan of action for the next seven years is described. The sixteen resource goals are stated with measurements for tracking progress toward the goals. There are seventeen measurable objectives with 79 related action items. Each action item indicates who will be involved in implementing the action, the projected cost, and the time frame when the action will be implemented. The objectives and actions are categorized into four strategy areas. These four categories are **1. Landscape/Watershed Management, 2. Specific Protection of Groundwater, 3. Pollution Prevention, and 4. Storage and Transport of Polluting Materials.**

Overall priority is given to those actions that will restore and protect sensitive groundwater aquifers that provide many Winona County residents with water. Because of the interrelated nature of land use and water resource quality, a watershed approach to resource management will be encouraged. Effort will be made to support community-based watershed management organizations and to educate the public regarding the importance of a watershed/landscape perspective. The plan promotes education and incentive programs to foster sustainable land use practices, conservation and the maintenance of natural wetlands, floodplains, and riparian buffers for watershed function. The plan indicates that the county will revise the zoning ordinance to improve controls over erosion and stormwater management, and to address development on steep slopes.

To insure that the public understands the pollution sensitivity of groundwater resources, actions are stated to further educate students and the public about karst geology and the need to protect source water areas of public water supplies. Through a cooperative effort with other southeast Minnesota counties, monitoring of groundwater resources will be undertaken. Efforts will be continued to educate individuals about private well protection and the importance of periodic well water testing.

Encouraging least toxic alternatives and wise management of fertilizer, pesticides, and manure is part of the nonpoint pollution prevention strategy. The need for proper onsite septic system maintenance and the sealing of abandoned wells will also be promoted through education, incentives and regulation enforcement. Activities will be undertaken to insure that those who store and transport polluting materials take safeguards to minimize the chance of release and to encourage the development of spill emergency plans.

Minnesota Board of Water and Soil Resources
One West Water Street
Suite 200
St. Paul, Minnesota 55107

In the Matter of Reviewing the Comprehensive Water Plan Update
for **Winona** County (Minnesota Statutes 1990, Section 103B.311,
Subdivision 4 and Section 103B.315, Subdivision 5 and Minnesota
Rules 9300.0170)

ORDER
APPROVING
COMPREHENSIVE
WATER PLAN

Whereas, the Winona County Board of Commissioners adopted a Comprehensive Local Water Plan (Plan) on June 19, 1990 under authority of Minnesota Statutes (M.S.) 1990, Section 103B.301, which was approved by the Minnesota Board of Water and Soil Resources (Board) on March 28, 1990, pursuant to M.S. 1990, Section 103B.315, Subd. 5, and

Whereas, the Winona County Board of Commissioners requested and the Board of Water and Soil Resources approved an extension of the Winona County Plan until December 31, 2002 on October 25, 2000, and

Whereas, the Winona County Board of Commissioners submitted a Comprehensive Local Water Plan Update (Plan Update) to the Board July 25, 2003, pursuant to M.S. 1990, Section 103B.315, Subd. 5, and

Whereas, the Board has completed its review of the Plan Update.

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions, and Order:

FINDINGS OF FACT

1. M.S. 1990, Section 103B.311, Subd. 4, requires adopted Comprehensive Local Water Plans to be updated on a recurring basis.
2. On October 10, 2000, the Board received from Winona County a resolution requesting an extension of their existing Comprehensive Local Water Plan.
3. On October 25, 2000, the Board approved the extension of the existing Winona County Comprehensive Local Water Plan until December 31, 2002. (The Board has authorization to grant extensions pursuant to Minn. Session Law 1995, Chapter 184 Section 24.)
4. On September 25, 2001, Winona County passed a resolution to develop a Comprehensive Local Water Plan Update to meet the plan update requirements.
5. Winona County held five open house public information meetings during February 26 through March 7, 2002, for purposes of gaining public input into the Plan Update.

6. On December 31, 2002, Winona County completed a draft Plan Update and submitted it to affected local units of government for preliminary review and comment pursuant to M.S. 1990, Section 103B.315, Subd. 1.
7. On January 2, 2003, Winona County submitted a draft Plan Update to the Board, the Minnesota Departments of Agriculture, Health, and Natural Resources, the Pollution Control Agency, the Minnesota Geological Survey, and the Minnesota Environmental Quality Board for preliminary review and comment pursuant to M.S. 1990, Section 103B.315, Subd. 5.
8. On April 22, 2003, Winona County held a public hearing on the Plan Update pursuant to M.S. 1990, Section 103B.315, Subd. 4, for the purpose of obtaining public input into the Plan Update.
9. Winona County submitted its Plan Update along with all written comments received on the Plan Update and a record of the public hearing to the Board for final State review pursuant to M.S. 1990, Section 103B.315, Subd. 5.
10. On July 25, 2003, the Board distributed notification of the official 90-day state review and a copy of the Winona County Plan Update to the Minnesota Department of Agriculture, Minnesota Department of Health, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Environmental Quality Board, and Minnesota Geological Survey for their review and comment pursuant to Minnesota Rules, Chapter 9300.0170. The notification stated that each agency had 45 days from receipt of the notification to submit written comments to the Board.
11. On August 4, 2003, brief information regarding the Winona County Plan Update was provided to the Board in their August Board Meeting Agenda Packet.
12. **Individual Comments:** No individual written comments were received during the draft or final review process.
13. **County Response to Individual Comments:** Not applicable.
14. **Local Government Unit (LGU) Comments:** No official written comments were received during the draft or final review process.
15. **County Response to LGU Comments:** Not applicable.
16. **Minnesota Department of Agriculture (MDA) Review:** Preliminary comments were received on February 25, 2003. A MDA staff attended nearly all the committee meetings, provided resource assistance, and was actively involved in the Plan Update development. The draft plan was routed to staff for review and comment. Comments received included: 1) MDA county assistance and feedlot related resources available; 2) suggested that the Ag BMP loan program accomplishments be noted and incorporated in action items; 3) suggested funds should be secured to help in closure, certification, and modification of uncertified manure basins; 4) suggested developing a relationship with MDA regarding pesticide management related activities and provided information on MDA assistance available to the County; 5) recommended that managed grazing in targeted areas, alternative grains for livestock feed and bedding, increased promotion of strip-till and ridge-till residue management systems, nutrient credits for manure applications, and education on deep litter livestock housing facilities be incorporated into the Plan Update; 6) be noted that Winona participates in the MN Ag Land Preservation Program; and 7) MPA provide resource materials to the County.

BWSR received an e-mail from MDA on September 5, 2003 stating they have reviewed the Plan Update, think it is quite good, and had no additional comments.

17. **Minnesota Department of Health (MDH) Review:** No official preliminary comments were received. MDH water plan liaison attended some of the committee meetings. Final comments were received on August 12, 2003. MDH recommends approval and stated the Plan Update presents a great opportunity to further public health protection through its proposed actions to protect water and related land resources.
18. **Minnesota Department of Natural Resources (DNR) Review:** No official preliminary comments were received. The draft Plan Update was routed to other DNR staff for comments. The DNR water plan county representative attended nearly all the committee meetings, incorporated any internal comments, and was an active member of the Plan Update development. Final comments were received September 17, 2002, and found it to be consistent with the State law. DNR has appreciated the opportunity to provide a liaison to the Winona County Water Management Advisory Committee and the Committee's willingness to incorporate DNR's recommendations and comments throughout the planning process.
19. **Minnesota Pollution Control Agency (MPCA) Review:** Preliminary comments were received on February 18, 2002. Several staff of MPCA provided some review. Plan Update presents a very good summary of applicable goals from a variety of national, state, and local laws and programs. Suggested linking the strategies and actions of the BALMM Scoping Document, adding unsewered communities to the map to show need, and including an assessment on DM&E rail expansion and larger terminal for potential spills. MPCA liked the HTML format of water plan, supported the goals and objectives for the feedlot program, and commended the County on the priority placed on the feedlot program. BWSR received final comments via e-mail on September 16, 2003, stating that MPCA recommends the approval of the Plan Update.
20. **Minnesota Environmental Quality Board (EQB) / State Planning Agency Review:** EQB did not provide any written preliminary review comments. No final written comments were provided.
21. **Minnesota Geological Survey (MGS) Review:** MGS did not provide any written preliminary comments. No final written comments were provided.
22. **Minnesota Board of Water and Soil Resources (BWSR):** Preliminary comments were provided to the County on March 3, 2003. The comments commended the County on incorporating the Comprehensive Land Use Plan goals into the Plan Update, incorporating national and state regulations and basin water resources goals into local goals, and developing methods to monitor and track progress the County makes toward these local goals.

Suggestions were made on Plan Update organization and expanding Executive Summary to include additional highlights and summary of issues, goals, and priorities. Identified three areas where data assessments and need were noted and suggested inclusion as actions items if it was a priority for the County. Suggested an implementation matrix to help depict the priorities of the County and the timeline of action items. Suggested linking the assessments to the Objectives section to help the reader understand the connection of issues identified during the assessments and the priorities of the County. Suggested introducing the four topic areas that are objectives (landscape/watershed management, specific groundwater protection, pollution prevention, and storage and transport of pollution materials) early in the Implementation Plan section and in the Executive Summary.

Final comments were incorporated into the Board Conservationist's Findings and presented to the Board Water Plan Review Committee. The County's commitment to completing the Plan Update and submitting the final draft during the uncertainty of the water plan program due to the state budget deficits and State unallotments is admirable. The Plan Update clearly states the resource issues, priorities, and implementation plans of the County for the next seven years. It addresses all the required additional elements for a third generation plan as outlined in the guidelines and more. In addition, the Winona SWCD has been actively engaged in the Plan Update and has adopted it as their Comprehensive Plan. Winona County and partners are commended for their comprehensive watershed approach to water resource management and their leadership in addressing priority issues. Board Conservationist Mary Kells recommends the approval of this Plan Update and looks forward to working with the County partners as they continue to address water resource management and implement this Plan.

23. **County Response to State Agency Comments:** On June 30, 2003, Winona County made written responses to state agencies regarding the preliminary comments. In its final Plan Update submitted to the Board on July 25, 2003, Winona County incorporated many of the changes, additions, and recommendations to the Plan Update as provided in the agencies' comments.
24. **BWSR Southern Water Plan Review Committee Meeting:** On September 24, 2003, the Board's Southern Water Plan Review Committee met in St. Paul, Minnesota with Board staff and representatives from Winona County to review and discuss the Plan Update. Those in attendance were committee members Char Kahler, Dan Wilson-MDH, Victor Ormsby and Jerome Deal. Others present were Barbara Weisman-MDA, Jeff Nielsen-BWSR, Mary Kells-BWSR, Marcia Ward-Winona Co. Commissioner, Pat Bailey-Winona County Water Planner and Jim Stewart-Winona SWCD. The Water Plan Review Committee met to determine whether all relevant law and rule requirements had been met; to discuss past accomplishments, to discuss resource issues and needs, to review the proposed Plan Update, and to hear comments from Winona County on the planning process.
25. On September 24, 2003, the Board's Southern Water Plan Review Committee voted unanimously to recommend that the Board approve the Winona County 2003-2010 eight-year Comprehensive Local Water Plan Update, with the Goals, Objectives, and Action Steps (Implementation section) covering an eight year period, 2003-2010.

CONCLUSIONS

1. All relevant requirements of law and rule have been fulfilled. The Board has proper jurisdiction in the matter of approving a Comprehensive Water Plan Update of Winona County pursuant to Minnesota Statutes 1990, 103B.315, Subd. 5, and Minnesota Rules 9300.0170, Subp. 4.
2. The Winona County Plan Update attached to this Order states water and water-related problems within the County; possible solutions; general goals, objectives, and actions of the County; and an implementation program. The attached Plan Update is in conformance with the requirements of Minnesota Statutes 1990, 103B.301 and Minnesota Rules Chapter 9300.

ORDER

The Board hereby approves the attached Plan Update as the Comprehensive Local Water Plan of Winona County. Dated at St. Paul, Minnesota, this 22nd day of October, 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: _____
Jerome Deal, Chair

2003 Board Order – Winona.doc

Minnesota Board Of Water And Soil Resources

One West Water Street, Suite 200
St. Paul, Minnesota 55107

BWSR File No. 03-10

In Re: WCA Appeal of an Exemption
Decision, Independence, Hennepin County.

ORDER

This is an appeal of a denial of an Application for Certificate of Exemption submitted by Chris and Michelle Stephan ("Stephans") to the Pioneer - Sarah Creek Watershed Management Commission ("Commission"). The Stephans commenced construction of a horse barn and other facilities in 2001. During the construction, 0.205 acres of wetland were filled. Subsequently, the Stephans applied to the Commission, as the local governmental unit ("LGU") under the Wetland Conservation Act ("WCA"), for a Certificate of Exemption pursuant to Minn. R. 8420.0122, subp. 1(D)(1). In October 2001, the Commission denied the Stephans' Application. The Stephans appealed to the Board of Water and Soil Resources ("BWSR"). In December 2001, the Minnesota Department of Natural Resources ("DNR") served the Stephans with a WCA Replacement/Restoration Order.

While the Stephans' appeal to BWSR was pending, the Stephans submitted a wetland replacement plan application to the Commission. In February, 2002, the Commission approved the Stephan's replacement plan application. In August 2002, the Stephans withdrew their appeal to BWSR. On April 2, 2003, the Stephans submitted a new Application for Certificate of Exemption to the Commission. The Commission denied the Application at its meeting on April 24, 2003. The Stephans appealed, and BWSR accepted the appeal on June 11, 2003.

On September 24, 2003, the Dispute Resolution Committee ("DRC") of BWSR heard oral arguments. Michael W. Plambeck, Christensen & Laue, P.A., Suite 400, 5101 Vernon Avenue South, Minneapolis, Minnesota 55436 appeared on behalf of the Stephans. Matthew J.

Foli, Campbell Knutson, 317 Eagandale Office Center, 1380 Corporate Center Curve, Eagan, Minnesota 55121 appeared on behalf of the Commission.

The attorneys for the parties agreed that the record before the Commission consisted of Items 1-18, as identified in an LGU Record provided by the Commission.

Following oral arguments, the DRC by a 3-2 vote, adopted a resolution recommending that the decision of the Commission be affirmed.

At its meeting on October 22, 2003, BWSR adopted the recommendation of the DRC and authorized the Chair of BWSR to issue this Order.

Based upon the entire record of this proceeding, BWSR makes the following:

ORDER

1. The April 24, 2003 decision of the Pioneer - Sarah Creek Watershed Management Commission to deny the Application for Certificate of Exemption for Chris and Michelle Stephan is affirmed.

2. The attached Memorandum is incorporated by reference and made a part of this Order.

Dated: October ____, 2003

Board of Water and Soil Resources

Its Chair

MEMORANDUM

Pursuant to Minn. R. 8420.0250, subp. 3 (2002 supp.), our standard of review is as follows:

The board will affirm the local government unit's decision if the local government unit's findings of fact are not clearly erroneous; if the local government unit correctly applied the law to the facts, including this chapter; and if the local government unit made no procedural errors prejudicial to a party. Otherwise, the board will reverse the decision, amend it, or remand it with instructions for further proceedings.

We find that the Commission's findings of fact were not clearly erroneous, that the Commission correctly applied the law to the facts, and that there were no procedural errors in the Commission's proceedings.

In seeking a Certificate of Exemption from the Commission, the Stephans contended that their horse barn met the definition of "agricultural land" as set forth in Minn. R. 8420.0110, subp. 4 (2002 supp.), which states:

"Agricultural land," means land used for horticultural, row, close grown, pasture, and hayland crops; growing nursery stocks; animal feedlots; farmyards; associated building sites; and public and private drainage systems and field roads located on any of these lands. "Agricultural land" must be used principally for the cultivation or production of plants or farm animals and includes former agricultural land that is presently enrolled in conservation easements.

The Commission found that the principal use of the Stephans' horse barn was as a training and boarding facility. The Commission determined that this use was not principally for the cultivation or production of plants or farm animals and, therefore, did not meet the definition of agricultural land under Minn. R. 8420.0110, subp. 4. While reasonable minds may draw

differing conclusions as to this question, the determination of the Commission cannot be said to be clearly erroneous.¹ Consequently, the decision of the Commission is affirmed.

AG: #928760-v1

¹ Court decisions applying the “clearly erroneous” standard of review indicate that the decision-maker below is entitled to great deference: “While we might have resolved the issue differently than the trial court, we are not a court of original jurisdiction and do not try appeals de novo. We are not at liberty to substitute our judgment on factual situations for that of the trial judge, nor are we able to say on the record that the factual findings of the trial judge are clearly erroneous.” *Lindsay v. McDonnell Douglas Aircraft Corp.*, 485 F.2d 1288 (8th Cir. 1973).

Executive Summary

City of Cloquet Wetland Management Plan

On September 30, 2003, the BWSR Wetland Management Subcommittee recommended approval of the City of Cloquet Wetland Management Plan to the BWSR Board. The BWSR Staff also recommends approval of the City of Cloquet Wetland Plan. The City of Cloquet Comprehensive Wetland Management Plan has been in development since July 2001 with the following specific objectives: 1) recognition of outstanding waterbodies and wetland habitats, 2) recognition of the large amount of wetlands in the City, 3) recognition of future City land uses plans, 4) desire to eliminate duplicative regulatory burdens and bridge gaps in the state and federal wetland regulations, 5) desire to develop a more efficient and flexible program administration, and 6) need to protect important natural areas yet have the flexibility to develop.

Summary of Plan Review Process and Variation from "Traditional" WCA

In an email dated July 23, 2002, the BWSR included several staff comments and questions and concluded that the Plan needs to become more clear and easier to understand if the city is not effectively implement. In a follow-up letter dated March 28, 2003, The BWSR stated that staff would likely recommend approval of the Plan if the following 4 issues were addressed:

- 1) The Plan contains an Executive Summary describing the benefits of the Plan.
- 2) That the City meet with the Corps of Engineers staff and DNR to review the current version of the Plan and get documentation from them in writing that the Plan meets their regulatory requirements.
- 3) That an ordinance is developed that clearly shows how the Plan is to be implemented.
- 4) The Plan contains a contingency that upon development of the Fond du Lac Reservation Wetland Management Plan, the city would ensure a common wetland protection standard.

The City of Cloquet Final Wetland Management Plan dated August 25, 2003, included changes in the Plan related to issues defined in the March 28, 2003 BWSR review letter.

Variation from "traditional" WCA includes replacement standards that are either stricter than WCA, the same or somewhat more flexible than WCA depending on the wetland type, location and impact acreage. The Plan places the highest classifications for protection on those wetlands in or around trout streams, fish lakes, seasonally flooded forests, and primary wellhead protection areas. The Plan states that wetlands receiving the most regulatory flexibility are types 2 and 6 in municipal land use settings. There are 8% of type 2 and 12% of type 6 within this land use designation. Replacement options for Type 2 and 6 wetlands in the city area will continue to require some mitigation and no exemption have been expanded under this Plan. The City will request that the wetlands be mitigated by applicants within the City boundary. Mitigation impacts under this Plan will meet no-net loss of wetland public values. The ACOE regulations and rules will be applied in many cases regardless of the limited flexibility protection provisions.

Background of the City

The City of Cloquet is located in North central Carlton County. The City is 36 sections in size with some portions (45%) of the City within the Fond du Lac Reservation. Natural resources of special interest within the City are the St. Louis River, seven trout streams, numerous seasonally flooded forests and wetlands in the Wellhead Protection Areas of the city and Fond du Lac Reservation. The 913 wetlands within the City compose over 6600 acres or about 30% of the land area in the City. There is an estimate 80% remaining of presettlement wetlands remaining in the City.

Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, Minnesota 55107

In the Matter of the review of the Wetland
Management Plan for the **City of Cloquet**
pursuant to Minnesota Statutes
Section 103G.2242 Subd. 1 (c.)

ORDER 03-____
APPROVING
WETLAND
MANAGEMENT PLAN

Whereas, the City of Cloquet submitted a Wetland Management Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to Minnesota Statutes Section 103G.2242 Subd. 1 (c.), and;

Whereas, the Board has completed its review of the Plan;

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions and Order:

FINDINGS OF FACT

1. **Requirement to Plan.** Minnesota Statutes Section 103G.2242 Subd. 1 (c.) allows the Board to approve a comprehensive wetland protection plan developed by a local government unit provided that the Plan is incorporated into sections 103A.201, Subd. 2 and 103G.222, is adopted as part of an approved local water plan under section 103B.231 and is adopted as part of the local government's official controls.

The intent of the Plan is to provide the means for the City to protect and manage its wetlands by utilizing the flexibility within the Wetland Conservation Act. The Plan provides guidelines for wetland protection and management, assistance with the Wetland Conservation Act, and acts as a reference guide to developers to use when working near wetlands. The development of protection and management strategies for wetlands within the City stems from the function and values assessment completed as part of the Plan. These management strategies allow the City to protect and manage wetland resources by implementing flexibility in the Wetland Conservation Act.

2. **Background of the City.** The City of Cloquet is located in North central Carlton County. The City is 36 sections in size with some portions (45%) of the City within the Fond du Lac Reservation. Natural resources of special interest within the City are the St. Louis River, seven trout streams, numerous seasonally flooded forests and wetlands in the

Wellhead Protection Areas of the city and Fond du Lac Reservation. The 913 wetlands within the City compose over 6600 acres or about 30% of the land area in the City. The majority of City wetlands (87%) are types 6, 7, 8. There is an estimate 80% remaining of presettlement wetlands remaining in the City.

3. **Local Review.** The Wetland Management Plan (Plan) was developed with assistance from the local/state agency technical panel and a local advisory committee. The Plan has and attached wetland management ordinance will be adopted by ordinance and is to be used in conjunction with the City Comprehensive Land Use Plan.
4. **Department of Agriculture Review.** The MDA did not provide comments on the City of Cloquet Wetland Management Plan.
5. **Department of Health Review.** The MDH did not provide comments on the City of Cloquet Wetland Management Plan.
6. **Department of Natural Resources Review.** In a letter dated April 2, 2003, the DNR stated that since the Plan clearly applies to wetlands and the administration of the Wetland Conservation Act, it appears that the Plan does comply with the DNR regulatory requirements. The DNR also stated that the actions of individual require the compliance with all other federal, state, or local government permits, licenses and approvals. Lastly, the Department stated that it looks forward to working with and assisting the City of Cloquet on other water resources management projects including evaluating the existing inventory list of DNR Public Waters Wetlands and developing a list of basins to be reclassified as either wetlands to be protected under the WCA or reclassified to Public Waters and maintained on the DNR Public Waters Inventory.
7. **Pollution Control Agency Review.** The MPCA did not provide comments on the City of Cloquet Wetland Management Plan.
8. **Army Corps of Engineers.** In a memorandum dated April 14, 2003, the Corps of Engineers stated two main comments: 1) The Corp agrees that the values of the assessment are consistent with community values but continues to have concerns on the combining /blending of MNRAM wetland function scores to determine an overall classification for a wetland. 2) The Corp also has concerns about regulatory flexibility provided for by type 2 and 6 in the City Municipal Zoning Area. The Corp has recommended that the Plan have no flexibility for those wetlands with high plant community functional scores regardless of type. These issues were not address in the current Plan with the exception of the type 2 sedge meadow wetlands, which now are not allowed any regulatory flexibility.
9. **Board Review.** In an email dated July 23, 2002, the BWSR included the following staff comments and questions: 1) The Plan is still cumbersome especially in the way you need

to calculate public value improvement. 2) Explain how much wetland area are in the flexible protection category land use areas. 3) How will functional value score relate to flexibility or protection? 4) It seems that if a type 2,6, or 7 wetland is in a municipal land use class, it gets flexible protection regardless of score? 5) Will the City provide a conservation easement or a restrictive covenant to protect buffers? 6) You need to ensure the Plan covers only areas that are under the cities jurisdiction and achieves no net loss within the City for which municipal controls are available, which does not include the Fond du Lac Tribal program.

Overall, BWSR summarized that it wants a Plan for the City that is clear to understand and implement yet effective in conserving and managing wetlands.

In a follow-up letter dated March 28, 2003, The BWSR stated that the above mentions specific concerns were addressed to a point where BWSR staff would likely recommend approval of the Plan if the following 4 issues were addressed:

- 1) The Plan contains an Executive Summary describing the benefits of the Plan.
- 2) That the City meet with the Corps of Engineers staff and DNR to review the current version of the Plan and get documentation from them in writing that the Plan meets their regulatory requirements.
- 3) That an ordinance is developed that clearly shows how the Plan is to be implemented.
- 4) The Plan contains a contingency that upon development of the Fond du Lac Reservation Wetland Management Plan, the city would ensure a common wetland protection standard.

The City of Cloquet Final Wetland Management Plan dated August 25, 2003, included changes in the Plan related to issues defined in the March 28, 2003 BWSR review letter. The Plan does fundamentally comply with Minnesota Rules 8420 and the fundamental wetland management and planning expectations articulated by BWSR.

10. **Highlights of the Plan.** The critical elements included in the Plan are:

- a. Definition of specific projects/actions, responsible parties and set time line,
- b. Identification of wetland management classifications determined through citizen involvement and agency participation,
- c. Concise implementation section with identified management standards and activities,
- d. Communication among the various responsible departments within the City of Cloquet and partnership with other local technical and regulatory partners and programs.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Wetland Management Plan for the City of Cloquet pursuant to Minnesota Statutes Section 103G.2242 Subd. 1 (c.).
3. The City of Cloquet Final Wetland Management Plan attached to this Order provides a function and value assessment framework for all wetlands within the City of Cloquet's jurisdictional boundary and defines all wetland-related problems within the City of Cloquet boundaries, possible solutions thereto, and an implementation program.
4. The attached Plan is in conformance with the requirements of Minnesota Statutes Sections 103G.221 to 103G.2373.

ORDER

The Board hereby approves the attached Comprehensive Wetland Protection and Management Plan and Local Wetland Management Ordinance dated August 25, 2003, for the City of Cloquet contingent on City Council approval of Plan and ordinance.

Dated at Saint Paul, Minnesota this 22nd day of October 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Jerome Deal, Chair

LAKE OF THE WOODS COUNTY WETLAND PLAN

EXECUTIVE SUMMARY

In 2001, Lake of the Woods County decided to develop a Comprehensive Wetland Protection and Management Plan and ordinance that would fit the county's unique wetland resources. The project was funded with a BWSR Water Management Challenge Grant and matching local funds. The planning effort was a multi-agency effort that was facilitated by Headwaters Regional Development Commission. An 11-member policy committee of elected officials and citizens in addition to an eleven member technical committee representing 9 local, state, and federal agencies oversaw the plan development.

Lake of the Woods County is located in north-central Minnesota along the Canadian border and consists of approximately 681,500 acres of wetland, or 76% of the total land area of the county. There is intense development pressure along the major surface waters in the county, Lake of the Woods and the Rainy River. Much of this development has the potential to impact wetlands.

The plan utilizes the Minnesota Routine Assessment Method (MnRAM) as a basis for the functional assessment of wetlands in the county. In addition, the planning effort used the concept of "locally defined wetland values" where the policy committee developed a system to account for local values being placed on the various wetland functions. The results of this effort placed the highest value on the wetland functions of shoreline protection, water quality, fisheries and wildlife habitat. Slightly lower value was placed on the functions of commercial and recreational uses, groundwater interaction, and flood attenuation.

The plan divides wetlands into 3 categories based on the functional score:

- **Category 1** – all wetlands with a score of >15 (the highest functioning and highest valued wetlands)
- **Category 2** – wetlands scoring between 11 and 15
- **Category 3** – wetlands scoring <11 (the lower scoring wetlands)

Replacement Policy: Replacement ratios are varied under the plan to serve as a disincentive to impact highly valued and functioning wetlands, and provide some flexibility for lower valued and functioning wetlands.

Sequencing: The plan allows less flexibility for Category 1 wetlands and increasing flexibility for the lower functioning wetlands.

Exemptions: For the medium and lower functioning wetlands (Category 2 & 3), the agricultural exemptions were extended to non-agricultural impacts for types 1, 2 and 6 wetlands, except for bottomland hardwoods and wetlands in the shoreland protection zone.

Review of Wetland Plan and Ordinance – In accordance with the no net loss requirement of the Wetland Conservation Act, a review of the plan will be conducted within 5 years of adoption of the plan and at least once every 5 years thereafter. An inter-agency technical team consisting of, at a minimum, Lake of the Woods County, BWSR, DNR, and Lake of the Woods SWCD will conduct the review.

Memorandum

DATE: October 10, 2003

TO: BWSR Wetland Committee

FROM: Dale Krystosek, BWSR Wetland Specialist

SUBJECT: Lake of the Woods County Wetland Management Plan Review

BACKGROUND

Lake of the Woods County is located in north-central Minnesota along the Canadian border. Wetland resources within the county total approximately 181,500 acres or 76% of the total land area of the county. The major wetland types in the county are Type 6 (shrub swamps) totaling 51,539 acres; Type 7 (wooded swamps) at 50,044 acres; and Type 8 (bogs) totaling 62,821 acres. The county has 57,500 acres of upland. There is intense development pressure along the major surface waters in the county including Lake of the Woods and the Rainy River. Much of this development has the potential to impact wetlands. Lake of the Woods is considered a highly valued walleye fishery.

GOAL OF THE PLAN

In 2001, Lake of the Woods County decided to develop a Comprehensive Wetland Protection and Management Plan and ordinance that would better fit the county's unique and extensive wetland resources. The goal was to provide some flexibility beyond what the rules of the Wetland Conservation Act provide while protecting the highest functioning wetlands and achieving no net loss of wetlands within the county. The project was funded with a BWSR Water Management Challenge Grant and matching local funds. The planning effort was a multi-agency effort that was facilitated by Headwaters Regional Development Commission. An 11-member policy committee of elected officials and citizens plus an eleven member technical committee representing 9 local, state, and federal agencies oversaw the plan development.

The Plan is divided into the following sections:

1. Wetland Inventory
2. Developing the Decision Framework
3. Development of Wetland Policies
4. Lake of the Woods Wetland Conservation Ordinance

HOW THE PLAN VARIES FROM WCA RULE 8420

Lake of the Woods County is a greater than 80% presettlement wetland county so a one to one wetland replacement ratio is typically required under the WCA rule. The Lake of the Woods Plan allows for varying the replacement ratio from a maximum of 4:1 down to ¼ :1 based on wetland functions and values.

The plan utilizes the Minnesota Routine Assessment Method (MnRAM) as a basis for the functional assessment of wetlands in the county. In addition, the planning effort used the concept of "*locally defined wetland values*" where the policy committee developed a system to account for local values being placed on the various wetland functions. The results of this effort placed the highest local value on the wetland functions of shoreline protection, water quality, fisheries and wildlife habitat. Slightly lower value was placed on the wetland functions of commercial and recreational uses, groundwater interaction, and flood attenuation. The plan utilizes a model whereby a wetland is scored based on a functional analysis and then multiplied by the wetland value weight.

The plan divides wetlands into 3 categories based on the functional score:

- **Category 1** – all wetlands with a score of >15 (the highest functioning and highest valued wetlands)
- **Category 2** - wetlands scoring between 11 and 15 (wetlands with medium function and value)
- **Category 3** – wetlands scoring <11 (the lower scoring wetlands with respect to calculated function and value)

Replacement Policy: Replacement ratios are varied under the plan to serve as a disincentive to impact highly valued and functioning wetlands, and provide some flexibility for lower valued and functioning wetlands. For example, a high scoring category 1 wetland could require a replacement up to a 4:1 ratio. Lower scoring wetlands may require as low as a ¼:1 replacement ratio. BWSR staff believes that the higher replacement ratios are likely to be used more frequently than the less than 1:1 ratios. This would ensure that no net loss of wetlands would be maintained within the wetland plan area. In addition, the plan will be reviewed within 5 years of adoption by an inter agency technical team to ensure that no net loss of wetlands is maintained within Lake of the Woods County.

Sequencing: The plan requires written sequencing analysis for all of the high function/valued Category 1 wetlands, use of the BWSR sequencing Findings of Fact form for Category 2 wetlands and onsite sequencing for the lower functioning Category 3 wetlands. This approach meets the sequencing standards in WCA.

Exemptions: For the medium and lower functioning wetlands (Category 2 & 3), the agricultural exemption was extended to non-agricultural impacts for types 1, 2 and 6 wetlands, except for bottomland hardwoods and wetlands in the shoreland protection zone.

This is allowed under WCA Rule 8420.0650 Subpart 2 E.

CITIZEN PARTICIPATION

The Lake of the Woods wetland planning effort had a high level of participation from elected officials and citizens. Attendance at planning meetings was generally very good and citizens and elected officials were active participants in plan development. The following individuals participated in the policy committee:

Pat Lavalla (County Commissioner)	Todd Beckl (SWCD Supervisor)
George Taylor (City of Baudette)	Ed Arneson (County Commissioner)
Gib Erickson (logger)	Jenny Moorman (Lake of the Woods Schools)
Buck Nordlof (Ducks Unlimited)	Rex Block (contractor)
Scott Pieper (farmer)	Russ Hanson (SWCD Supervisor)
Jeff Hrubes (BWSR staff)	Les Lemm (SWCD staff)
Mike Schulz (Lake of the Woods Captain's Association)	

AGENCY PARTICIPATION

DNR

The Minnesota Department of Natural Resources was well represented and an active participant in the plan development. Dan Thul, Division of Waters, assisted with evaluation of groundwater functions. Mike Larson, Division of Fisheries worked on the fisheries function. Jeff Dettrich, DNR Wildlife manager assisted with wetland wildlife functions and Dave Thomas, Division of Forestry, helped evaluate commercial and recreational functions of wetlands.

MINNESOTA POLLUTION CONTROL AGENCY

The MPCA was an active participant in the planning process. Nolan Baratono, MPCA Basin Planner assisted with evaluation of the water quality function and participated in other aspects of the plan development.

ARMY CORPS OF ENGINEERS

The Corps participated in the planning effort in several ways. Corps staff Jeff Koschak attended the first meeting then declined participation due to workload issues. Corps/BWSR staff John Overland reviewed the plan and met with local and other BWSR staff to discuss how the plan met the pending General Permit 2. Several modifications were made to the plan by local staff to more closely meet Section 404 of the Clean Water Act regulations. In the attached memo from John Overland, he finds that the Lake of the Woods Plan, as proposed, meets the no net loss goal.

BWSR STAFF RECOMMENDATION

The BWSR Staff recommends approval of the Lake of the Woods County Wetland Plan contingent on County Board approval of the plan and attached Lake of the Woods County Wetland Conservation Ordinance of 2003.

The plan complies with Minnesota Rules 8420.0650 and the flexibility allowed for counties with greater than 80% presettlement wetlands. The plan is expected to meet the no net loss provisions of WCA. Provisions within the plan provide for a periodic review of the wetland plan and ordinance. In accordance with the no net loss requirement of the Wetland Conservation Act, a review of the plan will be conducted within 5 years of adoption of the plan and at least once every 5 years thereafter. An inter-agency technical team consisting of, at a minimum, Lake of the Woods County, BWSR, DNR, and Lake of the Woods SWCD will conduct the review.

The wetland values determined by the policy committee were in line with technical assessments made by the technical advisory committee. The Lake of the Woods staff was extremely cooperative in addressing issues raised by BWSR staff during the planning effort and made modifications to the plan to ensure that the goal of no net loss of wetland functions and values within the county was achieved.

cc: John Jaschke, BWSR (file copy)
Steve Eggers, Army Corps of Engineers
Dan Thul, MDNR
Doug Norris, DNR/BWSR
Nolan Baratono, MPCA
Steve Sindelar, Lake of the Woods Environmental Services
Cade Stephenson, Lake of the Woods SWCD

Enclosed:

Executive Summary
Memo from John Overland

Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, Minnesota 55107

In the Matter of the review of the Wetland
Management Plan for Lake of the Woods
County pursuant to Minnesota Statutes
Section 103G.2242 Subd. 1 (c.)

ORDER 03-____
APPROVING
WETLAND
MANAGEMENT PLAN

Whereas, Lake of the Woods County submitted a Wetland Management Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to Minnesota Statutes Section 103G.2242 Subd. 1 (c.), and;

Whereas, the Board has completed its review of the Plan;

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions and Order:

FINDINGS OF FACT

1. **Requirement to Plan.** Minnesota Statutes Section 103G.2242 Subd. 1 (c.) allows the Board to approve a comprehensive wetland protection plan developed by a local government unit provided that the Plan is incorporated into sections 103A.201, Subd. 2 and 103G.222, is adopted as part of an approved local water plan under section 103B.231 and is adopted as part of the local government's official controls.

The intent of the Plan is to provide the means for the County to protect and manage its wetlands by utilizing the flexibility within the Wetland Conservation Act. The Plan provides guidelines for wetland protection and management, assistance with the Wetland Conservation Act, and acts as a reference guide to developers to use when working near wetlands. The development of protection and management strategies for wetlands within the County stems from the function and values assessment completed as part of the Plan. These management strategies allow the County to protect and manage wetland resources by implementing flexibility in the Wetland Conservation Act.

2. **Background of the County.** Lake of the Woods County is located in north-central Minnesota along the Canadian border. Wetland resources within the county total approximately 181,500 acres or 76% of the total land area of the county. The major wetland types in the county are Type 6 (shrub swamps) totaling 51,539 acres; Type 7 (wooded swamps) at 50,044 acres; and Type 8 (bogs) totaling 62,821 acres. The county

has 57,500 acres of upland. There is intense development pressure along the major surface waters in the county including Lake of the Woods and the Rainy River. Much of this development has the potential to impact wetlands. Lake of the Woods is considered a highly valued walleye fishery.

3. **Local Review.** The Wetland Management Plan (Plan) was developed with assistance from the local/state agency technical panel and a local advisory committee. The Plan has and attached wetland management ordinance will be adopted by ordinance and is to be used in conjunction with other County land use ordinances.
4. **Department of Agriculture Review.** The MDA did not provide comments on the Lake of the Woods County Wetland Management Plan.
5. **Department of Health Review.** The MDH did not provide comments on the Lake of the Woods Wetland Management Plan.
6. **Department of Natural Resources Involvement.** The Minnesota Department of Natural Resources was well represented and an active participant in the plan development. Dan Thul, Division of Waters, assisted with evaluation of groundwater functions. Mike Larson, Division of Fisheries worked on the fisheries function. Jeff Dettrich, DNR Wildlife manager assisted with wetland wildlife functions and Dave Thomas, Division of Forestry, helped evaluate commercial and recreational functions of wetlands.
7. **Pollution Control Agency Involvement.** The MPCA was an active participant in the planning process. Nolan Baratono, MPCA Basin Planner assisted with evaluation of the water quality function and participated in other aspects of the plan development.
8. **Army Corps of Engineers Involvement.** The Corps participated in the planning effort in several ways. Corps staff Jeff Koschak attended the first meeting then declined participation due to workload issues. Corps/BWSR staff John Overland reviewed the plan and met with local and other BWSR staff to discuss how the plan met the pending General Permit 2. Several modifications were made to the plan by local staff to more closely meet Section 404 of the Clean Water Act regulations. In the attached memo from John Overland, he finds that the Lake of the Woods Plan, as proposed, meets the no net loss goal.
9. **Board Review and Involvement.** The BWSR Staff recommends approval of the Lake of the Woods County Wetland Plan contingent on County Board approval of the plan and attached Lake of the Woods County Wetland Conservation Ordinance of 2003.

The plan complies with Minnesota Rules 8420.0650 and the flexibility allowed for counties with greater than 80% presettlement wetlands. The plan is expected to meet the no net loss provisions of WCA. Provisions within the plan provide for a periodic review

of the wetland plan and ordinance. In accordance with the no net loss requirement of the Wetland Conservation Act, a review of the plan will be conducted within 5 years of adoption of the plan and at least once every 5 years thereafter. An inter-agency technical team consisting of, at a minimum, Lake of the Woods County, BWSR, DNR, and Lake of the Woods SWCD will conduct the review.

The wetland values determined by the policy committee were in line with technical assessments made by the technical advisory committee. The Lake of the Woods staff was extremely cooperative in addressing issues raised by BWSR staff during the planning effort and made modifications to the plan to ensure that the goal of no net loss of wetland functions and values within the county was achieved.

10. **Highlights of the Plan.** The critical elements included in the Plan are:

- a. Definition of specific projects/actions, responsible parties and set time line,
- b. Identification of wetland management classifications determined through citizen involvement and agency participation,
- c. Concise implementation section with identified management standards and activities,
- d. Communication among the various responsible departments within the County and SWCD and partnership with other local technical and regulatory partners and programs.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Wetland Management Plan for the Lake of the Woods County pursuant to Minnesota Statutes Section 103G.2242 Subd. 1 (c.).
3. The Lake of the Woods County Final Wetland Management Plan attached to this Order provides a function and value assessment framework for all wetlands within the Lake of the Woods County jurisdictional boundary and defines all wetland-related problems within the County boundaries, possible solutions thereto, and an implementation program.
4. The attached Plan is in conformance with the requirements of Minnesota Statutes Sections 103G.221 to 103G.2373.

ORDER

The Board hereby approves the attached Comprehensive Wetland Protection and Management Plan and Local Wetland Management Ordinance dated August 25, 2003, for Lake of the Woods County contingent on County Board of Commissions approval of Plan and ordinance.

Dated at Saint Paul, Minnesota this 22nd day of October 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Jerome Deal, Chair

Minnesota Wetland Conservation Act
Guidance Paper 2003-01
October, 2003 (Board Resolution # _____)

Prepared by: Minnesota Board of Water and Soil Resources
Approved by: Minnesota Interagency Wetland Group

SUBJECT: Exceptional Natural Resource Value Projects (8420.0541 Subp. 4)

1. Purpose and applicability.

- a. **Purpose.** The purpose of this guidance paper is to provide Local Government Units (LGUs) with guidelines for use of Minnesota Rule 8420.0541 Subpart 4 **Exceptional natural resource value projects.**
- b. **Applicability.** This guidance applies to LGU's evaluation of wetland replacement plans where an applicant proposes the use of the **exceptional natural resource value projects** method of allocation of wetland credits.

2. General Considerations.

Exceptional natural resource value projects was added to 8420.0541 ACTIONS ELIGIBLE FOR CREDIT in the Wetland Conservation Act (WCA) rule that became permanent on August 5, 2002. Minnesota Rule 8420.0541 Subpart 4 states *"Projects that restore exceptional natural resource values of wetlands may receive either public value or new wetland replacement credit solely or in combination as determined by the local government unit with the concurrence of the technical evaluation panel. The amount and type of credit allowed shall be based on a functional assessment that documents the restoration of these values."*

Local government units and technical evaluation panels are strongly encouraged to use this guidance paper when evaluating all wetland replacement plans that propose use of the exceptional natural resource value projects method of allocating wetland replacement credits. Because the rule does not define *exceptional natural resource value of wetlands*, LGUs and Technical Evaluation Panels (TEPs) are encouraged to use this guidance to limit the use of this part of the rule.

The WCA rules require that wetland replacement should occur as close to the impacted wetland as possible (WCA Rule 8420.0543 Wetland Replacement Siting). The exceptional natural resource value projects option for wetland replacement provides another opportunity to achieve this goal and should be strongly considered by project applicants.

3. "Exceptional" definition. The word *exceptional* in this subpart means that replacement plans that use this method of allocating credits *should be restricted to projects that:*

- a. **Restore values listed under 8420.0548 Special Considerations** including:

**Where can
ENRV be used?**

- i. endangered and threatened species
- ii. rare natural communities,
- iii. special fish and wildlife resources (*especially fish passage and spawning areas, colonial water bird nesting colonies, migratory waterfowl concentration areas, deer wintering areas, and wildlife travel corridors*),
- iv. groundwater sensitivity,
- v. sensitive surface waters, and
- vi. educational or research use.

- b. **Restore wetland function and values of wetlands adjacent to or protecting trout waters designated by the commissioner.** For the purposes of this part, the TEP should make recommendations to the LGU regarding adjacency and whether the proposed wetland restoration activities would protect the trout stream or lake. The LGU and TEP should seek technical recommendations from DNR fisheries staff.
- c. **Restore sites that were formerly calcareous fens.** There are several degraded wetland sites in Minnesota that have been degraded by cultivation or other human activity that are believed to have functioned as a calcareous fen before disturbance. These sites may be eligible for use of the exceptional natural resource value projects if they have potential to be restored to a calcareous fen. The TEP should seek advice from calcareous fen experts from the Department of Natural Resources and U.S. Army Corps of Engineers and should base eligibility and restoration potential on an interagency evaluation of the site.
- d. **Restore white cedar swamps.** Sites that are a degraded white cedar swamp or have been converted from a white cedar swamp to a nonwetland or another wetland type are eligible for this part. Restoration of the site may include restoration of natural hydrology and/or restoration of vegetation. The vegetation management plan must include a plan to control damage by white tailed deer and other wildlife.
- e. **Restore wetlands adjacent to or protecting Outstanding Resource Value Waters (Minnesota Rules 7050)** Wetlands that are adjacent to or serve to protect Outstanding Resource Value Waters are eligible for this part. These waters include, in part, *Lake Superior, Federal or state wild river segments, Voyageurs National Park, DNR designated scientific and natural areas, calcareous fens, and lake trout lakes*. Restoration and associated preservation of these wetlands can serve to provide additional protection to sites that have been designated by the public to have significant natural resource values.
- f. **Restore floodplains and riparian wetlands** of streams designated for restoration or protection through state, regional or local plans.

**Where can
ENRV be used?**

- g. **Restore rare local or regional wetlands as identified in local wetland or water management plans.** Wetlands that are recognized to be rare within areas or regions of the state may be restored and protected with the exceptional natural resource value method of allocating wetland credits if they are identified in a local or regional plan as a high priority for restoration and protection and approved by the TEP.

4. **"Restore" definition.** The word *restore* in this subpart means projects that:

- a. **Restore vegetation of an exceptional wetland that had been previously degraded or converted to a different type by human activity.** Restoration of vegetation shall be limited to reestablishment and maintenance of permanent native, noninvasive vegetation.
- b. **Restore natural hydrology of an exceptional wetland.** Restoration of hydrology can include either putting water back on a site where it had been removed or removing water from a site where some wetland functions had been degraded by impounding of excess water. For example, restoration of the natural hydrology of a white cedar swamp that had been degraded by improper installation of a culvert would be considered restoration of the natural hydrology of an exceptional wetland.

**How can
ENRV be used?**

5. **Determination and allocation of New Wetland Credit (NWC) and Public Value Credit (PVC) under**

"Exceptional Natural Resource Value Projects". For the purposes of this subpart, NWC and PVC may be determined by the following guidelines and examples:

- a. **NWC should only be allowed for actions that restore some wetland functions by restoration of native vegetation or restoration of natural hydrology.** The following are examples of allocation of credit under this part of the rule that are consistent with the goal of no-net loss of wetland functions and values:
 - 1. **Up to 100% NWC based on an evaluation of the replacement site with current version of MNRAM or by use of another BWSR approved wetland evaluation method.** For example, recommend that the percentage of NWC correspond to the percent of functional ratings in MNRAM that are increased by at least one level as a result of the restoration of vegetation or hydrology. For example, if restoration of hydrology or vegetation of the replacement wetland increases 50% of the functional ratings by at least one level (low to medium, medium to high, etc.), recommendation is to allocate 50% NWC for the wetland area restored with approval of the TEP.

**What do you get?
(NWC or PVC)**

2. **Up to 50% NWC for restoration of permanent native noninvasive vegetation** in a wetland area where wetland vegetation had been degraded by human activity *at least ten years prior to the date of the wetland replacement plan or banking plan application*. Examples of activities that may have degraded wetland function include, but is not limited to cropping, grazing, haying, clearing of vegetation.
3. **Up to 10% NWC for removing excess hydrology** from a wetland area where wetland functions had been degraded by flooding due to improper placements of culverts, roads, or other human structures provided that permanent native noninvasive vegetation is established in the restored area.
4. **Up to 100% NWC for restoring a deep-water habitat to a wetland condition.** Areas where wetlands have been converted to deep-water habitat more than 10 years prior to the date of the replacement plan application, may receive up to 100% NWC for restoring the natural wetland hydrology provided that permanent native noninvasive vegetation is established in the restored area and all necessary permits are obtained.
5. **Exceptional wetland preservation - New wetland credit may be granted for preservation of exceptional wetlands,** as defined here, *provided that restoration of native noninvasive vegetation or hydrology occurs on at least 25% of the project area. The amount of NWC allocated is recommended to not exceed 12.5% of the wetland area preserved* through a permanent easement. The restored and preserved wetland areas should have an adequate protective buffer as determined by the TEP. NWC granted under this part **must have concurrence** of the TEP, the LGU and the designated DNR TEP member for public waters projects. LGUs are encouraged to consult the U.S. Army Corps of Engineers for recommendations. Wetlands preserved for NWC credit must be facing some documented threat of development.

b. PVC may be allowed for:

1. **Up to 25% PVC for preservation of wetland areas of exceptional natural resource values protected under a permanent easement.** Wetland areas that are preserved for public value credit must be facing some documented threat of development.
2. **Activities where PVC is allowed under 8420.0541 Actions Eligible for Credit.**

6. **Functional Assessments.** It is recommended that the *current version* of the Minnesota Routine Assessment Methodology for Evaluating Wetland Functions (MNRAM) be used for functional assessments for this subpart. Functional assessments may also be completed with other BWSR approved wetland evaluation methods.
7. **Summary.** This guidance is for use by local government units and technical evaluation panels in evaluating all wetland replacement plans where use of **Minnesota Rule 8420.0541 Subpart 4. Exceptional Natural Resource Value Projects** is proposed for determination and allocation of wetland replacement credits. The rule language limits use of this method of allocation of credits to *“Projects that restore exceptional natural resource values of wetlands...”*, but does not define *“restore”* or *“exceptional”*. This guidance was developed to help clarify and limit the use of the part of the rule to ensure compliance with the overall purpose of the Wetland Conservation Act, which is to *“achieve no net loss in the quantity, quality, and biological diversity of Minnesota’s existing wetlands...”*

**LE SUEUR COUNTY COMPREHENSIVE LOCAL WATER PLAN REQUEST FOR
EXTENSION
(FOR BOARD ACTION)**

Le Sueur County has a Comprehensive Local Water Plan (CLWP), approved by the Minnesota Board of Water and Soil Resources on November 28, 1990 and locally adopted via county resolution on December 11, 1990. The second generation CLWP was approved by the Board of Water and Soil Resources on December 17, 1997 and locally adopted January 13, 1998. The effective date (end date) of this CLWP is December 31, 2003.

The 1995 amendments to the Comprehensive Local Water Management Act, M.S. 103B.301, gives the Board of Water and Soil Resources authority to grant extensions to counties for the purpose of extending the ending date of their water plans. The extensions must be requested in writing and cannot be for more than two years.

At their December 15, 1999, board meeting, the Board of Water and Soil Resources adopted policies that defined the Board's expectations of water plan updates and encouraged counties extend their current water plan if they are involved in multi-planning strategies.

Le Sueur County participates in the Blue Earth River Basin Alliance. Le Sueur County recently was awarded a 2004/2005 comprehensive local water management challenge grant to develop a drainage system inventory and management plan. The county is currently performing Clean Water Partnership and Comprehensive Local Water Management projects that also help manage and protect LeSueur County water resources. The county is experiencing budget shortfalls that have slowed the current revision process; however, the county assures continued effort toward completion of the comprehensive local water plan revision.

Board Conservationist Chris Hughes recommends approval of Le Sueur County's two-year extension request to December 31, 2005.

**RESOLUTION AUTHORIZING EXTENSION OF THE
LE SUEUR COUNTY
COMPREHENSIVE WATER MANAGEMENT PLAN**

WHEREAS, 1995 amendments to Minnesota Statutes, Chapter 103B.301, Comprehensive Local Water Management Act, gave the Minnesota Board of Water and Soil Resources authority to extend the ending date of local water plans for a period not to exceed two years, and

WHEREAS, budget shortfalls for the Water Management Program have slowed the current revision process, and

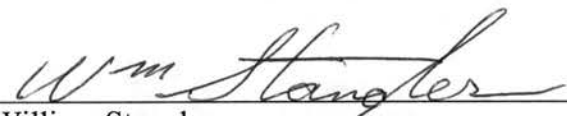
WHEREAS, Le Sueur County assures continued effort towards completion of the Comprehensive Local Water Plan revision, and

WHEREAS, Le Sueur County will not order or commence any project using the authorities under 103B.331 subd 3 and 4 until completion of the Comprehensive Local Water Management Plan revision.

NOW, THEREFORE, BE IT RESOLVED that the Le Sueur County Board of Commissioners requests from the Board of Water and Soil Resources a two year extension of their existing local water plan to December 31, 2005 in order to complete the revision process.

Passed this 5th day of August, 2003.

Ayes: 5 Nays: 0

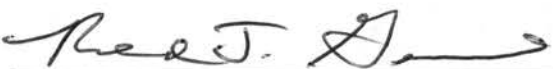


William Stangler
Chair, Le Sueur County Board of Commissioners

STATE OF MINNESOTA
COUNTY OF LE SUEUR

I, Ronald J. Germscheid, do hereby certify that I am the custodian of the minutes of all proceedings had and held by the County Board of said County, that I have compared the above resolution with the original passed and adopted by the County Board of said County at a regular meeting thereof held on the 5th day of August, 2003 at 9:30am, that the above constitutes a true and correct copy thereof, that the same has not been amended or rescinded and is in full force and effect.

IN WITNESS WHEREOF, I have hereunto placed my hand and signature this 5th day of August, 2003, and have hereunto affixed the seal of the County.



Ronald J. Germscheid, Le Sueur County Auditor

(SEAL)

**Minnesota Board of Water and Soil Resources
One West Water Street
Suite 200
St. Paul, Minnesota 55107**

In the Matter of Extending the Comprehensive Local Water Plan
For Le Sueur County (1995 Minnesota Session Law, Chapter 184,
Section 24 authorizing BWSR to approve Le Sueur County extensions.)

Whereas, Le Sueur County has a state-approved Comprehensive Local Water Plan that is effective until December 31, 2003 pursuant to Minnesota Statute 1990, Section 103B.301, and

Whereas, the Le Sueur County Board of Commissions requested an extension of the Comprehensive Local Water Plan to the Board of Water and Soil Resources, pursuant to Minnesota Session Law 1995, Chapter 184, section 24, and

Whereas, the Board of Water and Soil Resources has authorization to grant Le Sueur County extensions pursuant to Minnesota Session Law 1995, Chapter 184, Section 24.

Now Therefore, the Board of Water and Soil Resources hereby makes the following Findings of Fact, Conclusions, and Order:

FINDINGS OF FACT

1. On September 5, 2003, the Board of Water and Soil Resources received a resolution from Le Sueur County requesting an extension of their Comprehensive Local Water Plan.
2. On October 6, 2003, the Board of Water and Soil Resources staff reviewed and recommended approval of the extension request by Le Sueur County.

CONCLUSIONS

1. All relevant requirements of law and rule have been fulfilled. The Board of Water and Soil Resources has proper jurisdiction in the matter of extending the Comprehensive Local Water Plan of Le Sueur County pursuant to Minnesota Session Law 1995, Chapter 184, Section 24.

ORDER

The Board of Water and Soil Resources hereby approves the extension of the Le Sueur County Comprehensive Local Water Plan until December 31, 2005. Dated at St. Paul, Minnesota, this 22nd day of October 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Jerome Deal, Chair

October 1, 2003

TO: Board Members

THRU: Kevin Lines, Easement Section Administrator

FR: Tim Fredbo, Conservation Easement Specialist

RE: Alteration of Conservation Easement 47-07-87-01, Neil and Betty Johnson

BACKGROUND:

Josh Johnson has requested the BWSR to release 5.1 acres of land currently in a perpetual RIM Reserve conservation easement. The land is located in the SW ¼ of Section 23, T119N, R30W, Meeker County. Mr. Johnson, on behalf of his grandmother Betty Johnson, is proposing to replace it with 13.3 acres of land adjacent to the easement area. The original easement on the Johnson property for 21.8 acres was recorded on September 9, 1988. The land was eligible as a marginal agricultural land easement. The replacement acres would bring the total easement area to 30 acres. The 13.3 acres for replacement consist of approximately 5 acres of Type 3 wetland and 8.3 acres of adjacent upland. Josh Johnson wants to build a house on the 5.1 acres proposed for release.

Section 8410.3600 of the RIM Reserve rule allows the Board to alter, release or terminate an easement after consultation with the commissioners of agriculture and natural resources. An easement may only be altered, released or terminated if the Board determines that the public interests and general welfare are better served by the proposed action. To assist the Board in making it's decision the rule also states that the following items must be submitted before the Board will consider a request to alter, release or terminate an easement:

- A) A letter from the landowner to the SWCD Board requesting the change.
- B) A letter or minutes from the SWCD board recommending either approval or disapproval of the proposed change.
- C) A letter from the DNR area wildlife manager recommending either approval or disapproval of the proposed change.

All these items have been received and are attached for your review. The photo was prepared by easement staff to show the area for release and the replacement acres.

SUMMARY OF INFORMATION PROVIDED TO SUPPORT REQUEST:

Mr. Johnson has submitted a letter in support of his request. He feels that his proposal will provide improved wildlife habitat because of the larger acreage being offered for replacement and the area is more secluded.

The letter from the Meeker SWCD board supports the proposed alteration request.

Jeff Miller, DNR area wildlife manager, has also reviewed this proposal. Mr. Miller is in favor of the proposed acreage exchange on the site. He feels that the replacement acres contain better

wildlife values than what is proposed for release, and the gain in acreage provides a larger block of habitat, which is beneficial.

FINDINGS:

The easement on this property was a marginal cropland easement on 21.8 acres. The state paid the Johnson's \$10,917.17 for this easement back when it was recorded in 1988. The 13.3 acre replacement area will protect and buffer a wetland on the property that was not protected by the original easement boundary. The upland acres around the wetland have already been established to cool season grasses as the site was at one time part of a federal waterbank contract. I have discussed this with Chuck Rick, technician at the SWCD, and he says that the stand of cool seasons is excellent and there are many natives starting to take hold on the site. There are no weeds and diversity of grass species is excellent on the replacement acres. It is Mr. Rick's opinion that the stand should be left as is if the proposal is approved. The area that is proposed for release was established to native grass. If the State were to pay for a RIM easement on the additional 8.2 acres that the landowner is proposing to donate it would cost \$5,893.34.

The new house that is proposed will be directly adjacent to the current farmstead so there should be minimal disturbance to wildlife species on the site.

OPTIONS AND STAFF RECOMMENDATION:

1. Approve of the exchange on the easement. **RECOMMENDED.** It is my opinion that this proposed exchange will improve the wildlife habitat values of the easement area. The state will gain 2.5 times more acres than it originally had under easement with no additional payments to the landowner. In addition we will be placing a wetland/upland complex under easement that will provide improved habitat as stated and recommended by the DNR area wildlife manager.
2. Deny the request to exchange. **NOT RECOMMENDED.** This is a very reasonable request proposed by the landowner. The RIM Reserve easement program needs to be flexible when the benefits to the soil, water and wildlife resources our easements are protecting are maintained or increased.

June 5, 2003

Meeker County Soil and Water Conservation Board

I am writing this letter in reference to my request of the transfer of land currently in a RIM easement. I have been working with Chuck Rick to establish a plan that would allow me to release certain acres and also further progress the important conservation impact that the RIM program provides.

The land is on my Grandmothers', Betty L. Johnson, property in Darwin. My Grandfather Neil Johnson put the land, 21.8 acres in whole, into the program. I am requesting on her and my behalf the release of 5.1 acres of land, for which we will enter 13.3 acres of adjoining land into the program, over 2.5 times as much as being removed. The new land is very similar in geography but is comprised of wetland as well as upland; it is a prime environment for wildlife. The new land is also more secluded, the property to be released is just north of 2 large sheds and in an area that receives a much greater amount of traffic than the proposed new land. The RIM area as a whole would now be 30 acres and grouped in a way that would allow the area wildlife to take advantage of a wider boundary, as opposed to the narrow strip of land that it is currently.

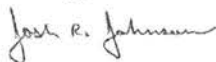
Chuck and I have yet to develop a plan for the land but I will do whatever will be best to upgrade the land in such a way that the goal of the conservational effort is met. Whether we institute a tree program, continue to grass the area, or the mixture of both. I believe Chuck will tell you that my interests are the same as yours regarding the habitat of this area.

For your reference I have attached a highlighted map off the way the current rim land is laid out and a map illustrating the way it will be. I have also updated the abstract and giving chuck a copy of a full survey of the property which contains legal descriptions for the land that would be transferred as well as a map of said land.

My intention for the land being removed is to build a home on the property. I am an employee at the FSB of Darwin and have a strong desire to become a member of the community I grew up around. This location will allow me to move close to my family and become a member of a town I care about. This is where I plan to be forever and with the cooperation and blessing of the ~~SWCD~~ office I will maintain fully the RIM property to met the standards set forth in the program.

Thank you for your attention in this matter and please contact me if a can be of any assistance.

Sincerely,



Josh R. Johnson

320-693-2826

P.S. I have also sent a copy of where approximately the home will lay on the property and at your request can provide full blue prints or any additional information you may need. Thank You.



**MINNESOTA
SOIL AND WATER CONSERVATION DISTRICTS**

MEEKER SOIL AND WATER CONSERVATION DISTRICT

916 E. St. Paul St.
Litchfield, Minnesota 55355-5324
Telephone: (320) 693-7287

August 20, 2003

BWSR
One West Water Street Suite 200
St. Paul, MN 55107

Dear BWSR,

The Meeker Soil and Water Conservation District Board of Supervisors is in favor of releasing 5.1 acres of RIM easement #47-07-87-01. Josh Johnson will contribute 13.3 adjoining acres in exchange for the 5.1 acres.

The district technician has viewed the site and the additional acres will provide excellent wildlife habitat and cover.

Sincerely,

Robert Schiefelbein, Chairman
Meeker Soil & Water Conservation District



Minnesota Department of Natural Resources

Division of Wildlife

4566 Hwy. 71 NE

Willmar, MN 56201

PHONE: (320) 231-5163

FAX: (320) 231-5485

8-13-03

Chuck Rick
Meeker County NRCS
916 East St. Paul Street
Litchfield, MN 55355

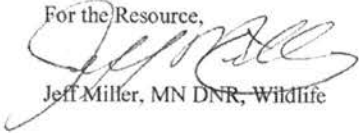
Mr. Rick:

I have reviewed the proposal of Betty Lou and Neil Johnson of Rt. 1, Box 1, Darwin, MN, to replace an existing 5.3 acre RIM parcel with an adjacent 13.3 acre area.

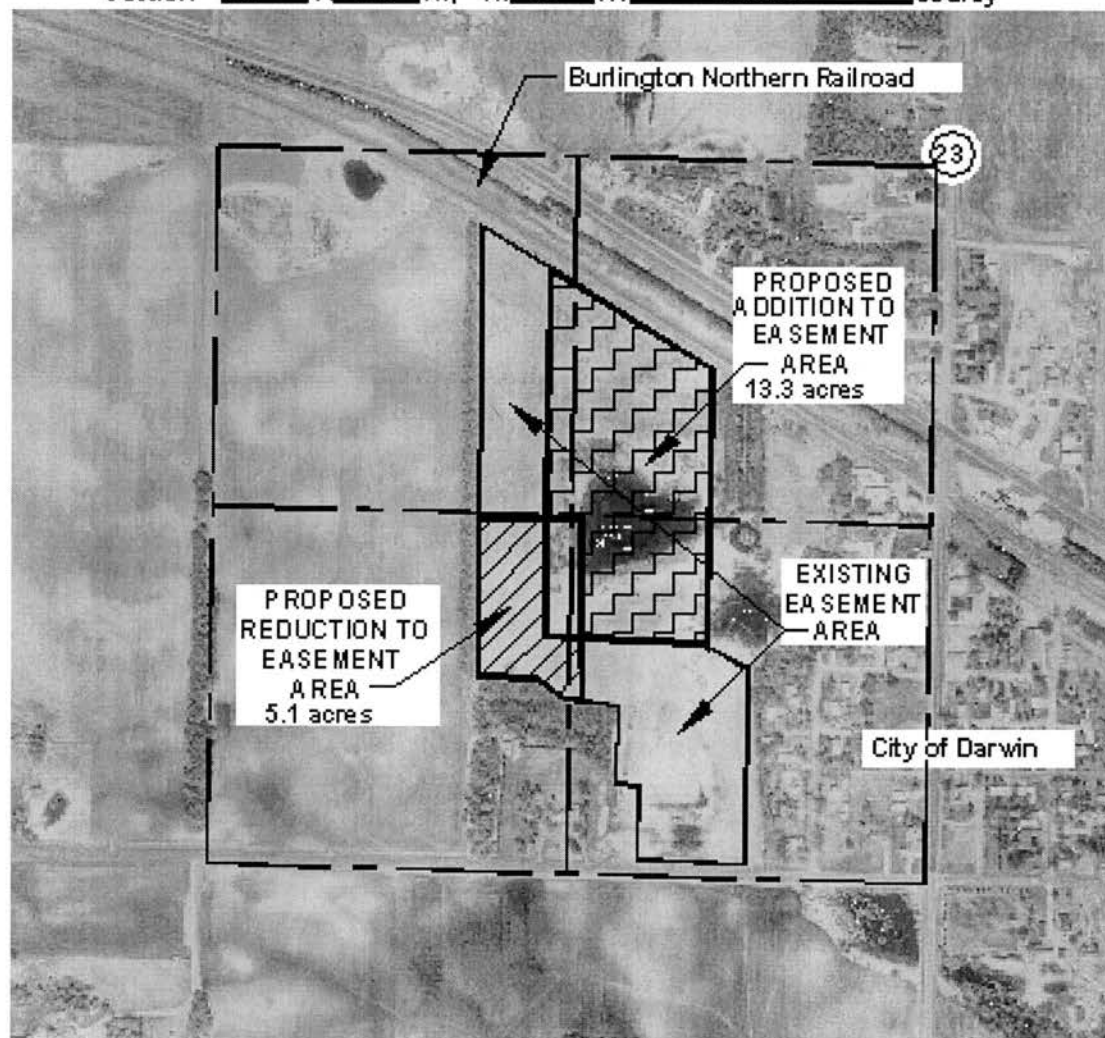
The replacement area contains excellent wetland wildlife habitat and in conjunction with other existing easement areas will provide a nice block of perpetual cover. With a nearly 3:1 ratio exchange, for what I value as better wildlife habitat, this replacement has the endorsement of the DNR, Wildlife Division.

Each of these permanent areas of protection will prove to be more and more valuable to wildlife and people as time continues to pass.

For the Resource,


Jeff Miller, MN DNR, Wildlife

Section 23 T 119 N., R. 30 W. Meeker County



10/9/2003

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October 7, 2003

TO: Board Members

THRU: Kevin Lines, Easement Section Administrator

FR: Tim Fredbo, Conservation Easement Specialist

RE: Alteration of Conservation Easement 76-01-98-03, Barry Nelson

BACKGROUND:

Barry Nelson has requested the BWSR to remove 3 acres of land currently in a perpetual RIM Reserve conservation easement. The land is located in the E ½ of the SW ¼ of Section 8, T122N, R37W (Kerkhoven Township), Swift County. Mr. Nelson is proposing to replace it with 4.2 acres of land just to the east of the present easement area. The original easement on Mr. Nelson's property for 17.1 acres was recorded on August 10, 1999. The land was eligible as a riparian area to an existing wetland. The replacement acres are also eligible for the RIM Reserve program as a riparian site.

Mr. Nelson is not requesting any practice establishment dollars for the replacement acres. He will plant the site to native grasses with species and rates specified by the Swift SWCD and pay for all costs incurred.

Section 8410.3600 of the RIM Reserve rule allows the Board to alter, release or terminate an easement after consultation with the commissioners of agriculture and natural resources. An easement may only be altered, released or terminated if the Board determines that the public interests and general welfare are better served by the proposed action. To assist the Board in making it's decision the rule also states that the following items must be submitted before the Board will consider a request to alter, release or terminate an easement:

- A) A letter from the landowner to the SWCD Board requesting the change.
- B) A letter or minutes from the SWCD board recommending either approval or disapproval of the proposed change.
- C) A letter from the DNR area wildlife manager recommending either approval or disapproval of the proposed change.

All these items have been received and are attached for your review. The photo was prepared by easement staff to show the area for release and the replacement acres.

Mr. Nelson has been to the Swift SWCD Board twice for their consideration of his proposal. Mr. Nelson's original proposal was not approved because the Swift board did not feel that the proposal was adequate. The original proposal was to remove all 4.2 acres in the SW corner of the easement and replace it with 4.2 acres just to the east of the existing easement. BWSR and SWCD staff worked with Mr. Nelson to modify his proposal. Mr. Nelson agreed to remove only 3 acres along the west edge of the easement instead of all 4.2, which maintains a 50 foot buffer along the wetland directly adjacent to the RIM easement. The Swift SWCD Board approved of this change at their October 2, 2003 meeting.

SUMMARY OF INFORMATION PROVIDED TO SUPPORT REQUEST:

Mr. Nelson submitted two letters to the SWCD Board in support of his request. They are both attached for your review. He feels that his proposal will provide improved wildlife habitat, increased buffer for adjacent wetlands and provide him closer access to Co. Rd. 28. Mr. Nelson does not currently reside on the site. Mr. Nelson has sold 10 acres in the SE corner of the E1/2 of SW1/4 of this parcel so his only reasonable access to the land not currently under easement is through the easement itself, as the rest of the property is wetland complex Type 3/4.

There are two letters from the Swift SWCD Board. The July 9, 2003 letter does not approve of Mr. Nelson's original proposal and the second letter dated October 7, 2003 approves of the revised request. There is also a letter from Mr. Orvin Gronseth, a Swift SWCD board member, which opposes Mr. Nelson's request. Mr. Gronseth owns the 80 acres directly to the west of Mr. Nelson's property.

Mr. David Soehren, DNR area wildlife manager from Appleton, has also reviewed this proposal. Mr. Soehren concludes that the trade, if native grasses are established on the replacement acres, would maintain the wildlife value of the current RIM easement. Mr. Soehren also states that any residential development on the site would reduce the wildlife values of the easement.

Mr. Soehren reviewed the site as it was originally proposed, 4.2 acres released for 4.2 acres replaced. After the plan was amended and agreed to by Mr. Nelson and approved by the SWCD Board I contacted Mr. Soehren by phone on October 7, 2003 to see if he would like to alter his comments based on the changes. He chose to make no further written comments but said he was in agreement with the change to maintain the 50 foot buffer as part of the easement.

FINDINGS:

This alteration request, as proposed, would release 3 acres and replace it with 4.2 acres, a net gain in wildlife habitat and riparian buffer for the State. At the current time Mr. Nelson has no plans to build a permanent residence on the site. He may someday decide to construct a small cabin. In any case, when he is utilizing the easement for hunting and other recreational pursuits, he would have a more accessible spot closer to county road 28 to park vehicles, camp, etc., and not be disturbing the vegetative cover on the easement area.

In the easement's current configuration Mr. Nelson would either have to put a driveway through our easement or through wetlands to access the 4.2 acres currently outside the easement area if he were to ever build something on the site. A permanent driveway through our easement would also entail an alteration of the easement boundaries to accommodate it.

Both Mr. Gronseth and Mr. Soehren state that possible development on the SW part of the easement would disturb wildlife. While this is true, so would any development of the east 4.2 acres currently outside of our easement boundary. Development of the east 4.2 acres would likely cause more disturbance to the easement's wildlife values as a driveway would have to go further from the road.

OPTIONS AND STAFF RECOMMENDATION:

1. Approve of the exchange on the easement. **RECOMMENDED.** It is my opinion that this proposed exchange will improve the wildlife habitat values of the easement area. Future disturbances and potential development will be kept nearer to the existing road and additional buffer and adjacent upland habitat will be established along the Mud Creek wetland complex which will be less disturbed by frequent traffic. As a condition of approving this request, should the Board so decide, I would suggest making it a requirement that the replacement acres be seeded to a native grass and forb mix prescribed by the Swift SWCD, with all costs being Mr. Nelson's responsibility.
2. Deny the request to exchange. **NOT RECOMMENDED.** This is a reasonable request proposed by the landowner. Mr. Nelson worked with BWSR and SWCD staff to make his proposal better fit the resource protection needs on the site after his original proposal was denied. The RIM Reserve easement program needs to be flexible when the benefits to the soil, water and wildlife resources our easements are protecting are maintained or increased.

Ladies and Gentlemen of the board

I have a parcel of property which currently has 17.1 acres of RIM easement. Due to the present location of RIM, I find a number of disadvantages in property accessibility. I am requesting a trade of 4.2 non-existing easement acres with 4.2 existing. By moving the front 4.2 acre parcel to the back non-enrolled plot would give ample access for vehicle parking and camper placement without wildlife disturbance.

I also believe a new and successful planting of native prairie grass on the back 4.2 acres would provide a safer and higher production of pheasant and duck nesting, the further from county rd 28 the less chance for habitat road kill.

The back 4.2 acres I also believe is more susceptible to soil erosion. Again a healthy planting of native prairie grass would be an added bonus ensuring good soil conservation practice.

I would very much appreciate you're understanding and accepting of this proposal

Thank you. Barry Nelson

Ladies and Gentlemen of the board

I hereby set before you a second document of proposal to move, expand or alter 4.2 of an existing 17.1 acre RIM easement.

We now have existing support from the area DNR Wildlife Biologist and two Department of Soil and Water specialists to move or exchange the front 4.2 easement acres to the back 4.2 acres of non-easement land. New to this proposal is a willingness on my part to include keeping 1.2 acres within the front 4.2 acres for a buffer strip. (50 ft. on the ease boarder running north, south) 3 acres on the southwest corner would then remain easement free.

Producing three buffer zones for the protection of three wetlands should not only enhance wildlife nesting habitat, but protect against wind and soil erosion giving way to good water quality practices.

I have spent the better part of 12 years working to make this property an icon for good conservation practices and would by no means present a proposal to jeopardize it.

Board members, I am asking in good faith for your trusted support of this proposed easement exchange.

Thank you,

Barry Nelson

Swift County Soil & Water
1430 Utah Ave
Benson MN 56215
320-842-7201
320-843-4168 Fax



October 7, 2003

State of Minnesota
One West Water Street
Suite 200
St. Paul MN 55107

Attention: Tim Fredbo

The Swift County Soil & Water Conservation District board has recently reconsidered the request by Barry Nelson to trade acres on his RIM easement. We now feel that the public interest and general welfare of the land would be better served now that Mr. Nelson is leaving a 50 foot wide filter strip along the West edge of the wetland in the RIM program. By doing this, the landowner is giving the RIM program 4.2 acres and taking out ONLY 3 acres of the RIM easement.

Sincerely,

Clinton Schuerman
Chairman, Swift SWCD



Minnesota Department of Natural Resources

Division of Wildlife

National Guard Armory, 25 North Munsterman St.

Appleton, MN 56208

PHONE: (320) 289-2493

FAX: (320) 289-2551

August 19, 2003

SWCD Board of Supervisors

Swift County SWCD

1430 Utah Ave.

Benson, MN. 56215

Dear County Supervisors,

I have had the opportunity to view the Barry Nelson property in the E ½ of the SW ¼ of Section 8, Twp 122N, R37W (Kerkhoven Twp). Mr. Nelson proposes the trade of a parcel of cropland for a parcel of land currently enrolled in the State of Minnesota's Reinvest In Minnesota (RIM) easement program. I have not seen a formal plan for this trade but did view the property with Mr. Nelson on July 24, 2003. He expressed a desire to trade 4.2 acres of land not enrolled in his RIM agreement (previously cropland - annual food plot) on the east edge of the property for 4.2 acres of land that is enrolled in the current RIM agreement on the west edge of the property. Mr. Nelson has sold the building site and marsh area (approximately 10 acres) in the SE corner of the property and now finds it difficult to access the north part. He explained that the proposed trade would give him better access from Swift CSAH 28 to the north end of the property and would allow him sufficient room to build on should he decide to.

The two tracts of land have comparable potential as nesting cover, with the area offered as a replacement located slightly closer to the wetlands on the property. Also the area offered as a replacement is further removed from the county road so disturbance from traffic would be less. Potential utilization of the two parcels by other wildlife species should be comparable.

Except for a debris pit and junk pile near the county road, the 4.2 acres of RIM land on the west edge proposed for the trade now has an excellent stand of mixed native grasses and forbs resulting from the cost shared seeding required by the RIM agreement. The 4.2 acres proposed as an exchange has a mixture of cool season grasses (mostly brome and quack) and sweet clover as dominant species. The quality of the cover on the two parcels is clearly not comparable and would require a successful native grass/forb restoration on the non-RIM portion to make the trade equitable. A portion of the proposed exchange also has a musk thistle problem that would need control before any new seeding takes place.

If the parcels were traded and Mr. Nelson or subsequent owners established a new building site on the west edge of the property, a significant disturbance factor to wildlife utilization of this side of the RIM agreement would be introduced.

In their present condition the two tracts of land do not offer comparable wildlife utility and the proposed trade would not maintain the wildlife value of the current RIM easement. If a successful native grass/forb seeding of the proposed replacement acres would be accomplished

the trade would be more comparable. If the disturbance factor created by a new building site is added, the wildlife values of this RIM easement will be reduced.

The debris pit and junk pile near the road, (inherited when Mr. Nelson bought the property), has been partially cleaned up. Barry has pledged to complete this job regardless of the outcome of proposed trade.

Sincerely,

A handwritten signature in cursive script, appearing to read "David Soehren".

David Soehren
Area Wildlife Supervisor
Appleton, MN

Cc; Barry Nelson
John Schladweiler

To: Swift County Soil & Water Board

From: Barry Nelson

Date: 07/01/03

Re: RIM acres

I propose to change the existing RIM area. I would like to trade the existing acres for another spot North and East of the current area. It is still going to consist of 4.2 acres.

This proposed area, I feel, would better enhance the wildlife habitat. There is more nesting and water for many species to flourish.

If you have any questions, you can contact me.

CONFIDENTIAL

July 9, 2003

State of Minnesota
One West Water Street
Suite 200
St. Paul MN 55107

Dear Sir

The Swift County Soil & Water Conservation District board disapproves of the request by Barry Nelson to trade acres on his RIM easement. We do not feel that the public interest and general welfare of this land would be better served.

Sincerely,

Swift County Soil & Water
Swift County Soil & Water Board

SWIFT COUNTY SOIL & WATER
1430 UTAH AVE
BENSON MN 56215

July 8, 2003

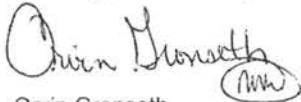
State of Minnesota
One West Water Street
Suite 200
St. Paul MN 55107

Dear Sirs:

The public interest concern will not be better by this trade off 4.2 acres in a RIM contract owned by Barry Nelson. An access and possible driveway to the back 40 acres of this property will disturb wildlife in the area.

I, personally, know what could happen in the future as I own the 80 acres adjacent to the West. I have a RIM contract myself and feel that this is something I agreed to last forever, I want my choice not to be changed.

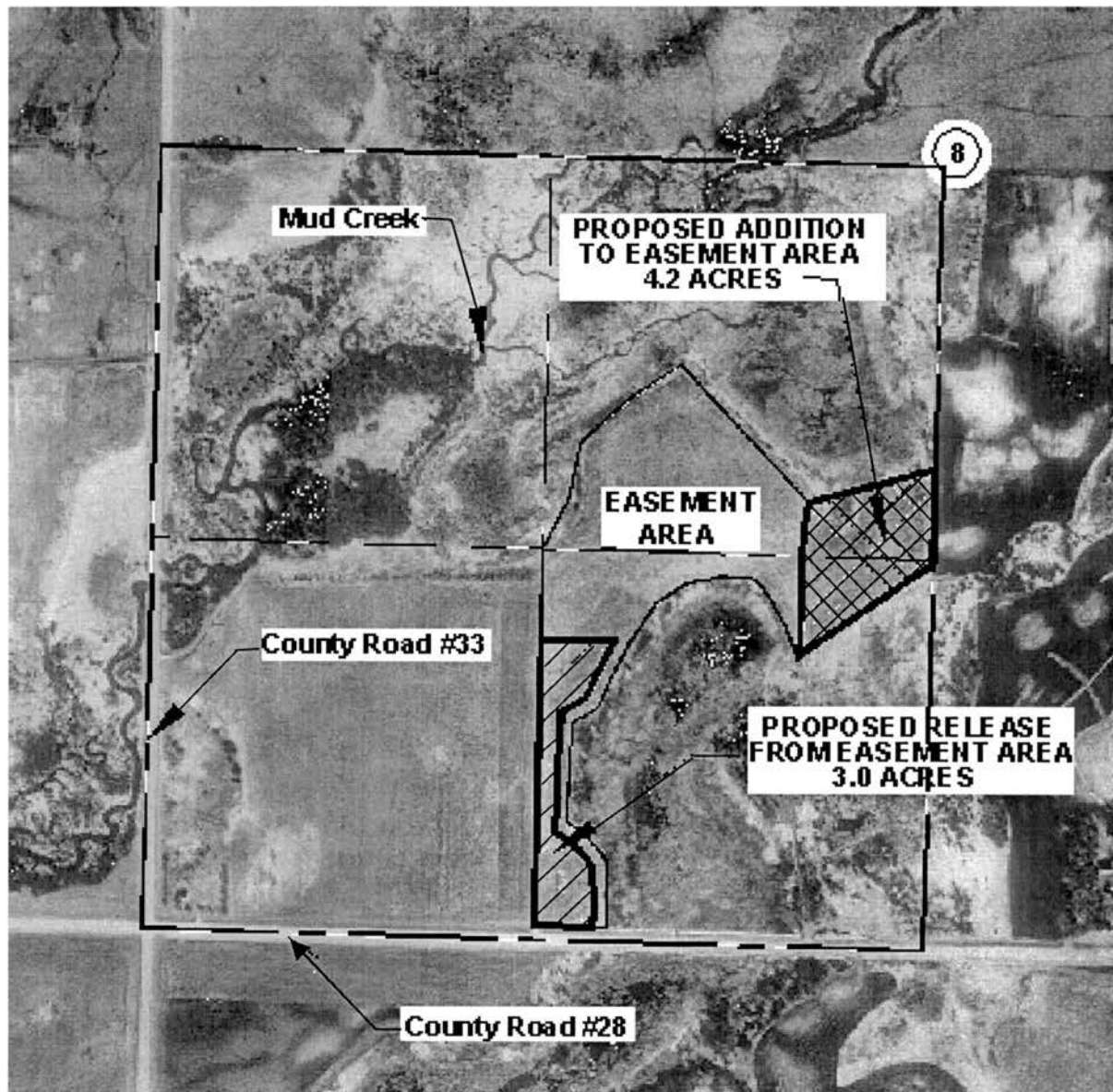
Sincerely,

A handwritten signature in cursive script that reads "Orvin Gronseth". To the right of the signature is a small, circular stamp containing the letters "MNH".

Orvin Gronseth
Swift County Soil & Water Supervisor

SWIFT COUNTY SOIL & WATER
1430 UTAH AVE
BENSON MN 56215

Section 8 T. 122 N., R. 37 W., Swift County



0 660'
Scale

10/9/2003

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Minnesota Board of Water and Soil Resources
One West Water Street, Suite 200
St. Paul, Minnesota 55107

In the Matter of the Enlargement of the
Heron Lake Watershed District in Murray
County, Minnesota, pursuant to Minnesota
Statutes Section 103D.261.

**ORDER ENLARGEMENT
OF HERON LAKE
WATERSHED DISTRICT**

Whereas, the Village of Lime Creek and Murray County filed a Petition with the Board of Water and Soil Resources (Board) dated August 26, 2003, to enlarge the Heron Lake Watershed District pursuant to Minn. Stat. § 103D.261, and;

Whereas, the Board has completed its review of the Petition;

Now Therefore, the Board hereby makes the following Findings of Fact, Conclusions, and Order.

FINDINGS OF FACT

1. **Boundary Change Petition.** The Petition to enlarge the Heron Lake Watershed District dated August 26, 2003, was filed by Murray County with the Board on August 27, 2003.
2. **Property Description.** The territory to be included in the watershed district, the Petitioned Area, is the Village of Lime Creek and is contiguous to the watershed district. The Petitioned Area is fully described in Exhibit A of the Petition and depicted on a map attached to the Petition as Exhibit B, both attached hereto and fully incorporated herein.

3. **Reasons for Enlargement.** The Petition lists the following:
 - A. The Petitioned Area is contiguous to the Heron Lake Watershed District.
 - B. The Petitioned Area can be feasibly administered by the Heron Lake Watershed District.
 - C. The addition of the Petitioned Area to the Heron Lake Watershed District would be conducive to the public health and welfare because it would allow the watershed district to participate in management of the flow of water within the actual watershed, and it would allow the Petitioned Area to participate in watershed district programs which programs assist in maintaining clean water and managing the control of the flow of water.
4. **Hydrologic Boundary.** A map accompanying the Petition, Exhibit B, clearly shows the Petitioned Area is within the watershed boundary of the watershed district.
5. **Notice of Filing.** Legal Notice of Filing was published in the Fulda Free Press on September 10, 2003. The Legal Notice of Filing along with a copy of the map, which is Exhibit B of the Petition, was also mailed on September 4, 2003 to several addressees including the Murray County Auditor, the Murray Soil and Water Conservation District, the Village of Lime Creek, and the watershed district.
6. **Public Hearing.** The legal notice was published pursuant to Minn. Stat. §§ 103D.105, Subd. 2 and 103D.261, Subd. 1 (c), which require within 30 days of the last date of publication of the notice of filing of the Petition that at least one request for hearing be received by the Board before a hearing will be held. No requests for hearing were received during the specified time and no hearing was held.
7. **Comments Received.** The only comment received was from the Murray Soil and Water Conservation District Board of Managers which recommended approval of the Petition.

8. **Board Staff Report.** Board staff recommend the boundary change be approved. The boundary change is not controversial.

CONCLUSIONS

1. The Petition for enlargement of the Heron Lake Watershed District is valid in accordance with Minn. Stat. § 103D.261.
2. Proper notice of filing was given and a public hearing was not held in accordance with applicable laws.
3. All relevant substantive and procedural requirements of law and rule have been fulfilled.
4. The Board has proper jurisdiction in the matter of ordering a watershed district enlargement.
5. The enlargement of the Heron Lake Watershed District as proposed in the Petition would be for the public welfare and public interest and would advance the purpose of Minnesota Statutes Chapter 103D.
6. The enlargement of the Heron Lake Watershed District as proposed in the Petition affects land that drains into the watershed district and the Petitioned Area is contiguous to the watershed district.

ORDER

The Board hereby orders that the Heron Lake Watershed District be enlarged to include the Petitioned Area, namely the Village of Lime Creek, which is fully described in Exhibit A of the Petition and further depicted on a map attached to the Petition as Exhibit B, both attached hereto and fully incorporated herein.

Dated at Saint Paul, Minnesota this 22nd day of October, 2003.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

By: _____
Jerome Deal, Chair

RED RIVER BASIN BOARD



Water Management Goals and Objectives

April 6, 2001

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INTRODUCTION

The Red River Basin Board (RRBB), an international, not-for-profit organization, was formed to initiate a grass roots effort to address water issues in a basin-wide context. It maintains offices in Moorhead, MN and Winnipeg, MB. The RRBB is dedicated to wise and innovative management of the Red River Basin's water resources. The RRBB's 25-member Board of Directors represent local Basin cities, counties, rural municipalities, watershed boards, water resource districts, joint powers boards, First Nations, and other local interests. The Governors of North Dakota, Minnesota, and South Dakota, the Premier of the Province of Manitoba, and the two federal governments have also appointed members to the Board. Each of the Board Directors has an alternate who attends meetings on a regular basis and votes in the Director's absence.

The RRBB has adopted a mission statement, a vision, and a set of Guiding Principles to lead to a framework for decision-making and future initiatives (Appendix A). The RRBB has also adopted a "Two-Path" approach to water management planning (Appendix B). Basin residents, community leaders, and other experts were actively involved in the development of these documents. Although general in nature, they provided the foundation for development of basin-wide water management goals and objectives through the RRBB's planning process.

As part of the planning process, nine inventory work teams were assigned the task of assessing the current status of the Basin's land and water management problems, issues, and opportunities in the following areas: Water Law; Water Institutions; Hydrology; Water Supply; Water Quality; Drainage; Flood Damage Reduction; Conservation; Fish, Wildlife, and Outdoor Recreation. In addition, the nine inventory teams developed goals and objectives based on information gathered during the inventory process and, from the teams' perspectives, the expectations of the Basin's residents. Inventory team membership included representatives from state and federal agencies, local city and county governments, and local interest groups. All nine Inventory Reports are available on the RRBB website (www.redriverbasinboard.org). Copies of the reports in compact disc (CD) or bound-document format may also be requested.

The RRBB asked Basin residents to help develop the Water Management Goals and Objectives, which were adopted by the RRBB on April 6, 2001. Basin residents provided comments and opinions to the Board through the RRBB's website; during a series of eight public meetings held throughout the Basin during October and November 2000; and during the 18th annual Red River Basin Land and Water International Summit Conference, January 16-18, 2001, sponsored by The International Coalition for Land and Water Stewardship, with participation of the RRBB. The feedback received from this public review process was used to modify the Water Management Goals and Objectives. Periodically, the goals and objectives will be publicly reviewed to ensure they continue to reflect the needs of Basin residents. The goals and objectives, along with the mission statement, vision, and the Guiding Principles, will provide a framework for the RRBB to conduct business in the future. Together, Basin residents and the RRBB can improve the way land and water resources are managed in the Basin today and in the future.

FISH, WILDLIFE, AND OUTDOOR RECREATION

- GOAL 1:** Support and encourage efforts to provide a diversity of habitats in size, shape and connectivity for stable and diverse fish and wildlife population to thrive in the long term and provide a host of landscape and societal functions
- GOAL 2:** Support conservation, management, and restoration of diverse and viable native fish and wildlife populations associated with tall-grass prairie, wetlands, woodlands, and riparian habitats.
- GOAL 3:** Support the enhancement and development of recreational activities, infrastructure and access to the Basin's natural resources while improving the quality of life and growth of a flourishing tourism industry in the RRB.
- GOAL 4:** Develop and encourage opportunities for environmental education and public awareness in order to foster implementation of holistic management and stewardship of the RRB's fish and wildlife, habitat and water resources

CONSERVATION

- GOAL:** Advance a conservation ethic in the Red River Basin to support the delivery of conservation programs for all the land in the Red River Basin.

Objectives:

1. Support the establishment of delivery organizations in places where none exist to provide complete coverage of local units of government such as soil conservation districts, soil and water conservation districts, and conservation districts.
2. Promote enhancement of public and private sectors to deliver conservation services.
3. Promote water resources management decisions based on natural rather than political boundaries.
4. Advocate and support additional funding initiatives for established conservation programs.
5. Recognize and encourage "non-program" conservation activities undertaken by landowners.
6. Support the empowerment of local units of government to promote a conservation message.
7. Promote conservation and best management practices through educational outreach programs aimed at Red River Basin residents.
8. Facilitate communications between producers and agencies so programs can be tailored to meet the needs of Basin producers and landowners.
9. Support integrated planning approaches and conservation criteria in resources management projects, whereby potential opportunities and impacts affecting the water-related ecosystem are considered.
10. Support tiered incentives that encourage the use of privately owned marginal lands for water retention, wetlands habitat, and carbon sequestration and encourage conversion of developed marginal agricultural lands into natural cover, water retention and wetlands habitat areas.
11. Promote conservation programs which protect prime and/or unique farmland.

FLOOD DAMAGE REDUCTION

GOAL 1: Reduce flood damages in the Red River Basin, through a watershed approach.

Planning Process Objectives

1. Encourage FDR initiatives to consider a comprehensive review of all reasonable alternatives.
2. Develop a formal evaluation and tracking process for projects seeking RRBB support.
3. Support the inclusion of all damages and benefits in project feasibility evaluations, including traditionally non-quantified damages and natural resource impacts.
4. Encourage project stakeholders to make decisions based on empirical information, rather than personal bias or political pressure.
5. Assure that the implementation of FDR initiatives does not result in a net reduction to local tax base.

Data/Information and Research Objectives

6. Encourage sharing of floodwater management and natural resource data/information, both within and outside the Basin.
7. Support the continuation of the Red River Basin Disaster Information Network, which could serve as a repository for Red River Basin resource data.
8. Encourage uniformity in assessing, reporting and archiving flood damage/recovery statistics between jurisdictions and agencies.
9. Encourage implementation and continuation of FDR research and technical support programs, including funding of a technical resource service to provide technical support to the RRBB and other agencies, organizations, and governmental units in the RRB.
10. Advocate agencies to identify areas that are major contributors to flooding in the Red River Basin so FDR efforts can be focused effectively.
11. Encourage the use of standard hydrologic and hydraulic model(s) for all jurisdictions in the Red River Basin.

Coordination and Education Objectives

12. Encourage basin-wide coordinated design and operation of water storage structures.
13. Encourage and support efforts to inform and provide early involvement of FDR project stakeholders.
14. Encourage project proponents to invite policy-making officials to visit FDR project sites. Site visits would allow these officials to observe, first-hand, the issues facing residents of these areas.
15. Educate local governments and residents regarding the public benefits of FDR projects endorsed by the RRBB.

Policies and Programs Objectives

16. Encourage policy and legislative changes to help facilitate development and implementation of FDR projects.
17. Support programs that compensate farmers/landowners for designed water storage.
18. Encourage and support legislative changes that promote and/or reward wise land use and conservation of natural resources by landowners.
19. Encourage policy changes to government and private programs so water can be stored on land set aside for conservation purposes.
20. Promote and support the development of acceptable, uniform FDR minimum design standards for all jurisdictions in the Red River Basin.
21. Encourage changes to policies that prohibit construction of FDR structures (eg. levees) on floodplain land purchased through FEMA flood-buyout funds.
22. Encourage U.S. Congress to fully fund FDR programs, such as the U.S. Army Corps of Engineers' 14, 205, 206, 208, and 1135 Continuing Authority Programs and Technical Resource Service; Natural Resource Conservation Service's PL566 program; and other state and federal programs such as Conservation Reserve Enhancement Program (CREP).
23. Encourage the Canadian federal and provincial governments to develop proactive programs to assist local governments with planning, designing, and constructing flood control projects.

24. Encourage the development of funding mechanism(s) for projects that provide trans-border FDR benefits.

Permitting Objectives

25. Encourage permitting agencies to clearly define policy and permit requirements early in the project development process.
26. Encourage concurrent review of FDR projects by all permitting agencies to expedite the permitting process.
27. Encourage permitting agencies to conduct internal reviews to eliminate unnecessary steps in the permitting process

GOAL 2: Ensure flood/natural disaster recovery programs meet the needs of all RRB residents.

Objectives:

1. Review the effectiveness and equitable treatment of disaster recovery programs and eligibility requirements.
2. Promote the enhancement of recovery assistance programs that are available to all RRB residents, businesses, and agricultural producers regardless of financial status or locality.

DRAINAGE

GOAL 1: To ensure that management of water resources within the Red River Basin occurs on a hydrologic/watershed basis, rather than a political boundary basis.

Objectives:

1. Support the development of adequate criteria for agricultural drainage throughout the Basin.
2. Support protocols to provide for the cooperative implementation of inter-jurisdictional projects.
3. Encourage joint drainage authorities to aid in the implementation of cross-boundary drainage solutions in areas where there are on-going disputes.
4. Support and facilitate the establishment of agreements as applicable between Manitoba, Minnesota, North Dakota, and South Dakota for dealing with water issues in inter-jurisdictional sub-watersheds.
5. Encourage management of water on a watershed basis.

GOAL 2: To ensure that all proposed drainage systems will incorporate adequate flood protection for downstream land/communities, protection and enhancement of natural resources, and the improvement of agricultural production within the system's entire drainage area.

Objectives:

1. Support the evaluation of downstream impacts on stream flow for proposed drainage projects.
2. Support the installation of temporary storage areas for any proposed drainage project, where appropriate.
3. Support storage areas that mitigate any drainage works within the Basin.
4. Support watershed projects that control runoff and improve water quality within the Basin.
5. Support initiatives that promote land use practices that retain water where it falls on the landscape.

GOAL 3: To ensure that drainage management decisions will be based upon accepted scientific and public information.

Objective:

1. Support the evaluation and standardized information dissemination of water research projects within the Basin (eg. evaluate the joint United States Geological Survey and United States Fish and Wildlife Service project on the effects of wetlands on discharge).
2. Support the use of computer generated information to determine where drainage impacts occur.
3. Support the development of an information and education program that enables the public to understand the impacts and benefits of drainage.

WATER SUPPLY

GOAL 1: To ensure the long-term sustainability of the Basin's surface water and groundwater for the benefit of all Red River Basin residents today and into the future.

Objectives:

1. Encourage management policies that provide for long-term viability of aquifers and surface water resources.
2. Implement comprehensive, integrated planning and management of water resources to accommodate a balance in resource preservation, conservation, and consumption.
3. Encourage all jurisdictions to implement strategies that maintain the quality and diversity of the Basin's waters while acknowledging regional natural variation.
4. Encourage water education and development programs/projects directed toward the reuse, reclamation, conservation and overall wise use of water resources.

GOAL 2: To meet priority uses as determined by the Red River Basin's planning process.

Objectives:

1. Support development and enhancement of municipal and rural water systems required to meet current and projected quantity and quality needs.
2. Encourage development of emergency management plans for water supply contamination, and drought preparation, mitigation and assistance.
3. Support water supply development to meet current and projected beneficial uses.
4. Support the evaluation of the quality and quantity of surface and ground water resources, and provide public inventories of water availability.
5. Explore need, justification and options for providing in-stream flows in major streams.
6. Encourage water supply development projects that recognize long-term sustainable use of available resources.
7. Encourage water management authorities to consider impacts of irrigation, industrial and other water development proposals involving direct or indirect water use on existing and potential water use as well as impacts on the environment.
8. Support improvements to and maintenance of water based recreational opportunities.
9. Identify current and future water supply needs and options to meet economic needs.
10. Support the development of water resources sufficiently to support a broad economic base, while recognizing long-term sustainable use of available resources.
11. Support the development and maintenance of a consistent water supply for domestic, municipal, agricultural, recreational, wildlife, and industrial uses that consider impacts on existing and potential water developments, as well as the environment.
12. Support development of water supplies for future irrigation to support growth in the agricultural industry.
13. Support programs and funding to advance technologies that increase the efficiency of agricultural water conveyance systems.
14. Support programs and funding for research to determine how, when, and at what rates water can be applied to various soil types and crops to arrive at long-term, cost effective, sustainable use of water.
15. Encourage continued research efforts regarding biota transfer issues.
16. Encourage water supply project sponsors to consider multiple use projects.

WATER QUALITY

GOAL 1: Coordinate Basin-wide water quality standards and protection efforts for Red River Basin waters.

Objectives:

1. Facilitate coordination of water quality protection efforts of local, state and federal agencies and the International Joint Commission.

2. Support and facilitate the development of mechanisms for basin-wide cooperation (e.g. MN, ND and MB Standard Operating Procedures for field samplers, coordinated water quality network using citizens, local, state, and federal governments).
3. Encourage comprehensive community involvement in water quality measurement and assessment by supporting development of citizens programs for monitoring, education and information.
4. Support and encourage research to strengthen and expand assessment tools for understanding water quality.
5. Encourage water development of region-specific water quality standards and goals for the three states and province.

GOAL 2: Ensure that water quality is protected and restored to meet designated beneficial uses of all RRB waters.

Objectives:

1. Support and encourage the enhancement of physical, chemical, and biological integrity of RRB waters.
2. Encourage water management agencies to increase the number of miles of assessed streams and acres of lakes and reservoirs to determine compliance with water standards and designated uses.
3. Encourage development of specific pollution reduction targets for impaired waters in the RRB.
4. Encourage and support basin-wide water quality research on an on-going basis.
5. Facilitate and support coordination of jurisdictional water quality restoration efforts, including both regulatory and non-regulatory water quality programs.

HYDROLOGY

GOAL 1: Develop and maintain a virtual database for the Red River and its tributaries.

Objectives:

1. Encourage individual organizations, both governmental and private, to collect, maintain and store their data in a virtual database system.
2. Support the collection of, and encourage the funding of, basin-wide hydrologic and hydraulic data, such as precipitation gauges, precipitation distribution data, digital elevation data, and stream gauge network data.
3. Support and encourage the standardization of data collection, reporting, and archiving procedures.
4. Reactivate the Red River Basin Mapping and Database Special Team to provide oversight of a virtual database system.
5. Initiate the development of a Red River Basin library, where written reports pertaining to the Red River Basin can be catalogued and stored for use by anyone.

GOAL 2: Improve/expand water research by universities and other local, state/provincial, and federal entities that would benefit the entire Red River Basin.

Objectives:

1. Encourage continued hydrologic and hydraulic modeling efforts and water research in the Red River Basin
2. Support and encourage updating and expanding existing models and data collection networks.
3. Support the development and implementation of basin-wide hydrologic and hydraulic modeling efforts.
4. Support the implementation of more "what if" modeling efforts.
5. Encourage further studies and inventories of groundwater resources in the RRB.

WATER INSTITUTIONS

- GOAL 1:** The Red River Basin Board will become the water planning and management coordinating organization in the Red River Basin.
- GOAL 2:** Promote the advantages, capabilities and intended purpose of the RRBB throughout the RRB.

WATER LAW

A review of Canadian, American, Provincial, and State water legislation indicates that issues possibly impacting the Red River Basin are addressed in a similar manner. The major exception is in regard to the use and allocation of water. Minnesota's law is based on the riparian doctrine while North Dakota's, South Dakota's and Manitoba's laws are based on the prior appropriation doctrine.

Legislation in both countries define standards of water quality, control amount of water allocated and address projects which may impact navigable waters.

Boundary Waters Treaty and United Nations Convention on Environmental Impact Assessment in a Transboundary Context ensure that transboundary water projects, which may impact another country, are reviewed and mitigated.

No significant areas of legislation overlap or lack of legislation were identified. Provided legislation, treaties and agreements are adhered to, conflicts between countries should be minimal.

APPENDIX A

Red River Basin Board Vision, Mission, and Guiding Principles

Mission – Our mission is to facilitate comprehensive water management in the Red River Basin.

Vision – Residents of the Red River Basin will enjoy safe, abundant, high quality water supplies and protection from the impact of damaging floods and droughts.

Guiding Principles

- Our first priority in evaluating projects is human health and safety.
- Resolution of problems and issues should be initiated at the appropriate local level, with all interested parties encouraged to participate.
- Individual and societal needs will be balanced in seeking resolution of basin resource issues and problems.
- Incentives are preferable to regulations in developing solutions.
- The Red River Basin Board will encourage that regulations be consistent within and among jurisdictions.
- The Board will keep people informed, welcome discussion and provide opportunities for participation in its debate and decisions.
- The Board will seek comprehensive solutions to resource issues and problems.
- Water management that is intended to benefit a specific area will be designed to minimize adverse effects on other areas.
- The Red River Basin's water quality will be maintained and improved by proper water and land management.
- All development proposals that involve water use, direct or indirect, will be reviewed for their impact on other existing and potential water uses, as well as their impact on the environment.
- Conservation is a primary consideration in meeting water supply needs identified in the Basin water management plan.
- The Board will examine all sources of water to maintain and expand the supply available for future needs, both human and economic.
- To minimize flood damage, water will be retained where practical in agreement with local, watershed and Basin water management plans.
- All approaches to managing floods and minimizing flood damage will be evaluated for their possible impact on the economy, community and environment.
- Land subject to flooding should be developed only according to planning guidelines that prevent human suffering and property damage, limit public costs and liabilities, and address the impact on the environment.
- River, lake, wetland and shoreline habitats will be preserved, restored, improved and managed for the benefit of Basin residents, the region's economy and the overall environment.
- The Board's approach to land use issues will balance parallel commitments to maintaining a prosperous agricultural economy while conserving natural resources.
- Natural, cultural and heritage resources will be conserved and managed to support diversity in the Basin.
- Projects intended to enhance water quality and quantity will be designed to maintain and improve the quality of the environment, as well as create economic benefits for the Basin.

APPENDIX B

Red River Basin Board Two-Path Approach

Path A: Advanced projects seeking Board endorsement

Projects under Path A include those that are in advanced stages of planning, or may be partially developed and have run into roadblocks. Examples of these types of projects could include the Devils Lake outlet projects, projects related to the Dakota Water Resources Act, or Grand Forks flood control.

The primary motivation for proponents of these projects to come to the Red River Basin Board is to receive regional endorsement of their project. In some instances, projects presented to the Board are non-controversial, and reflect the Guiding Principles developed by the Board. In cases such as this, (the North Ottawa Project for example) the Board will likely grant their support. The support of the Board, however, only means the Board will offer political support (i.e. the Executive Director will lobby for them in their favor on behalf of the Board and the region it represents). This does not mean the Board will provide funding, or serve as a regulatory authority.

In contrast, there are also those existing projects in the Basin that are highly controversial at the present time. Examples could include the Devils Lake outlet projects, projects related to the Dakota Water Resources Act, the Maple River Dam project, and border dikes. The expectations of the Board in addressing these types of projects will be to offer conflict resolution, or in some instances, recommend professional mediation. This will depend on the complexity and the degree of the conflict between the opposing interests. Mediation efforts may ultimately result in the support of the Board, or at least a resolution of the conflict between the oppositions. The parties responsible for any costs incurred during professional mediation remains to be established.

Path B: Comprehensive, ongoing basin planning process

Path B, the anticipatory or identification path, is more related to the Board's ongoing planning process. This includes some of the Boards completed actions, such as the development of vision and mission statements, and guiding principles. In addition, the Boards ongoing or future activities, such as their inventory of the Basin's existing conditions, future development of specific goals and measurable objectives, and the anticipation and identification of projects or programs that can serve or solve the Basin's needs are also important components of this process. To be successful, the Boards planning efforts must address the Basin's needs and problems in a comprehensive way that includes all involved stakeholders. This process is then expected to lead to specific recommendations the Board can support as a region. As previously discussed, the Board has already been involved in certain aspects of this path. A general outline, or steps included in Path B are envisioned as follows:

Step 1: Develop Vision and Mission Statements (Completed)

Step 2: Develop Guiding Principles (Completed)

Step 3: Inventory Existing Conditions (Completed)

Step 4: Develop Goals and Measurable Objectives (Completed)

Upon completion of the inventory process, the Board will have a greater understanding of the conditions that currently exist within the Basin. This information will then help the Board develop specific goals, as well as measurable objectives that will identify what the Board intends on accomplishing to meet their

vision and mission. In addition, this will help in answering the question: what do the people of the basin want the region to "look like" in 10, 20, or even 50 years?

Step 5: Identification of Needs (projects or programs?) (In progress)

Once the Board has developed goals and measurable objectives, they must then identify various needs that exist within the Basin. This may include general needs such as improved flood protection, more reliable water supplies, drought contingency programs, etc. In relation, the Board will also need to decipher if these needs shall be better met with projects or programs. The identification of these potential projects or programs will then serve the purpose of eventually advancing the region toward its goals and objectives.

Step 6: Project or Program Development (In progress)

Project and program development that address the identified needs (or problems) in the Basin will require the involvement of all stakeholders, the incorporation of the Guiding Principles, and continued cooperation among all interests. Any differences that may arise will be worked out with professional mediation as a last resort. A filter and prioritization process for the various projects/programs as they evolve remains to be developed.

Remarks: Extensive public involvement is a necessary component of the "Path B" planning process. In addition, the "Path B" planning process must recognize the anticipated contributions of projects and programs in "Path A" may make in addressing needs and solving problems within the Basin.

Goals

RRBC

As part of the planning process, nine inventory work teams were assigned the task of assessing the current status of the Basin's land and water management problems, issues, and opportunities in the following areas: Water Law; Water Institutions; Hydrology; Water Supply; Water Quality; Drainage; Water Supply; Flood Damage Reduction; Conservation; Fish, Wildlife, and Outdoor Recreation.

In addition, the nine inventory teams developed goals and objectives based on information gathered during the inventory process and, from the teams' perspectives, and the expectations of the Basin's residents.

The RRBC asked Basin residents to help develop the draft goals and objectives. Basin residents were able to provide comments and opinions to the Board during a series of eight public meetings held within the Red River Basin.

RED RIVER BASIN COMMISSION GOALS AND OBJECTIVES



Return to the [Red River Basin Home Page](http://www.redriverbasincommission.org/Goals/goals.html)



RRBC -- 3 YEAR WORK PLAN

	<u>2003</u> JFMAMJJASOND	<u>2004</u> JFMAMJJASOND	<u>2005</u> JFMAMJJASOND	<u>Beyond</u>
<u>LEADERSHIP:</u>				
• <u>PLAN MANAGEMENT:</u>				
Complete Basin Plan (Strategy #1)	-----			
➤ FDR Inv. Update	-----			
➤ Flood Sect. of Plan		-----		
➤ Other Inv. Updates	-----			
➤ Other Plan Sections		-----		
Implement Plan G/Ob (Strategy #1)	-----			
➤ Integrate FDR Section	-----			
➤ Integrate Other Sections		-----		
➤ Full Implementation	-----			
Provide Basin Perspective	-----			
• <u>LEGISLATIVE:</u>				
Link Plan Dev. to Federal Gov (Strategy #2)	-----	-----	-----	-----
➤ Through IRRB/IJC	-----	-----	-----	-----
➤ Through All Agencies	-----	-----	-----	-----
➤ Through Elected Officials	-----	-----	-----	-----
Link Plan Dev. to Prov/State Govt. (Strategy #2)	-----	-----	-----	-----
➤ Through All Agencies	-----	-----	-----	-----
➤ Through Elected Officials	-----	-----	-----	-----
Link Plan Dev. to Local Govt. (Strategy #2)	-----	-----	-----	-----
➤ Through All Agencies	-----	-----	-----	-----
➤ Through Elected Officials	-----	-----	-----	-----
Plan Implementation L/P/S/F Govt (Strategy #2)	-----	-----	-----	-----
Legislation to Implement (Strategies #1 & 2)	-----	-----	-----	-----

RRBC -- 3 YEAR WORK PLAN

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>Beyond</u>
	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	
• <u>CONFLICT RESOLUTION:</u>				
Assist in Solving Conflicts <i>(Strategy #7)</i>	-----			
➤ Identify Conflict Areas	-----			
➤ Develop Strategies	-----			
➤ Develop Expertise	-----			
• <u>FACILITATION:</u>				
Facilitation to Implement Plan <i>(Strategy #7)</i>	-----			
Facilitate Watershed Approach <i>(Strategy #6)</i>	-----			
Provide Discussion Forums <i>(Strategy # 11)</i>	-----	-----	-----	-----
<u>PARTNERSHIP:</u>				
Enhance Partnership Strategies <i>(Strategy # 3)</i>	-----			
➤ North Chapter-MB	-----	-----	-----	-----
➤ South Chapter-MB	-----	-----	-----	-----
➤ JPB-MN	-----	-----	-----	-----
➤ Build Local Partnerships <i>(Strategy # 3)</i>	-----			
➤ Local Watershed	-----	-----	-----	-----
➤ Local County	-----	-----	-----	-----
➤ Local RM	-----	-----	-----	-----
➤ Local City	-----	-----	-----	-----
Build Prov/State Partnerships <i>(Strategy # 3)</i>	-----			
➤ Elected Level	-----	-----	-----	-----
➤ Agency Level	-----	-----	-----	-----
Build Fed Partnerships <i>(Strategy # 3)</i>	-----			
Develop Basin unified Voice <i>(Strategy # 2)</i>	-----			

RRBC -- 3 YEAR WORK PLAN

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>Beyond</u>
	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	
<u>COMMUNICATION:</u>				
Communicate Basin Plan (Strategy # 4)	-----	-----	-----	-----
➤ Plan Development	-----	-----	-----	-----
➤ Plan Implementation	-----	-----	-----	-----
Communicate Basin Perspectives (Strategy # 8)	-----	-----	-----	-----
Communicate Watershed Planning (Strategy # 6)	-----	-----	-----	-----
Continue Communication Tools				
➤ Quarterly Newsletter	-----	-----	-----	-----
➤ Web Site	-----	-----	-----	-----
➤ Center Reports	-----	-----	-----	-----
➤ Press Releases	-----	-----	-----	-----
➤ Conference Display	-----	-----	-----	-----
 • <u>EDUCATION:</u>				
Educate on RRB Plan Development	-----	-----	-----	-----
Educate on RRB Plan Implementation	-----	-----	-----	-----
On Resource Restoration (Strategy #9)	-----	-----	-----	-----
On Resource Economic Benefits (Strategy #10)	-----	-----	-----	-----
 • <u>ANNUAL CONFERENCE:</u>				
Hold Annually	-----	-----	-----	-----

RRBC -- 3 YEAR WORK PLAN

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>Beyond</u>
	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	
<u>TECHNICAL RESOURCE:</u>				
Identify Technical Resource Needs (Strategy # 5)	-----	-----	-----	-----
➤ Data/Information Needs	-----	-----	-----	-----
➤ Research Needs	-----	-----	-----	-----
➤ Uniform Standards	-----	-----	-----	-----
➤ Modeling Needs	-----	-----	-----	-----
➤ CREP – MN (Strategy # 3)	-----	-----	-----	-----
➤ CREP – ND (Strategy # 3)	-----			
➤ TMDL – F/M (Strategy # 3)	-----			
➤ Buffer Strips Project (Strategy # 3)		-----		
➤ RRIW Planning (Strategy # 3)		-----		
➤ Dredging Study #2 (Strategy # 3)		-----		
➤ Mainstem Model (Strategy # 3)	-----			

Date: August 7, 2003
TO: Metro Subcommittee
FROM: Phil Belfiori
SUBJECT: **Revised Metro Surface Water Management Rules**

Mission of the Metro Surface Water Management Rule (MN Rules 8410) Revision

The goal of the Metro Surface Water Management Rule- MN Rules Chapter 8410 (Rules) revision is to build on BWSR's experience implementing the Metropolitan Surface Water Management program by moving away from an overly prescriptive one-size-fits-all approach to a more result-oriented framework. In essence, future watershed plans would consist of periodically updated inventories and goals, and frequently updated implementation and capital improvement plan sections.

Background of Rule Development Process

In a nine month period from Fall 2001 to Summer in 2002, the Metro Water Planning Rules Advisory Committee (Committee) met five times to complete a rough draft of the updated Rules. This process was temporarily delayed while BWSR proposed legislation to amend MN Statute 103B.201- 103B.255. The relevant statutes were not amended as part of the 2003 legislative session, and therefore it is necessary to reconvene the Committee to complete the Rule revision process.

Where We Left Off...

In their last meeting in June 2002, The Committee agreed on the majority of specific Rule changes needed to assemble a complete initial draft Rules document – see list below. A few issues remain that the Committee initially identified that can only be addressed with Statute changes. The Committee defined their recommend changes in four categories: 1) Plan Content, 2) Plan Development Process, 3) Intergovernmental Coordination, and 4) Organizational Capacity. The following is a brief summary, by category, of the Committee's recommended changes and any remaining unresolved issues:

1) Plan Content – “Building Efficiency Toward Implementation”

A. Rule Change Recommendations:

- “Revolving” plans around priority issues -provides rational for funding.
- More dynamic administrative and capital implementation programs.
- Periodically updated inventories and goals (Ten year plans).
- Frequently updated implementation and capital improvement plan sections.

B. Remaining issues:

- Specific format for incorporating TMDL / 303d

2) Plan Development Process – “Upfront Involvement to Prioritize”

A. Rule Change Recommendations:

- Eliminate obstacles for pursuing local preferences.
- Early announcement of “priority issues” through intensive citizen and agency involvement.
- Better annual reporting to evaluate if implementation achieves local goals.
- More attractive amendment and review procedures.

B. Remaining Issues:

- Streamlining and shortening the plan review process (statute changes)

3) Intergovernmental Coordination – “Connection with Local Land use and State Regulations”

A. Rule Change Recommendations:

- Better link between local comprehensive land use plans and metro water management plans.
- Procedures if local preferences conflict with state standards.

B. Remaining Issues:

- Improving groundwater /surface water interactions (statute change).

4) Organizational Capacity – “Accountability for a Consistent Level of Implementation Metro-Wide”

A. Rule Change Recommendations:

- Increase self-evaluation through development of report card.
- Develop guidelines for determination of non-implementation.
- Allow for alternative reporting methods such as “eLINK”.

B. Remaining Issues:

- No Issues Identified

We look forward to working with you and finishing this exciting effort. Please feel free to contact me if you have any questions.

CC: John Jaschke, BWSR
Steve Woods, BWSR
Ron Harnack, BWSR

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D R A F T

September 9, 2003

MINNESOTA RULES CHAPTER 8415

RULES FOR APPEALS OF WATERSHED DISTRICT
RULES AND PERMIT DECISIONS

8415.0100 PURPOSE.

The rules of procedure in parts 8415.0100 to 8415.0120 govern appeals to the board pursuant to chapter 103D.537.

STAT AUTH: MS § 103D.537

8415.0110 DEFINITIONS.

Subp. 1. **Scope.** The terms used in this chapter have the meanings given them in this part.

Subp. 2. **Board.** "Board" means the Minnesota Board of Water and Soil Resources.

Subp. 3. **Day.** "Day" means a calendar day unless specified otherwise. The day of the event shall not be used in counting any time period.

Subp. 4. **Person.** Person means an individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

41 Subp. 5. **Public Transportation Authority.** "Public Transportation
42 Authority" means a public agency that conducts projects involving
43 transportation facilities open to the public.
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46 STAT AUTH: MS § 103D.537
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51 **8415.0120 APPEALS.**
52

53 Subpart 1. **Appeal of rules.** A. An interested person may appeal a
54 rule made by the managers of a watershed district by filing a
55 petition with the board.
56

57 B. Appeal is effective upon mailing of the petition to the board
58 with evidence that a copy of the petition has been mailed to the
59 watershed district.
60

61
62 Subp. 2. **Appeal of permit decisions.** A. A public transportation
63 authority may appeal a permit decision of a watershed district issued
64 to them by filing a petition with the board.
65

66 B. Appeal is effective upon mailing of the petition to the board
67 with evidence that a copy of the petition has been mailed to the
68 watershed district.
69

70 C. Appeals filed under this subpart shall follow the procedures
71 listed in subpart 3 unless the public transportation authority makes
72 a request in the petition for an expedited appeal hearing. The
73 procedures listed in subpart 4 shall be followed if an expedited
74 appeal hearing is requested in the petition.
75

76
77 Subp. 3. **Board appeal procedures.** A. Within 30 days after
78 receiving the petition, the board or its dispute resolution

79 committee or executive director shall decide whether to grant
80 the petition and hear the appeal. The board or its executive
81 director shall grant the petition unless the appeal is deemed
82 meritless, trivial, or brought solely for the purposes of delay;
83 or that the petitioner has not exhausted all local administrative
84 remedies.

85
86 B. The board or its executive director may stay the watershed
87 district decision until the appeal is resolved.

88
89 C. The board or its executive director may remand the appealed
90 decision back to the watershed district if the petitioner has
91 not exhausted all local administrative remedies such as a public
92 hearing or if the watershed district's record is not adequate.
93 If an appeal is remanded, the watershed district must make a
94 decision within 60 days unless the remand order, or a subsequent
95 order, specifies a longer period.

96
97 D. After granting the petition, the appeal shall be heard by
98 the dispute resolution committee and decided by the board within
99 60 days after the filing of the watershed district's record,
100 submittal of the written briefs for the appeal, and the hearing
101 by the dispute resolution committee. Parties to the appeal are
102 the appellant and the watershed district.

103
104 E. Upon appeal, the watershed district shall forward to the
105 board the record on which it based its decision. The board will
106 make its decision on the appeal after hearing. Thirty days'
107 notice of the hearing shall be given by the board to the
108 parties. The parties may present written and oral argument.
109 When the watershed district has made formal findings
110 contemporaneously with its decision and there is an accurate
111 verbatim transcript of the proceedings and the proceedings were
112 fairly conducted, the board will base its review on the record.
113 Otherwise it may take additional evidence, or remand the matter.

114
115 F. The board will affirm the watershed district's decision
116 if the watershed district's findings of fact are not clearly

erroneous; if the watershed district correctly applied the law, watershed district rule and the watershed district's board approved watershed management plan to the facts; and if the watershed district made no procedural errors prejudicial to a party. Otherwise, the board will reverse the decision, amend it, or remand it with instructions for further proceedings.

Subp. 4. **Expedited board appeal procedures.**

A. A public transportation authority that requests an expedited appeal hearing via a petition filed with the board must include a written brief with the petition. A copy of the petition and written brief must be mailed to the watershed district.

B. The watershed district must file a copy of the record and a written brief with the board and the public transportation authority within ten days of receiving a copy of the petition and written brief.

C. The board or its dispute resolution committee or executive director shall make a decision to affirm the watershed district's decision, reverse it, amend it, or remand it within 30 days of receiving the petition by applying the standard of review in Chapter 8415.0120, subpart 3.F.

STAT AUTH: MS § 103D.537

Comprehensive Local Water Management

Programmatic Changes: Brief overview

What is the task at hand? Develop a process and guidance for updating Local Water Management Plans that reflects the statutory changes enacted during the 2003 Legislative session.

Why were the statutes changed? Primarily because nearly 15 years had passed since the drafting of the Comprehensive Local Water Management Act and many aspects of the program had evolved to the point where statutory and rule requirements hindered progressive planning efforts. Also, reductions in state funds to develop and implement plans strengthened the case for developing focused versus more general plans.

What changed?

- **The program's administrative rules were repealed** via Legislation eliminating the requirements for extensive data collection and assessments.
- **The process has changed to:**
 - **encourage upfront involvement** of local governments and state agencies;
 - **select a few priority concerns** the plan will focus on;
 - replace local and state review of a draft of a complete plan with **review and comment on the priority concerns** selected to be addressed in the plan;
 - emphasize **coordinating efforts** to address the priority concerns identified; and
 - **include a streamlined amendment process.**

~see page 2 for synopsis of the program changes~

What is the desired outcome of the new planning process? Local plans will be focused on priority issues that have been identified collaboratively with local governments, citizens and state agencies; and the plans will result in coordinated implementation of actions to address the priorities.

What is suggested board involvement? Appoint representatives from the three water plan board subcommittees to review and provide input on guidance materials.

What will be the time commitment? Attend one meeting the third week (or early in the fourth week) of November. One follow up meeting prior to the January board meeting.

At this time staff intends to seek board endorsement of the local water management plan guidance materials in January of 2004.

Comprehensive Local Water Management Act (103B.301)

Significant changes in program procedures and policies

<u>Area of change</u>	<u>1986-2003</u>	<u>August 1, 2003 and beyond</u>
Program name	Local Water Planning	Local Water Management
Plan content	Comprehensive (55 data elements/18 assessments)	Focused on priority concerns
Notification list	Local entities only	Local entities and state review agencies.
Agency and local involvement	Comment on completed draft plan.	Provide input at the beginning of the update process.
Midpoint state review	Not required	Review and comment on priority concerns the plan will focus on.
Plan amendments	Process same as plan update	Streamlined process.
Governance	Statute and Rules	Statute and Guidelines



DATE: October 1, 2003
TO: Scott Wiggins, Legislative Coordinator
Office of the Governor
FROM: Ronald D. Harnack, Executive Director *RDH*
SUBJECT: 2004 Legislative Initiatives

The Board of Water and Soil Resources is submitting the following 2004 Legislative Initiatives. Attached you will find the Preliminary Proposal forms for:

- ☐ Continued Authorization, Shoreland Protection Program (103F.225)
- ☐ Administrative Penalty Order (APO) Authority for the Wetland Conservation Act (WCA)
- ☐ Metro Surface Water Management Act Rule Revision
- ☐ Technical Amendments to the Wetland Conservation Act (WCA) Rule, Chapter 8420

Cc: BWSR Executive Team

Bemidji 3217 Bemidji Avenue N. Bemidji, MN 56601 phone (218) 755-4235 fax (218) 755-4201	Brainerd 217 S. 7th Street Suite 202 Brainerd, MN 56401 phone (218) 828-2383 fax (218) 828-6036	Duluth 394 S. Lake Avenue Room 403 Duluth, MN 55802 phone (218) 723-4752 fax (218) 723-4794	Fergus Falls 413 W. Stanton Avenue Fergus Falls, MN 56537 phone (218) 736-5445 fax (218) 736-7215	Marshall 1400 E. Lyon Street Box 267 Marshall, MN 56258 phone (507) 537-6060 fax (507) 537-6368	New Ulm 261 Highway 15 S. New Ulm, MN 56073 phone (507) 359-6074 fax (507) 359-6018	Rochester 40 16th Street S.E. Suite A Rochester, MN 55904 phone (507) 285-7458 fax (507) 280-2875	Saint Paul One West Water Street Suite 250 Saint Paul, MN 55107 phone (651) 282-9969 fax (651) 284-0000
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2004 Legislative Initiative Preliminary Proposal

Legislative Tracking #: _____
(To be assigned by Legislative Coordinator)

Initial: _____
(Forward to Finance for review)

Part I

Submitting Agency or Department: Board of Water and Soil Resources Date: 9/30/2003
Legislative Liaison: Ron Harnack, Executive Director Phone #: 651-296-0878
Agency Contact: Doug Thomas, Assistant Director Phone #: 651-297-5617

Type of Proposal (Cannot be both Technical/Housekeeping and Policy):

☒ Technical/Housekeeping ☐ Policy Impact ☐ Placeholder

Title: (Short Descriptive Title)	Continued Authorization, Shoreland Protection Program (103F.225)
Description and Brief Background: (Clearly explain the proposed initiative and legislative history)	Minnesota Statutes 103F.22, Shoreland Protection Program, was established by the legislature in the 2002 session. The legislation provided authority to the Board of Water and Soil Resources to acquire conservation easements in environmentally sensitive lake and river shoreland areas from private landowners. The legislation included a sunset date of June 30, 2004. This proposal is to repeal the sunset date and make the authorization for this authority and program permanent.
Supporters, Opponents and Possible Controversies:	Supporters of the repeal of the sunset date, include soil and water conservation districts, Minnesota Environmental Partnership, Minnesota Lakes Association, counties, watershed management organizations and other conservation and environmental organizations. We are not aware of any opposition or controversy at this time.
Agency Impact:	The repeal will provide for an additional program authority that will assist the agency in addressing a critical water resource protection issue that has been identified through its comprehensive local water management program.
How does this initiative relate to your agency Strategic Plan?	Repeal of the sunset date and the continued authorization of a state Shoreland Protection Program will meet the agency's strategic objective of providing tools to enable and assist local government and private landowners protect and enhance the quality of our lakes, rivers and streams.

Fiscal Impact: ☐ Yes ☒ No

(If yes, contact your EBO in Finance for further instructions)



Commissioner's Signature



Date

****THIS SECTION TO BE COMPLETED BY THE GOVERNOR'S OFFICE****

The Department of Finance's comments have been reviewed by the Governor's Office and this legislative initiative is approved for drafting.

Governor's Policy Manager

Date

2004 Legislative Initiative Preliminary Proposal

Legislative Tracking #: _____
(To be assigned by Legislative Coordinator)

Initial: _____
(Forward to Finance for review)

Part I

Submitting Agency or Department: Board of Water and Soil Resources (BWSR) Date: 9-29-03

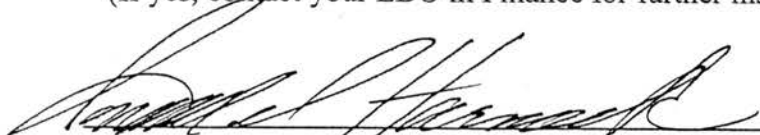
Legislative Liaison: Ron Harnack, Executive Director Phone #: 651-296-0878

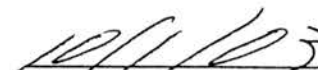
Agency Contact: John Jaschke, Land and Water Section Administrator Phone #: 651-297-3432

Type of Proposal (Cannot be both Technical/Housekeeping and Policy):

☐ Technical/ Housekeeping	☒ Policy Impact	☐ Placeholder
Title: (Short Descriptive Title)		
Administrative Penalty Order (APO) authority for the Wetland Conservation Act (WCA).		
Description and Brief Background: (Clearly explain the proposed initiative and legislative history)		
The proposal would provide a more efficient tool for local governments and BWSR to use to achieve compliance as an alternative to the criminal court system which is now the only available enforcement mechanism. Other state agencies (PCA, Health, Agriculture) have used this authority judiciously and effectively for similar purposes.		
Supporters, Opponents and Possible Controversies:		
Supporters: State Agencies, Counties, Soil and Water Conservation Districts. Opponents: None identified Controversies: Gives additional authority to State and Local Governments		
Agency Impact:		
More efficient program implementation at the state and local levels.		
How does this initiative relate to your agency Strategic Plan?		
The WCA purpose to maintain no-net-loss of the State's Wetlands is a high priority in the agency's plans and operations and is related to high priority efforts in other local, state and federal agency partners.		

Fiscal Impact: ☐ Yes ☒ No
(If yes, contact your EBO in Finance for further instructions)


Commissioner's Signature


Date

****THIS SECTION TO BE COMPLETED BY THE GOVERNOR'S OFFICE****

The Department of Finance's comments have been reviewed by the Governor's Office and this legislative initiative is approved for drafting.

Governor's Policy Manager

Date

2004 Legislative Initiative Preliminary Proposal

Legislative Tracking #: _____
(To be assigned by Legislative Coordinator)

Initial: _____
(Forward to Finance for review)

Part I

Submitting Agency or Department: Board of Water and Soil Resources Date: 9/30/03
Legislative Liaison: Ronald Harnack, Executive Director Phone #: 296-0878
Agency Contact: John Jaschke, Land and Water Section Phone #: 297-3432
Administrator

Type of Proposal (Cannot be both Technical/Housekeeping and Policy):

☒ Technical/Housekeeping ☐ Policy Impact ☐ Placeholder

Title: (Short Descriptive Title)	Metro Surface Water Management Act Rule Revision
Description and Brief Background: (Clearly explain the proposed initiative and legislative history)	Delete MS 103B.231, Subd. 8 to make watershed management plan review more efficient. The subdivision is no longer needed due to current review procedures.
Supporters, Opponents and Possible Controversies:	Metro watershed districts and watershed management organizations support the proposed change as do State Agencies involved and affected by the program (DNR = primary agency). No known opponents.
Agency Impact:	None
How does this initiative relate to your agency Strategic Plan?	Follows the agency strategic plan to simplify procedures.

Fiscal Impact: ☐ Yes ☒ No
(If yes, contact your EBO in Finance for further instructions)


Commissioner's Signature


Date

****THIS SECTION TO BE COMPLETED BY THE GOVERNOR'S OFFICE****

The Department of Finance's comments have been reviewed by the Governor's Office and this legislative initiative is approved for drafting.

Governor's Policy Manager

Date

2004 Legislative Initiative Preliminary Proposal

Legislative Tracking #: _____
(To be assigned by Legislative Coordinator)

Initial: _____
(Forward to Finance for review)

Part I

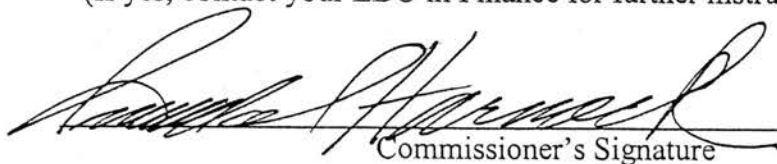
Submitting Agency or Department:	Board of Water and Soil Resources (BWSR)	Date:	9-29-03
Legislative Liaison:	Ron Harnack, Executive Director	Phone #:	651-296-0878
Agency Contact:	John Jaschke, Land and Water Section Administrator	Phone #:	651-297-3432

Type of Proposal (Cannot be both Technical/Housekeeping and Policy):

☒ Technical/
Housekeeping ☐ Policy
Impact ☐ Placeholder

Title: (Short Descriptive Title)	Technical Amendments to the Wetland Conservation Act (WCA) Rule, Chapter 8420.
Description and Brief Background: (Clearly explain the proposed initiative and legislative history)	The proposal would make minor technical amendments to the WCA rule (Chapter 8420) to incorporate minor statute changes made in 2003 and to correct editing errors and omissions.
Supporters, Opponents and Possible Controversies:	Supporters: State Agencies, Counties, Cities, Soil and Water Conservation Districts, Watershed Districts, Landowners, Consultants. Opponents: None identified Controversies: None.
Agency Impact:	More efficient program implementation at the state and local levels.
How does this initiative relate to your agency Strategic Plan?	The WCA purpose to maintain no-net-loss of the State's wetlands is a high priority in the agency's plans and operations and is related to high priority efforts in other local, state and federal agency partners.

Fiscal Impact: ☐ Yes ☒ No
(If yes, contact your EBO in Finance for further instructions)


Commissioner's Signature

10/1/03
Date

****THIS SECTION TO BE COMPLETED BY THE GOVERNOR'S OFFICE****

The Department of Finance's comments have been reviewed by the Governor's Office and this legislative initiative is approved for drafting.

Governor's Policy Manager

Date

FOR YOUR INFORMATION

October 22, 2003

- BWSR "Update"
- Updated BWSR Member Listing
- Updated BWSR Committee Listing, September 25, 2003
- Letter to Ann M. Veneman, USDA Department of Agriculture, from Governor Pawlenty regarding Minnesota's proposal requesting funding through the Conservation Reserve Enhancement Program (CREP) for three targeted watersheds in Minnesota.
- "Agri News" Article, dated October 9, 2003, regarding "Nash knows about Chippewa ditches"
- News Release regarding "Fillmore County Uses Unique Natural Resource Protection Tool"
- USDA Release: "USDA Reallocates Nearly \$60 Million of Farm Bill Funds for Conservation on Private Working Lands"



Board of Water and Soil Resources

U ♦ P ♦ D ♦ A ♦ T ♦ E

A publication of the Minnesota Board of Water and Soil Resources

October 2003

SOUTH

There continues to be quite a bit of interest and progress in southwestern Minnesota with open tile intake replacement. Two types of replacement have been implemented. One utilizes a pea rock trench for infiltration, the other is a dense pattern tile system with no pea rock. Both systems seem to function well from a landowner perspective, and more research may demonstrate actual water quality benefits. To date, about 1,200 intakes have been successfully replaced with one of these two systems. Average costs for the pea rock system are around \$240, and the pattern tile is about \$550. Surveys and landowner follow-up as well as repeat customers indicate that from a crop production standpoint these systems are functioning well. As counties have waiting lists for this practice, they continue to look for sources of funding to get the job done.

-Submitted by Tabor Hoek



Tile intake, Sleepy Eye Creek subwatershed

The Chippewa River Watershed Project (CRWP) is embarking on a new and innovative marketing strategy for installing riparian buffer strips to improve water quality. The "Filters for the Future" program encourages high school students interested in agriculture and the environment to work with local landowners to plant vegetative buffer strips along streams and ditches. Local students working under the "Filters for the Future" program will recruit farmers willing to establish filter strips on their land.

The Chippewa River Watershed Project will provide \$100 to the student organization for every filter strip signed up and established under a Conservation Reserve

Program contract. Each student organization is limited to five contracts for a total of \$500 per organization. Farmers will receive payments according to CRP guidelines plus a \$50/acre incentive bonus from the Chippewa River Watershed Project. Farmers and students working together can make an outstanding contribution to future water quality improvement and provide a unique educational experience for our future generation.

This program is being launched in the East Branch Chippewa River, a priority sub-basin of the Chippewa River Watershed. Monies from a 319 Federal Implementation Grant for this sub-basin are being used to administer the "Filters for the Future" program. The CRWP will target students involved in organizations such as Future Farmer of America and 4-H as potential participants. Students will then be introduced to conservation professionals from the local Natural Resources Conservation Service (NRCS) and the Soil and Water Conservation District (SCWD). The Chippewa River Watershed Project will help to connect all the participants and oversee the details of the "Filters for the Future" project.

According to program organizers, the program has great potential for promoting conservation education among high school students, providing an opportunity for connecting generations, offering financial assistance, and ultimately improving water quality in the East Branch Chippewa River Watershed. It is hoped that this program can be replicated throughout the remaining sub-basins of the Chippewa River Watershed. For more information, call the Chippewa River Watershed Project at 320-269-2139, x120.

-Submitted by Jennifer A. Churchill, Chippewa River Watershed Project

LAND & WATER

The goal of the Metro Surface Water Management Rule, MN Rules Chapter 8410, revision is

to build on BWSR's experience implementing the Metropolitan Surface Water Management program by moving away from an overly prescriptive, one-size-fits-all approach to a more result-oriented framework. In essence, future watershed plans would consist of periodically updated inventories and goals, and frequently updated implementation and capital improvement plan sections.

In a nine-month period from fall 2001 to summer 2002, the Metro Water Planning Rules Advisory Committee met five times to complete a rough draft of the updated rules. This process was delayed temporarily when BWSR was going to propose legislation to amend MN Statutes 103B.201- 103B.255. The relevant statutes were not amended as part of the 2003 legislative session, and therefore it is necessary to reconvene the committee to complete the rule revision process.

At its last meeting in June 2002, the committee agreed on the majority of specific rule changes needed to assemble a complete initial draft rules document (see list below). A few issues remain that the committee initially identified that can only be addressed with statute changes. The committee defined its recommended changes in four categories: 1) Plan Content, 2) Plan Development Process, 3) Intergovernmental Coordination, and 4) Organizational Capacity. The following is a brief summary, by category, of the committee's recommended changes and any remaining unresolved issues:

1) Plan Content – “Building Efficiency Toward Implementation”

Rule Change Recommendations:

- “Revolving” plans around priority issues, provides rational for funding.
- More dynamic administrative and capital implementation programs.
- Periodically updated inventories and goals (10-year plans).
- Frequently updated implementation and capital improvement plan sections.

Remaining Issues:

- Specific format for incorporating TMDL / 303d.

2) Plan Development Process – “Upfront Involvement to Prioritize”

Rule Change Recommendations:

- Eliminate obstacles for pursuing local preferences.
- Early announcement of “priority issues” through intensive citizen and agency involvement.
- Better annual reporting to evaluate if implementation achieves local goals.
- More attractive amendment and review procedures.

Remaining Issues:

- Streamlining and shortening the plan review process (statute changes).

3) Intergovernmental Coordination – “Connection with Local Land use and State Regulations”

Rule Change Recommendations:

- Better link between local comprehensive land use plans and metro water management plans.
- Procedures if local preferences conflict with state standards.

Remaining Issues:

- Improving groundwater /surface water interactions (statute change).

4) Organizational Capacity – “Accountability for a Consistent Level of Implementation Metro-Wide”

Rule Change Recommendations:

- Increase self-evaluation through development of report card.
- Develop guidelines for determination of non-implementation.
- Allow for alternative reporting methods such as eLINK.

Remaining Issues: None.

NORTH

WCA

Dale Krystosek has been working with the DNR and

Pheasants Forever on identifying wetland mitigation sites to utilize the \$123,000 restitution paid by Arnold Ruther for the large Wetland Conservation Act (WCA) violation and conviction in Otter Tail County. They have narrowed it down to two potential sites in Otter Tail County that will result in restoration of at least 28.4 acres of wetlands. BWSR is working with Pheasants Forever, the DNR, the Otter Tail County Attorney, and the courts to complete the mitigation agreement.

Dale is working with Itasca County to ensure that proper wetland mitigation occurs to replace the lost wetland functions and values at the Enbridge Oil spill in Itasca County (250,000 gallons of crude oil spilled, impacting 11.2 acres of type 6 and 7 wetlands). Dale is assisting with identification of mitigation sites and coordination with U.S. Fish and Wildlife Service, MPCA, and the DNR, as well as assisting Itasca SWCD and the DNR in running MNRAM 3.0 on the impact site to assess loss of wetland functions.

Dale initiated a WCA audit of Lake of the Woods County where concerns have been raised regarding several major wetland violations in the county. The effort is being coordinated with Traci Hanson, Wetland Enforcement Officer.

WETLAND BANKING

John Overland reports that approval was recently received for two road replacement banking projects. The Stearns County site is expected to result in 78 acres of new wetland credit and 62 acres of native prairie/oak savanna upland buffer. The Traverse County site is expected to result in 32 acres of new wetland credit and 33 acres of native upland buffer.

WATERSHED DISTRICTS

Brian Dwight has completed long range planning projects with the Wild Rice Watershed District (WD) and Bois De Sioux WD and will now focus his efforts on finishing the plans of the Two Rivers WD and Roseau WD.

Brian and the Red Lake WD have nearly completed Phase One, hydro model development, of the planning effort of the district. They have met to strategize the

approach to Phase Two. Phase Two is the development of the citizens and technical advisory committees, followed by public involvement in problem identification and prioritization. Brian and the WD are also easing into the natural resource inventory and assessment of the WD, which can be a very contentious issue. They have met with small groups of board members to discuss the necessity to do this assessment and its inclusion in the plan. Brian met with the full board at the end of September.

Brian has been working with Jody Horntvedt, Red River Basin Project team facilitator, to develop a concept paper describing an 18-month multi-session training for WD, SWCD, and county board members on local leadership in water management. Ron Harnack presented this to the FDR WG spending committee and generated support. The next step is to further develop the program and pursue funding support.

OTHER

For the last 18 months, Dale Krystosek has worked with Natasha DeVoe and the inter-agency team in development of the new computerized version of Minnesota Routine Assessment Method (MNRAM) for evaluating wetland functions and values. In August, Dale and John Overland presented MNRAM 3.0 training in Brainerd, Bemidji, and Cloquet to approximately 80 LGU and agency staff and consultants.

John is coordinating the implementation of the MN-GP-02 between the BWSR and Corps of Engineers. This new programmatic General Permit is expected to be issued by January 2004.

Dan Steward reports that September saw the Crow Wing SWCD board deal with two "big-box" development proposals that had been in the works all summer. First, the board approved a minimized Cragun's project proposal for the 40-acre tract on Highway 371 North, adjacent to the arboretum. The site has 15 acres of wetlands scattered throughout and is in one of the hottest development corridors in northern Minnesota. Being located adjacent to the learning center added further scrutiny. In the end, the developer was sequenced from a proposed seven acres with off-site replacement, down to three acres of impact with 2/3 of the replacement done on site. In addition, the developer worked with the nature center to develop a plan that will result in

Board of Water and Soil Resources Update, Page 4

coordinated trails connecting the nature center's trails with trails around the avoided on site wetlands. The nature center passed a resolution supporting the project and noted its improvement over previous proposals for the site.

On Sept. 16, the SWCD board acted to approve a de minimis exemption for 9,000 square feet of impact for the WalMart site, also in the city of Baxter. Interestingly, the WalMart site attracted much more scrutiny and opposition than the Cragun site. A local "smart growth" group hired an attorney, and with the Perch Lake Association attended both the TEP and SWCD board meeting to testify against granting the exemption. After lots of testimony, the board voted 3-1 to approve the exemption. This marks the board's involvement in at least four large big-box development projects in Baxter (Home Depot, Menard's, Cragun's, and WalMart). In my opinion, the board has done a good job of relying on its TEP panel to help them avoid, minimize, and replace for wetland impacts resulting from major development projects located on prime commercial property.

-Submitted by Ron Shelito

ENGINEERING

The NRCS state office conducted several workshops in central and southern Minnesota at the end of

September to certify professional engineers in the manure storage and feedlot runoff components of Comprehensive Nutrient Management Plans (CNMPs). A key purpose was to encourage more private (and public) engineers to register via TechReg as technical service providers (TSPs). This workshop fulfilled the TechReg requirements for NRCS Level 1 and 2 wastewater and feedlot runoff training, which addresses these components of CNMPs. Al Kean, chief engineer, attended one of the sessions, as did a number of SWCD joint powers engineers, who will need to register via TechReg to be public agency TSPs for engineering of EQIP practices.

It sounds like up to a third of SWCDs signed Contribution Agreements with NRCS to be TSPs for EQIP practices, some with engineering assistance to be provided by their Nonpoint Engineering Assistance joint powers staff. I have been unable to get a summary of the federal FY 03 TSP funding that was allocated to various SWCDs or to private TSPs. It sounds like we'll have to wait until some kind of information is released from

NRCS national headquarters. Recall that public TSPs can receive 50 percent of the federal Not-To-Exceed rates. Because these rates are quite low for many conservation practices, it's expected that the primary practices for which SWCDs and NPEA staff will serve as TSPs are for feedlots.

The Feedlot and Manure Management Advisory Committee officially sunsetted in state statute at the end of FY 03. However, the committee has continued to meet at the suggestion of MPCA and other members, to help advise implementation of the federal Confined Animal Feeding Operation (CAFO) rules in Minnesota, and to provide a continued forum for feedlot information sharing. At a FMMAC meeting in late September, MPCA staff indicated that their CAFO rule integration recommendations would incorporate FMMAC advice to minimize changes to the existing Minnesota rule. Hopefully, the federal CAFO Rule will help level the playing field for the livestock industry across the U.S. Minnesota's feedlot rule is substantial compared to many other states.

In other feedlot news:

- Al and others are assisting MPCA staff develop feedlot filter strip guidance to help front line regulators and technical assistance providers select the most appropriate level of feedlot runoff control, in conjunction with NRCS practice standard 784 – Wastewater and Feedlot Runoff Control.
- The U of M is leading a 319 grant proposal to further demonstrate manure nutrient management at the field level and provide associated information/education. The U has done substantial feedlot rule and nutrient management training via previous 319 grants.
- MPCA and the U of M intend to submit a 319 proposal to update the Feedlot Evaluation (FLEval) model to better address annual nutrient loadings and ground water, and to generally update the model, which was developed in the early 1980s.
- MPCA and BWSR recently met with NRCS to discuss EQIP use for Open Lot Agreement feedlots (< 300 animal units), which require 50 percent fix by October 2005 and 100 percent by October 2010. EQIP no longer allows partial fixes for dirty water practices. All feedlots using EQIP must have a CNMP prepared. However, clean water diversions, such as channels and rain gutters, can be done as stand-alone practices via EQIP.

Minnesota River CREP wetland restoration news:

- SWCDs, BWSR, numerous construction contractors,

Board of Water and Soil Resources Update, Page 5

and others continue to work hard to construct as many wetland restorations as possible this calendar year. We expect the total constructed by the end of 2004 to be more than 275 projects.

- Unfortunately for us, Bruce Wilken, wetland restoration technician in our temporary Montevideo office, recently took a new job with Ducks Unlimited in northwest Minnesota. As a result, we're doing some workload shifting and looking at alternatives for additional short-term surveying, design, and construction assistance.

- After crops were taken off some of the most recent CREP wetland restoration project lands, BWSR and SWCD staff moved in to complete surveying.

- Eric Mohring, groundwater specialist, has been helping Greg Larson conduct soil borings for a number of wetland restoration projects.

- SWCDs and BWSR are still encountering differing CRP payment interpretations in some Minnesota River counties that could substantially restrict or prevent some wetland restorations. BWSR staff is working with FSA to resolve.

- Tom Wenzel, senior wetland restoration engineer, has increased coordination with drainage authorities to help secure their approval for a number of wetland restoration projects on drainage systems. Face-to-face meetings have been necessary to adequately explain plans and build trust.

News from the Lake Superior Basin:

- The DNR, which administers the Minnesota Coastal Program, is talking to Lake Superior SWCDs, BWSR, and MPCA about possible funding assistance to accelerate SWCD involvement in coastal nonpoint pollution control. No projects have yet been defined, but this is a good development.

- Several BWSR staff members are accelerating involvement in a partnership to resolve NOAA and EPA conditions on approval of the Minnesota Coastal Nonpoint Pollution Control Program.

- Gene has been providing some assistance to the So. St. Louis SWCD and U of M to implement a pervious pavement, stormwater treatment, and shoreline stabilization project at the Glensheen mansion, funded by Great Lakes Commission grants. However, contractor bids were high, necessitating some changes.

Al recently attended the second annual STREAMS conference that had a focus on stream protection and restoration, for both urban and rural streams. Some

topics addressed included the vertical and horizontal stability of channels in urban and agricultural watersheds, and the value of floodplain flow and watershed runoff control for water quality treatment and channel stability. Ohio State University, U of M, and other researchers are investigating the benefits of 2-stage channels for drainage ditches. The Coon Creek watershed in southwest Wisconsin, and Whitewater River watershed in Minnesota, were subjects of a retrospective on the effects of changing agricultural practices and conservation on erosion, sedimentation, and stream dynamics.

-Submitted by Al Kean

BRIEFS

Two existing wetlands in Fillmore County have been protected from future impacts, thanks to a voluntary agreement landowners have made with the county and the Minnesota Board of Water and Soil Resources.

The Wetland Conservation Act, Minnesota's wetland protection law, allows a county or watershed district to enroll existing wetlands located in areas that are both high priority regions (counties that have lost 50 percent or more of their pre-settlement wetland acres) and high priority areas (which are identified in local water management plans) into a "wetland preservation area." Fillmore County is the first county in the state to use this natural resource protection tool.

The first enrolled wetland in Fillmore County is located on Gary and Deb Anderson's land in Sumner Township. It has 5.5 acres of wetland and 3.3 acres of buffer. The second is on land owned by Dennis Severson. That wetland preservation area, located in Chatfield Township, has 1.4 acres of wetland and 1.9 acres of buffer.

Fillmore Soil and Water Conservation District coordinates the program in the county. According to Jeremy Maul, GIS technician for the conservation district, the county became involved for two reasons. "We wanted to help preserve our remaining wetlands and provide an extra incentive to enrollees," he said.

The Severson wetland preservation area is located on the Decorah Shale outcropping, a groundwater recharge zone that occurs in southeastern Minnesota. The wetland acts as a filter for an important source of groundwater for the area, according to Maul.

Board of Water and Soil Resources Update, Page 6

A landowner who enrolls in the program signs a restrictive covenant, which prohibits him or her from developing the land or restoring the landscape, unless it is done for habitat or natural-resource improvement purposes. In turn, a landowner is exempt from paying property taxes on that piece of land. Once in the program, a landowner has to manage the wetland and surrounding area with sound soil conservation practices to prevent excessive soil loss and control invasive weeds.

Participation in the program by counties or watershed districts is optional, according to Maul. If a county chooses to accept applications, the Department of Revenue (DOR) reimburses a county for lost tax revenue; the actual amount is based on a DOR formula.

Once a WPA is enrolled, it is considered permanent unless and until a landowner initiates a request for termination. If a termination is requested, the landowner has to wait at least eight years to be released from the restrictive covenant.



Saying clean water is the "crown jewel" of Minnesota's great outdoors, Governor Tim Pawlenty proposed a quarter billion dollar initiative to set aside 100,000 acres of land near environmentally sensitive waterways.

The Governor's proposal, the centerpiece of his clean water initiative unveiled in June, would expand the Conservation Reserve Enhancement Program (CREP) in Minnesota to dramatically reduce runoff into the state's rivers, streams, wetlands, and groundwater.

"Minnesota is the land of lakes and the region of rivers – water is our way of life," said Governor Pawlenty. "We have more fresh water than any other state in the continental United States. Protecting and restoring this crown jewel of our quality of life should be our number one environmental priority."

The next phase of CREP in Minnesota will target three areas of the state, the Governor said. The proposal focuses on restoring 42,500 acres in the Red River Watershed in the northwest, 42,500 acres in the Lower Mississippi Watershed in the southeast, and 15,000 acres in the Missouri River Watershed in southwest Minnesota.

"After witnessing the algae that pervades the waters in

the southeast, the soil erosion that harms the Red River in the northwest, and the deteriorating wetlands that jeopardize wildlife in southwest Minnesota, it was clear that all three of these areas need help," Governor Pawlenty said. "I am pleased that moving forward with the CREP initiative will allow us to begin restoring these lands and significantly improve the quality of water, soil, and wildlife."

CREP is a voluntary federal-state-local program that works with farmers and ranchers to set aside marginal agricultural lands along waterways to enhance wildlife habitats, improve water quality, reduce erosion and sedimentation, and reduce the impacts of recurrent flooding.

Once the U.S. Department of Agriculture (USDA) has received Minnesota's proposal, the final details will be negotiated and agreed upon by both the state and the USDA. Farmers can begin voluntarily signing up to put their land in the program as early as March 2004. Landowners will have the choice of a 35-year or perpetual easement.

The program combines the federal Conservation Reserve Program with Minnesota's Reinvest in Minnesota Reserve Program to fund the conservation of the 100,000 acres of land, the maximum allowable under the federal program. Nearly \$200 million in federal money combined with \$46 million from the state will fully fund the effort. Governor Pawlenty has committed to seeking \$23 million in funding for the CREP program in both the 2004 and 2006 bonding bills.



After a seven-year career with BWSR, Phil Belfiori is leaving the agency and will join Emmons & Olivier, a metro engineering consulting firm. His last day with BWSR was Oct. 21. Phil will be a senior planner for EOR. Best wishes, Phil!

*Deadline for next edition:
December 10*

MINNESOTA BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET, SUITE 250
ST. PAUL, MINNESOTA 55107
Phone: 651-296-3767
Fax: 651-297-5615

<u>Appointed Members</u>	<u>Appointment Designation</u>	<u>Term Expires</u>	<u>Telephone/Fax</u>	
Jerome Deal, Chair , 1501 Second Ave., So. Wheaton, 56296 bdswd@traversenet.com	Watershed	01-02-06	320-563-8377 320-563-4194	Home Fax
Kay Cook , 20783 Eastway Court Richmond, 56368 neilkay@cloudnet.com	Watershed	01-01-07	320-597-2794	Home Fax
Jack Frost , 2324 Maple Lane Maplewood, 55109 jack.frost@metc.state.mn.us	Watershed	01-05-04	651-602-1078 651-602-1130	Office Fax
Karen Harder , 4601 Emerson Ave. S. Minneapolis, 55409-2339 kt harder@efg.com	Citizen	01-03-05	612-824-4136 612-824-4312	Home Fax
Char Kahler , 1966 50 th St. Fairmont, 56031 chark@kaco.net	Citizen	01-05-04	507-235-9837 507-238-2244 507-235-9619	Home Office Fax
Randy Kramer , 42808 Co. Rd. 11 Bird Island, 55310 randyk@willmar.com	Citizen	01-01-07	320-365-3094 320-365-4784	Home Office Fax
Paul Krabbenhoft , 1119 - 25th Avenue South Moorhead, 56560 pkrabbenhoft@yahoo.com	SWCD	01-02-06	218-233-0313 701-281-3033 701-277-1570 701-799-0369	Home Office Fax Cell
Victor Ormsby , 32063 Wiscoy Co-op Lane Winona, 55987-9515	SWCD	01-03-05	507-454-7676	Home
Dwain Otte , 606 Zanmiller Drive West Northfield, 55057 dnotte@rconnect.com	SWCD	01-05-04	507-645-4370	Home
Kevin Anderson , 294 State Hwy. 30 Lake Wilson, 56151 andersoncountycommissioner@hotmail.com	Co. Comm.	01-03-05	507-879-3198	Home Fax
Quentin Fairbanks , 16374 Stoner Memorial Dr., NE Hines, 55647 quentin@paulbunyan.net	Co. Comm.	01-01-07	218-679-2202 218-835-4184 218-679-3378	Home Office Fax
Clair Nelson , Lake County Courthouse, 601 Third Avenue, Two Harbors, 55616 Wilma.rahn@co.lake.mn.us	Co. Comm.	01-02-06	218-353-7385 218-834-8320 218-834-8360	Home Office Fax
<u>State Agency Members:</u>				
Perry Aasness 90 W. Plato Blvd., St. Paul, MN 55155 Perry.Aasness@state.mn.us	Department of Agriculture		651-296-4435 651-297-5522	Office Fax
Dan Wilson Well Management Section, P.O. Box 64975, St. Paul, MN 55164-0975 Daniel.Wilson@health.state.mn.us	Department of Health		651-215-0812 651-215-0978	Office Fax
Gene Merriam 500 Lafayette Road, St. Paul, MN 55155 Gene.Merriam@state.mn.us	Department of Natural Resources		651-296-2549 651-296-4799	Office Fax
Jim Anderson 439 Borlaug Hall, 1991 Upper Buford Circle, St. Paul, MN 55108 Ander045@umn.edu	U of M/Dept. of Soil, Water & Climate		612-625-0279 612-625-2208	Office Fax
Lisa Thorvig 520 Lafayette Road, St. Paul, MN 55155 Lisa.Thorvig@pca.state.mn.us	Pollution Control Agency		651-296-8811 651-296-6334	Office Fax

BOARD OF WATER AND SOIL RESOURCES COMMITTEES

September 25, 2003

ADMINISTRATIVE ADVISORY COMMITTEE

Membership: Jerome Deal, chair watershed district
Char Kahler, vice-chair citizen
Clair Nelson county commissioner
Dwain Otte soil and water conservation district
Kay Cook 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 legislation and budgets. 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
Char Kahler citizen
Randy Kramer citizen
Kevin Anderson county commissioner
Paul Krabbenhoft soil and water conservation district
Victor Ormsby soil and water conservation district
Jack Frost watershed district
Perry Aasness Department of Agriculture
Lisa Thorvig Pollution Control Agency
Wayne Zellmer staff support
Farm Service Agency
Minnesota Association of Conservation District Employees
Minnesota Association of Soil and Water Conservation Districts
Natural Resources Conservation Service

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 two 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: Jerome Deal, chair watershed district
Karen Harder citizen
Char Kahler citizen
Clair Nelson county commissioner
Dwain Otte soil and water conservation district
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 and permit decision 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: Kay Cook, chair watershed district
Quentin Fairbanks county commissioner
Paul Krabbenhoft soil and water conservation district
Victor Ormsby soil and water conservation district
Jack Frost watershed district
Wayne Edgerton Department of Natural Resources
Jim Anderson Minnesota Extension Service
Ron Struss staff support, Minnesota Extension Service
Peter Raeker 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 twice 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 – Paul Krabbenhoft; south – Char Kahler; metro – Karen Harder

North (4)	South (4)	Metro (3)
Paul Krabbenhoft - SWCD, Chair	Char Kahler - CIT, Chair	Karen Harder - CIT, Chair
Quentin Fairbanks - CC	Randy Kramer - CIT	Dwain Otte - SWCD
Clair Nelson – CC	Kevin Anderson – CC	Jack Frost - WD
Jerome Deal – WD	Victor Ormsby - SWCD	Lisa Thorvig - PCA
Kay Cook - WD	Perry Aasness – MDA	Jim Anderson - MES
Wayne Edgerton - DNR	Dan Wilson - MDH	Steve Woods, staff support
Ron Shelito, staff support	Jeff Nielsen, staff support	Jim Haertel, 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 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>	Clair Nelson, chair	county commissioner
	Karen Harder	citizen
	Char Kahler	citizen
	Randy Kramer	citizen
	Dwain Otte	soil and water conservation district
	Kay Cook	watershed district
	Jack Frost	watershed district
	Perry Aasness	Department of Agriculture
	Wayne Edgerton	Department of Natural Resources
	John Jaschke	staff support
	Association of Minnesota Counties	
	Minnesota Association of Watershed Districts	
	Minnesota Association of Soil and Water Conservation Districts	
	Natural Resources Conservation Service	
	U.S. Army Corps of Engineers	

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 twice 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 shall 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
- ☐ U.S. Army Corps of Engineers (USCoE)



STATE OF MINNESOTA

Office of Governor Tim Pawlenty

130 State Capitol ♦ 75 Rev. Dr. Martin Luther King Jr. Boulevard ♦ Saint Paul, MN 55155

October 13, 2003

The Honorable Ann M. Veneman
United States Department of Agriculture
14th Street and Independence Southwest
Administration Building
Washington, DC 20505

Dear Secretary Veneman:

I am pleased to enclose Minnesota's proposal requesting funding through the Conservation Reserve Enhancement Program (CREP) for three targeted watersheds in Minnesota.

This proposal represents the integration of three individual proposals developed by local coalitions in the three watersheds to enhance water quality, reduce sedimentation, reduce the impact of recurrent flooding, enhance wildlife, and protect public water supplies. The coalitions included citizens, local government, and sporting, agriculture, environmental and conservation organizations. Our administration is requesting the maximum allotment of 100,000 acres for these areas to achieve priority outcomes and is committed to the 20 percent non-federal match that the program requires.

We have achieved great success with Minnesota's first CREP which targeted the Minnesota River. The success reflects the unique partnership between USDA, the State of Minnesota, local governments, conservation groups and farm organizations.

That same spirit of cooperation and partnership exists in the three proposed targeted areas. I held public meetings in each of these areas to listen to the proposals and get perspectives from local governments, citizens, and diverse interest organizations. Clearly, each of the targeted areas is ready, willing, able, and extremely excited about the projects that can be made with this initiative.

The Honorable Ann M. Veneman
Page Two

In June, my administration outlined a plan for Minnesota's water resources which outlined five guiding principles:

- * Focus and alignment on priorities
- * Use a watershed approach
- * Apply individual solutions
- * Cooperation is essential
- * Keep working lands working

This CREP initiative is uniquely structured to advance these principles. I am convinced that if we are going to sustain both our strong agricultural economy and our delicate natural resources, we need to develop partnerships which can address federal, state and local objectives simultaneously. Minnesota's RIM Reserve Program is one of the most successful and unique state conservation programs in the country and serves as a national model showing how a state can play a significant role in addressing agricultural conservation. The proposal we submit today recognizes Minnesota's proactive conservation approach and advances the mutual interests of our state and the federal governments.

The unique priorities of the three areas are reflected in our proposal. We will blend enhanced elements of the CRP with our RIM Reserve easement program to try some new and innovative approaches while utilizing CREP's tried and true components to achieve common federal, state, and local priority conservation objectives.

My desire is to kick-off the Minnesota CREP with a sign-up late this fall and begin full implementation in earnest next spring. I urge your approval of the Minnesota CREP proposal of 100,000 acres.

Thank you for your consideration of this proposal for Minnesota's second generation CREP. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Pawlenty', written over a horizontal line.

Tim Pawlenty
Governor



STATE OF MINNESOTA

OFFICE OF GOVERNOR TIM PAWLENTY

130 State Capitol ♦ Saint Paul, MN 55155

APPLICATION

Minnesota's Conservation Reserve Enhancement Program: The Second Generation

Overview

USDA and the State of Minnesota have initiated a \$226 million Conservation Reserve Enhancement Program (CREP) to restore 100,000 acres of environmentally sensitive land in three targeted watersheds. Enrollment goals are 42,500 acres in the Red River Watershed in northwestern Minnesota, 42,500 acres in the Upper Mississippi Watershed in southeastern Minnesota, and 15,000 acres in the Missouri River Watershed in southwestern Minnesota.

CREP, administered by the Farm Service Agency (FSA) and the Board of Water and Soil Resources, in cooperation the USDA Natural Resources Conservation Service, Soil and Water Conservation Districts, and Watershed Districts, uses federal and state resources through the Conservation Reserve Program (CRP) and Reinvest in Minnesota Program (RIM) to meet state-specific environmental objectives and to protect environmentally sensitive land.

Under CREP, landowners voluntarily enroll in a 14 to 15 year CRP contract and RIM easement of 35 years or perpetual in duration. Landowners seeking to enroll in CREP must enroll in both CRP and RIM. Enrollment in both programs is made at the same time at the local SWCD and FSA offices. In CREP, landowners must convert environmentally sensitive cropland to native grasses, trees and other conservation practices to improve water quality, soil, and wildlife habitat. CREP provides both land rental and easement payments and cost-share assistance.

Benefits

CREP provides significant water quality, water storage, and wildlife benefits. When fully implemented, it protects lakes and waterways as well as substantially reduces field runoff of sediment, agricultural chemicals, and nutrients. CREP will also increase the water storage capacity of the watersheds through wetland restoration. Restoring native vegetation will increase natural diversity and the population of many species, primarily grassland birds.

Goals

The goals of the Minnesota CREP are to enroll 100,000 acres of environmentally sensitive land in the targeted wetlands to:

- Reduce sediment loading in the three targeted watersheds by 420,000 tons per year.
- Reduce phosphorus loading in streams and rivers by 530,000 pounds per year.
- Establish 45,500 acres of riparian buffers; this will protect 2,000 linear miles of streams, rivers, and ditches.

- Enroll 6,500 acres of land in sensitive groundwater areas; this will help protect the drinking water supplies used by 500,000 people.
- Restore 30,000 acres of wetland and associated upland; in addition to water quality and wildlife benefits, wetland restorations will increase water storage capacity of the targeted watersheds by 10,000-20,000 acre feet.
- Establish 100,000 acres of long-term wildlife habitat in the targeted watersheds for the preservation of natural diversity of Minnesota's biological resources, including threatened and endangered species associated with riparian and wetland habitats.
- Acreage target in a watershed may be adjusted after two years based on landowner interest and priority needs in each watershed.

Program Costs

Based on the full implementation of the Minnesota CREP, which projects an enrollment of 100,000 acres, the expected combined financial federal and state obligation would be approximately \$226 million. Of that amount, \$180 million will come from USDA and \$46 million will come from state and local sources. This does not include any costs that may be assumed by producers. USDA's share of the total program costs is approximately 80 percent; Minnesota's share is 20 percent.

CREP Implementation

The Minnesota CREP partners will begin implementation in the three targeted watersheds immediately upon receiving approval from USDA.

Early enrollment may begin in late 2003 or early 2004. Full implementation will begin in mid-2004 and continue through December 31, 2007, the deadline for Minnesota's CREP agreement.

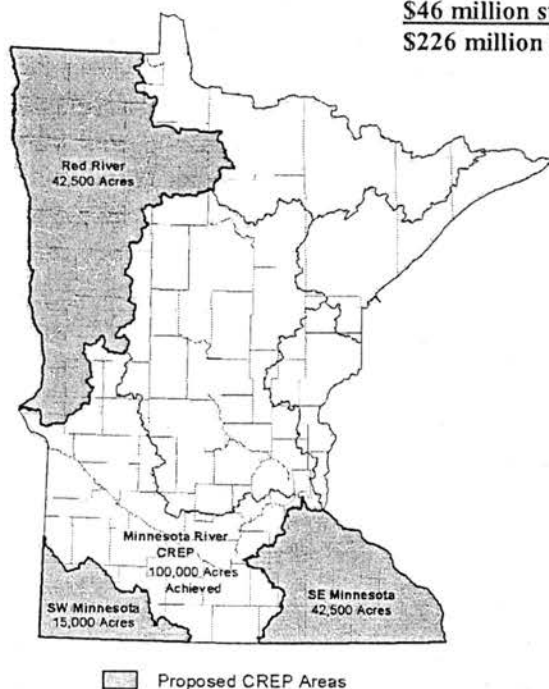
CREP Payments

Minnesota CREP participants are eligible for five types of *federal payments*:

- The normally calculated CRP annual rent payment, plus;
- A CREP annual rent incentive bonus equal to 50 percent of the annually calculated rent payment, plus;
- A one-time signing incentive of \$10 per acre per year based on the contract length (14 or 15 years), plus;
- The maximum allowable eligible maintenance payment, which is \$5-\$10 per acre.

Minnesota CREP Application: The Second Generation

\$180 million fed.
\$46 million state
\$226 million total



CREP Application: Page 3

- In addition, 50 percent of the reimbursable costs to establish CREP conservation practices, plus a 40 percent Practice Incentive Payment will be paid for all CREP conservation practices.

CREP participants are eligible for two types of *state payments*:

- A one-time payment for a conservation easement. This payment is made soon after the easement is processed. The amount of payment is based on a percentage of the assessor's estimated deeded value of property in the township of enrollment and the easement length, which are 35 year and perpetual in duration. By Minnesota law, RIM easements for wetland restorations must be perpetual.

Examples of easement payment rates in each of the three targeted watersheds are:

SE Minnesota	35 year=\$312/ac; perpetual=\$397/ac.
NW Minnesota	35 year=\$105/ac; perpetual=\$134/ac.
SW Minnesota	35 year=\$264/ac; perpetual=\$336/ac.

- The remainder of the cost to install CREP conservation practices, not to exceed 100 percent.

For example, if the normal cropland rental rate is \$100 per acre, the incentive rate for CREP would be an additional 50 percent or \$150 per acre, and the maintenance would be (at least) \$5 per acre yielding an annual payment for 15 years of \$155 per acre. The applicant would also receive a one-time signing bonus up to \$150 per acre (\$10/acre x 15 years). In addition, Minnesota would provide a one-time payment for a conservation easement. For an easement of 35 years in duration (using the above examples), this easement payment would range from \$105 to \$312 per acre.

In most cases, the costs to install CREP conservation practices are paid by the federal and state government. Thus, applicants should have minimum out-of-pocket costs to enroll land in CREP.

Eligible Acres

Landowners can offer eligible land within the three watershed areas. To be eligible for CREP, the applicant must satisfy the basic eligibility for CRP and RIM. Eligible land is:

- Cropland (including field margins) that has been planted, is planted or considered planted to an agricultural commodity 4 of the previous 6 crop years from 1996 to 2001, and which is physically and legally capable of being planted in a manner normal to an agricultural commodity; and
- Owned or operated for at least 1 year prior to enrollment.

Persons who have an existing CRP contract or an approved offer with a contract pending are eligible to convert those contracts to a CREP agreement. Enrollment for CREP will be on a continuous basis beginning with a sign-up period to be announced at a future date. Eligible parcels of 120 acres or less are automatically enrolled. Larger parcels are subject to additional review by local FSA and SWCD boards.

Approved Conservation Practices

The following conservation practices may be eligible for enrollment in the Minnesota CREP:

- CP2 Establishment of Permanent Native Grasses
- CP3 Tree Planting
- CP3A Hardwood Tree Planting
- CP4D Permanent Wildlife Habitat
- CP9 Shallow Water Areas for Wildlife
- CP12 Wildlife Food Plot
- CP15A Establishment of Permanent Vegetative Cover (Contour Grass Strips)
- CP15B Establishment of Rotational
- Vegetative Cover (this is a proposed practice)
- CP21 Filter Strips
- CP22 Riparian Buffer
- CP23 Wetland Restoration
- CP25 Rare and Declining Habitat
- CP25A Critical Area Planting (this is a proposed practice)
- CP27 Farmable Wetlands Pilot Wetland
- CP28 Farmable Wetlands Pilot Wetland Buffer

Haying and Grazing

Managed haying and grazing are permitted during the CRP contract period, subject to reductions in payment and restrictions on timing and extent of haying and grazing. Contact your local FSA office for additional information. Managed haying and grazing may be permitted on a RIM easement if it is part of a conservation plan to enhance or maintain the conservation practice for wildlife.

Enrollment in Other Programs

CREP is another option that landowners may select to enhance their land; applicants may still enroll in the general CRP, continuous CRP, or RIM program. However, CREP provides additional benefits not available through these other programs. Under CREP, applicants have the flexibility to extend conservation benefits through a state-funded program and thus increase the sum total of payments. Also, the enrollment process is on a continuous basis and payments are generally at a higher rate.

Supporting Documents

Supporting documents include: Lower Mississippi River Basin in Minnesota Conservation Reserve Enhancement Program (SE CREP); Red River Basin Conservation Reserve Enhancement Program (RR CREP); and Southwest Minnesota Conservation Reserve Enhancement Program (SW CREP).

**MINNESOTA'S CONSERVATION RESERVE ENHANCEMENT PROGRAM:
THE SECOND GENERATION**

Watershed		Easement Options
Easement Location/Type	Acre Targets	Duration
RED RIVER BASIN CREP ¹		
Riparian	25,500 Acres	Landowner Choice: 35 yr., Perpetual
Wetland Restoration ²	17,000 Acres	Perpetual only
subtotal	42,500 Acres	
SOUTHEAST MN CREP		
Riparian Zones	11,050 Acres	Landowner Choice: 35 yr., Perpetual
Groundwater Protection	4,675 Acres	Landowner Choice 35 yr., Perpetual
Highly Erodible Land	15,000 Acres	Landowner Choice 35 yr., Perpetual
Rotation Contour Strip	2,850 Acres	15 yr. CRP contract only
Wetland Restoration ²	8,925 Acres	Perpetual only
subtotal	42,500 Acres	
SOUTHWEST MN CREP		
Riparian Zones	9,000 Acres	Landowner Choice: 35 yr., Perpetual
Wellhead/Groundwater	1,500 Acres	Landowner Choice: 35 yr., Perpetual
Wetland Restoration ²	4,500 Acres	Perpetual only
subtotal	15,000 Acres	
Total	100,000 Acres	

Easement Duration commences at the expiration of the 15 year CRP contract.

¹Application will include request to extend existing high priority CRP contract.

²Requires perpetual easement by MN Statute 103F.515 Subd. 5 (3).

APPLICATION SUMMARY	
3 Watershed Proposals Included: Red River, SE Minn., & SW Minn. 100,000 Acre Enrollment Goal: Accomplishment Targets	
Riparian Zones	45,550 Acres
Wetland Restoration	30,425 Acres
Highly Erodible Land	15,000 Acres
Groundwater/Wellhead Protection	6,175 Acres
Rotation Contour Strips	2,850 Acres
\$46 Million State dollars leverage \$180 Million Federal dollars - Improves & protects water quality, reduces soil & water erosion, & creates 100,000 acres of fish & wildlife habitat.	

FINAL DRAFT

**LOWER MISSISSIPPI RIVER BASIN
IN MINNESOTA
CONSERVATION RESERVE
ENHANCEMENT PROGRAM**

**SUBMITTED TO THE
UNITED STATES DEPARTMENT OF AGRICULTURE**

**BY:
THE STATE OF MINNESOTA
APRIL, 2002**

COUNTIES

Blue Earth, Dodge, Dakota, Faribault, Fillmore, Freeborn, Goodhue, Houston, Le
Sueur, Mower, Olmsted, Rice, Scott, Steele, Wabasha, Waseca, Winona

Section 1: Abstract

Description of Project Area: The Lower Mississippi River Basin in southeastern Minnesota includes all or part of 17 counties covering 7,266 square miles (4,650,100 acres) of land. It includes 11,500 miles of streams that discharge to the Mississippi, of which 736 miles are designated for trout. About 60 percent of the land is under cultivation, 13 percent forested, 8 percent pasture and 2 percent urban. Fractured limestone bedrock underlies a thin mantle of erosion-prone loess soil in the karst region to the east. Cow-calf and dairy farms add to land-use diversity with pasture, hay and woodland complementing corn and soybeans on hilly terrain. To the west, where major tributaries have their origin, intensive row-crop farming is dominant and most of the terrain is gently sloping.

Existing Conditions and Agricultural Impacts to be Addressed: Water quality monitoring shows widespread exceedances of state and federal water quality standards for turbidity (suspended solids) and fecal coliform bacteria, and increasing concentrations of nitrate nitrogen. Nitrate concentrations exceed drinking water standards in shallow aquifers. Flooding is a major problem. Meeting water quality standards and reducing sediment and nitrogen export to the Mississippi are priority concerns. Increased row-crop production and drainage, and extreme weather, increase stream flows and stream bank erosion. Loss of hay and pasture acreage, excess application of manure and fertilizer, intensive tillage and overgrazing are major sources of these problems.

Project Description: The Basin Alliance for the Lower Mississippi in Minnesota (BALMM) Landscape Buffer Initiative is part of a comprehensive basin plan. The Initiative calls for multi-functional vegetated buffers in four types of strategic locations to reduce runoff, erosion, water pollution and peak stream flows while increasing wildlife habitat. The four strategic locations are: highly erodible land; riparian zones; drained wetlands; and groundwater protection zones.

Size of Project Area and CRP Practices to be Installed: The basin comprises a total of 7,266 square miles (4,650,100 acres) of land, 60 percent of which is cultivated cropland. CRP practices to be installed include: CP-2 (Native Grass); CP-3 (Tree Planting); CP-3A (Hardwood Tree Planting); CP- 4D (Wildlife Habitat); CP-6 (Diversions); CP-12 (Wildlife Food Plots); CP15A (Permanent Vegetative Cover); CP21 (Filter Strips); CP22 (Riparian Buffers); CP 23 (Wetland Restoration); CP25 (Rare and Declining Habitat); CP27/28 (Farmable Wetlands).

Total Number of Acres to be Contracted: 95,730 acres, allocated as follows:

- Highly Erodible Land: 40,230 acres
- Riparian Corridors: 25,000 acres
- Wetland Restoration: 20,000 acres
- Groundwater Protection: 10,500 acres

Estimated Cost of the Project: Approximately \$225 million over 15 years, with \$190 million from the Federal Government, and \$45 million from the State.

Section 2: Existing Conditions

State and national significance: The project area is of state and national significance for many reasons. The project area is a significant source of pollution that negatively impacts water quality and aquatic habitat in the Mississippi River and Northern Gulf of Mexico. The project area also possesses high recreational value, which, however, is being limited by aquatic and terrestrial habitat degradation.

- Water Quality Standard Exceedances: The region's streams generally exceed state and federal water quality standards for fecal coliform bacteria (20 stream reach impairments) and turbidity (19 stream reach impairments). This includes tributaries and the Mississippi River. The Root River, for example, is impaired by high turbidity in its lower reach and is a significant source of turbidity and suspended sediment downstream in the Mississippi River in Navigation Pool 8. Plans to achieve water quality standards must be developed and implemented as required in the Federal Clean Water Act, Section 303, through the Total Maximum Daily Load process. It is an urgent state and national priority to develop and implement such plans.
- The Upper Mississippi River System (UMRS) includes commercially navigable reaches of the Mississippi River between Cairo, Illinois and St. Paul, Minnesota, including the main channel and its floodplain. The UMRS is a nationally significant ecosystem and a nationally significant commercial navigation system, as declared by the U.S. Congress in 1986. It is critical habitat for 286 state-listed or candidate species and 36 federal-listed or candidate species or rare, threatened or endangered plants and animals endemic to the Upper Mississippi River Basin. The portion of the UMRS that borders southeastern Minnesota, Navigation Pools 3-9, includes some of the highest quality wildlife habitat of the entire UMRS. A 1990 study showed that 75% of all nonresident recreation expenditures in the entire UMRS corridor occurred within the St. Paul District of the US Army Corps of Engineers, which includes Navigation Pools 1-10. The BALMM region of southeastern Minnesota drains to the river and its floodplain, impairing its quality with discharges of sediment and nutrients.
- Hypoxia in the Northern Gulf of Mexico: The problem of low dissolved oxygen (hypoxia) in the Northern Gulf of Mexico is a national concern that has been linked to excessive loads of nitrate nitrogen from the Mississippi River. An estimated 56 percent of the annual average nitrate nitrogen load originates in the Upper Mississippi River Basin, upstream of Cairo, Illinois. Southeastern Minnesota watersheds are identified as yielding high (10,000 – 15,000 kg/km²) and very high yields (15,000 – 20,000 kg/km²) of nitrate nitrogen to the Mississippi River.

- Trout Stream Habitat: Southeastern Minnesota is home to 736 miles of trout water in 102 streams, which attract anglers from miles around. In 1998, a DNR creel survey estimated total mean angling pressure to be 617 hours/acre. By contrast, angling pressure on Minnesota lakes rarely exceeds 100 hours/acre. Total estimated annual angling pressure in southeastern Minnesota streams is 500,000 hours. Prior to European settlement, brook trout were distributed throughout the region, but have largely been replaced by introduced brown trout. Brook trout are now restricted to small feeder streams and headwater sections. Trout require cold, clear, oxygen-rich water, and are very sensitive to disturbances from sedimentation, high flows and loss of riparian vegetation. Cold-water streams therefore are protected with more stringent water quality standards than apply to warm-water streams, in accordance with state and national priorities. Management of this fishery is the major DNR Fisheries management program in southeast Minnesota.

- Hunting Habitat – Big-game hunting for white-tailed deer and turkey occurs throughout the area and is most prevalent in the eastern half where habitat is most extensive. More than 25,000 deer were harvested in 2000. Almost 13,000 individual permits were issued, and about 4,100 turkeys harvested during the spring 2000 wild turkey season. Hunting pressure for deer remains constant, and interest in turkey hunting is increasing as turkey populations expand. Duck hunters spent an estimated 96,692 hunting days afield and harvested 96,804 ducks in 2000. The same year, an estimated 23,112 pheasant hunters spent 161,782 hunting days afield and harvested 67,785 pheasants. Each hunter spends an estimated \$416/season, for a total of \$9.6 million, a strong stimulus to the regional economy.

- Trails – Nine trails ranging from three to 48 miles have been established on abandoned railroad grades for hiking, biking, in-line skating, and cross-country skiing. DNR surveys from 1997 and 1998 show that the most popular trails attract upwards of 100,000 user hours per summer, while the remainder attract about 50,000 user hours. Hundreds of additional trail miles are planned in order to create connected corridors traversing southeastern Minnesota. Maintenance of high water quality in streams adjacent to the trails, and landscape diversity on land adjacent to the trails, is integral to the quality of outdoor experience valued by the thousands of people who use the trails.

Human Activities and Land Use in the Basin:

The Lower Mississippi River Basin in southeastern Minnesota includes all or part of 17 counties covering 7,266 square miles (4,650,100 acres) of land. It includes 11,500 miles of stream, 736 of which are designated for trout. About 60 percent of the land is under cultivation, 13 percent forested, 8 percent pasture and 2 percent urban. Fractured limestone bedrock underlies a thin mantle of erosion-prone loess soil in the karst region to the east. Here, cow-calf and dairy farms add to land-use diversity with pasture, hay and woodland complementing corn and soybeans on the hilly terrain. To the west, where the major tributaries have

their origin, intensive row-crop farming is dominant and most of the terrain is gently sloping. The basin population increased by 12 percent to more than 600,000 from 1990 to 1998, putting increased recreation and development demands on the region's land and water resources. Most of the growth has been in Dakota (23.3 percent), Rice (10 percent), Dodge (10 percent) and Olmsted (11.8 percent) counties. Population growth in the first two counties is oriented to employment opportunities in the Twin Cities Metropolitan Area, while population growth in the latter two counties is related to expanding employment opportunities in Rochester, much of it triggered by the rapidly growing Mayo Clinic complex.

Farm Demographics: According to Minnesota Agricultural Statistics 2001, there are 12,844 farms in the basin operating 2,966,165 acres of cropland with an average size of 286 acres. Average farmer age is 51.

Environmental Factors

- Precipitation and runoff: Southeastern Minnesota receives the highest average annual precipitation in the state, 28 to 31 inches, which often occurs as intense storms. The abundant moisture greatly benefits crop production but aggravates problems associated with soil erosion and sediment transport to surface water. Annual runoff ranges from 5.5 to about 8 inches on average, increasing from west to east.
- Soils: Two distinct areas of wind-deposited silt loam (loess) soils dominate the southeastern Minnesota landscape. The karst area to the east has relatively deep to shallow deposits of loess overlying limestone and sandstone bedrock and has exceptional water- and nutrient-holding capacity. The soils also have good internal and surface drainage with a rolling topography and gradual to steep slopes. Soil depth varies from one foot to greater than 20 feet. Gently sloping to flatter fields characterize the other major soil area located on the western edge of the rolling landscape. The loess soil in this area developed as a cap overlying glacial till. The soil has good water- and nutrient-holding capacity as well, but much poorer internal drainage due to the fine-textured subsoil. Loess soils are susceptible to erosion, particularly those on rolling landscapes with steep slopes.
- Important geologic features: Much of southeastern Minnesota exhibits a karst topography where the upper carbonate bedrock, covered only by that thin layer of glacial material or loess, contains numerous and sometimes extensive solution fractures and cavities. The dissolution of the carbonate rocks has led to structural characteristics like sinkhole formations and provides for a high degree of underground drainage with rapid infiltration to lower aquifers and direct connections between surface waters and ground waters. Karst topography is the term used for the regions over shallow limestone or dolomite bedrock that have had fractures enlarged and caves formed through the dissolution of the rocks. Karst areas are characterized by,

among other things, sinkholes, caves, disappearing reaches of streams and rapid underground drainage. Due to the interconnection of surface and groundwater, the risk of aquifer contamination is relatively high.

A second important geologic feature is a linear outcropping of the Decorah shale formation, which runs through five counties in the basin for several hundred miles. The Decorah shale formation acts as a confining layer to upper carbonate aquifers above it, which tend to be very high in nitrate nitrogen concentrations. Water seeps from the upper aquifers over the shale and then percolates through overburden to recharge deeper aquifers that serve as drinking water supplies to cities such as Rochester and Preston. When left intact, with vegetative cover, the band of soil covering the face of the outcropping plus a few yards up- and down-slope provides significant infiltration, absorption and denitrification of polluted water from the upper aquifers. When cropped or covered over with impervious surface, it loses these functions to the detriment of water quality and quantity.

- Vegetation patterns: Western basin: Gently rolling plains in the west and central portions of the region are heavily farmed with very little original vegetation present.

Eastern Basin: The blufflands area of the east consists of bedrock deposits of limestone and sandstone that are heavily eroded with exposed bluffs and deep stream valleys (500 to 600 feet deep). When the first settlers arrived, they found valleys rich in bottomland forests and clean, spring-fed streams with abundant brook trout populations. Oaks dominated most slopes, although sugar maples and basswood grew on some north- and east-facing slopes. Some of the upland was oak savanna, gently rolling prairie with scattered oaks. Today, upland plains and plateaus are farmed while forests are found along major river corridors and valleys. Remnant stands of white pine and other plants usually found farther north still remain from a time when the climate was colder.

Western Basin: The Oak Savanna Landscape once hosted a mosaic of plant communities: oak savanna, tallgrass prairie, wetlands, and maple-basswood forest. The occurrence of a particular community depended on topography, geology and disturbances. Approximately 90 percent of the land has been converted to cropland (87%) or developed for towns, housing, industries, roads or rails. Natural communities exist as scattered remnants. Ecological systems are severely degraded and have lost their ability to renew themselves or provide resources on a sustainable basis. The largest prairies remaining occur in road ditches. Remaining examples of oak savannas are rare, small and severely degraded by the invasion of non-native plants and the lack of fire.

- Wildlife: In the course of a year, as many as 42 mammal species and 237 bird species use the ecosystems. In the eastern basin, algal talus (steep, rocky,

southern exposure) slopes support plant and animal communities found nowhere else in Minnesota and few other places on Earth. Many upland game species including deer, turkey, pheasant, partridge and ruffed grouse thrive in this area.

- **Water Resources:** The surface water resources of the Lower Mississippi River Basin in Minnesota consist of 11,566 stream miles (364 miles assessed) and 114,781 lake acres (54,110 acres assessed).

Lakes: Of 47 monitored lakes, 7 are fully supporting, 4 are partially supporting and 36 are nonsupporting of water quality criteria established for lake assessment in Minnesota. Excess phosphorus resulting in hypereutrophication is usually the cause of partial and non-support.

Streams: Water quality monitoring over several decades shows widespread exceedances of state and federal water quality standards throughout the basin for turbidity (suspended solids) and fecal coliform bacteria, along with steadily increasing concentrations of nitrate nitrogen. Nitrate concentrations exceeding drinking water standards are found in shallow aquifers. Meeting water quality standards and reducing nitrogen export to the Mississippi River are priority concerns to the state and nation, on top of regional and local concerns caused by water quality degradation. Intensive land use and extensive drainage, coupled with extreme weather, has led to increased flooding and stream bank erosion. Agricultural land use is a significant source of these problems, with livestock manure, commercial fertilizer, and tillage and grazing practices among the major sources of excess nutrients, fecal coliform bacteria and soil erosion, which degrades both soil productivity and stream water quality.

Ground water: Generally, the upper-most ("shallow") glacial and bedrock aquifers will have ground water movement which is locally toward the nearest topographic drainage point such as a stream or valley and regionally toward the mouth of the watershed. It is often the case that the upper bedrock aquifers have regional flow directions which mimic the surface water flows in the watershed. The general pattern for ground water aquifers is to have recharge in the upland plateaus with subsequent dewatering as baseflow, springs or seeps into the stream valleys. Bedrock aquifers also exhibit a constant downward movement of water with some recharge to deeper aquifers through leaky confining units and some aquifer cross-over of watershed boundaries. The ground water movement of the water table and surficial aquifers tends to bend parallel to river flows with a water table divide at the stream.

Many of the watersheds have areas that are highly susceptible to ground water contamination. These areas typically have only a thin sediment layer over the bedrock. This susceptibility is also magnified by the bedrock

dynamics exhibiting rapid water travel times through dissolved limestone and dolomite fractures, caves and extensive underground drainage. While many aquifer waters typically move only a few feet per year, many of the waters in the karst regions can have ground water movement on the extreme order of miles per day. Nitrates, pesticides, and bacteria are common pollutants that can re-enter streams through this underground drainage as well as move vertically to impact deeper aquifers. In addition, many of the ground water aquifers are highly susceptible to pollution because of extensive areas of coarse sediments such as outwash or riverine sand deposits. On the other hand, one of the benefits of this high degree of ground water and surface water interaction is that it provides for a strong (and cool) supply of water to streams through baseflow and springs that has resulted in many of the trout stream reaches in this basin

- Air Quality: Throughout the basin, ambient air quality is in attainment with criteria pollutants listed in state and federal regulations.
- Federally listed endangered and threatened species: Algific talus (steep, rocky, southern exposure) slopes support plant and animal communities found nowhere else in Minnesota and few other places on Earth. Fourteen threatened or endangered species (federal and/or state) occur within very unique and specific habitats. The following five are federally threatened or endangered species: the peregrine falcon, bald eagle, Karner blue butterfly, Leedy's roseroot, and the Higgins Eye pearly mussel.

Section 3: Agriculture-Related Environmental Impacts

Agricultural impacts can be most clearly described with reference to specific water quality concerns. These include:

- Fecal coliform bacteria: Data from more than 600 water samples from 1997 to 2000 show stream concentrations on average are about twice the water quality standard of 200 organisms per 100 ml. Livestock manure accounts for an estimated 80 percent of the problem during spring and summer wet weather periods, when fecal coliform concentrations tend to be highest, according to an assessment of the Straight River Watershed, a tributary of the Cannon River. Fecal coliform bacteria also is detected in shallow groundwater. Manure runoff to sinkholes and other focused recharge zones are suspected sources, along with failing septic systems.
- Turbidity: Turbidity values exceed the water quality standard for about 23% of samples taken in the Zumbro, 20 to 40% of samples in the Mississippi River downstream of the Root River confluence, and for 47 to 75 percent of samples for Garvin Brook, a trout stream. Watershed assessments identify agricultural runoff as the main source of suspended sediment, which correlates very closely to turbidity. In the Whitewater River Watershed, a

1996 assessment indicated that 68 percent of sediment in the river came from sheet and rill erosion, largely from agricultural fields, while 21 percent came from stream bank erosion. Watershed modeling often shows agricultural best management practices to be the most effective ways to reduce sediment runoff. An assessment of Dobbins Creek, northeast of Austin, showed that most stream sediment originated in the uplands of a largely agricultural watershed. The Agricultural Nonpoint Source model showed that gully removal plus conservation tillage would reduce sediment in the stream by 33% after a 5-inch storm, and by 60% in a normal year of moderate rainfall events. A study of the Wells Creek watershed near Frontenac estimated that 100-foot buffers plus conservation tillage would reduce sediment in the stream by 31%.

- Nitrate Nitrogen – Concentrations show a steady increase over three decades across the basin. In small headwater streams, the concentration of nitrate nitrogen often exceeds 10 mg/L, the drinking water standard. Typical tributary concentrations range from 3.0 to 9.0 mg/L, with values in the Mississippi from 1-3 mg/L. Besides posing a potential health threat to drinking water, high nitrate nitrogen concentrations lead to excessive algae production in Mississippi River backwaters and contribute to very low oxygen levels, or hypoxia, in the Northern Gulf of Mexico. Soil organic matter and nitrogen fertilizer are by far the leading sources of inorganic nitrogen, providing 42 and 36 percent of the total amount, respectively, statewide. In southeastern Minnesota, livestock manure is another significant source. In the Garvin Brook Watershed study, where more than 36 percent of private wells exceeded the nitrate standard, nitrate-nitrogen concentrations four to eight feet below fertilized land generally were between 20 and 50 mg/L.
- Phosphorus: High concentrations of phosphorus can trigger excessive algae production, or hyper-eutrophication, in lakes, reservoirs or slow-moving rivers or backwaters with hydraulic residence time of one week or more. The decay of algae can use up dissolved oxygen near the bottom of rivers and lakes, threatening aquatic life. This condition of hyper-eutrophication occurs in shallow lakes in the western basin, as well as in Lake Pepin on the Mississippi, Lake Zumbro on the Zumbro River, and Lake Byllesby on the Cannon River. The latter three lakes have been proposed for addition to the Section 303(d) list of impaired waters, for which TMDLs must be developed.

While hyper-eutrophication does not often occur in Mississippi River navigation pools bordering Minnesota, it is more common further south, in Pools 13 and downriver. Since phosphorus is a conservative pollutant, it can contribute to hyper-eutrophication far from its point of origin, so that phosphorus originating in southeastern Minnesota can contribute to algae production in the Mississippi near Clinton, Iowa, or below. Typically, point sources provide the majority of phosphorus during dry periods, and nonpoint sources dominate during wet weather, when rainfall or snowmelt carries

phosphorus attached to sediment, or in solution from manure runoff, to surface water. A 1996 study of Lake Byllesby, for example, estimated that nonpoint sources contributed 65 percent of phosphorus in normal years, and about 45 percent in low-flow years. Manure, commercial fertilizer and phosphorus-rich soil are major agricultural sources of phosphorus.

Past and Projected Future Trends in Agricultural Impacts:

1850 to 1930: The period of European settlement and clearing of the land for agriculture brought profound changes to the landscape. As the new population expanded, highways and towns were built, prairies were plowed for grain production, forested bluffs were cleared for pasture, and the increased runoff and eroded topsoil were shunted off downstream. By the 1920s, resultant problems were becoming intolerable, particularly in steeply sloping areas to the east. For example, farms and small towns were being flooded up to 20 times per year. Low-lying fields and homes were buried under 15 feet of eroded soil in the Whitewater River watershed, where the once-prosperous towns of Beaver and Whitewater Valley were abandoned. Bridges were washed out and had to be repeatedly rebuilt, and ditches and culverts became perpetually clogged with sediment and debris. Clear, cold and productive trout streams became sediment-laden, flood-ravaged warm water streams incapable of supporting native trout.

1930 to 1970: In response to these problems in addition to the Dust Bowl and the Great Depression, the Soil Erosion Service was established in the 1930s, which later became the Soil Conservation Service and today is the Natural Resources Conservation Service. Soil and Water Conservation Districts were established in counties. Federal funding was made available for the design and construction of soil conservation practices. Gradually, as contour farming, terraces, waterways, sedimentation basins and other practices were widely installed, and farmers became more conscious of the need to control erosion, soil erosion and associated problems of flooding, stream channel disturbance and degraded water quality began to subside. From decade to decade, more and more stream reaches became cold, clear and stable enough to once again support trout reproduction.

1970 to present: During the past three decades dramatic changes have taken place in both the technology of agriculture and the structure of farming which have had a mixed influence on soil conservation, water quality and wildlife habitat. New technologies such as high-horsepower mechanization, commercial fertilizer and synthetic pest control agents began to be introduced shortly before and following World War II. At first, farmers adopted these technologies to their existing operations, which were diversified crop and livestock enterprises with a typical size of 160 acres, and average herd sizes of 20-30 milk cows, 10 – 20 sows, 50 – 100 feeder pigs, etc. Land use remained similarly diverse, with hay, pasture and woodland complementing production of corn, small grains, and soybeans. However, by the 1970s,

farming in southeastern Minnesota began following national trends of specialization and expansion which have persisted through the present. A few of the most dominant trends, and their effect on the environment, are as follows:

- Larger farms and fields: Typical commercial farm size has increased from 160 acres to 1,000 to 2,000 acres (average farm-size statistics which include small hobby farms mask this trend). Fence rows, grassed waterways and terraces are commonly eliminated to expand field size to accommodate larger tractors and wider equipment. This increases slope length and erosion potential.
- More row crops, less perennial vegetation: At first in the western basin, and more recently in the east, once-diversified farms have abandoned livestock together with acreage of hay, small grain and pasture. In 9 southeastern Minnesota counties from 1975 to 1999, the percentage of crop acreage comprised of corn and soybeans increased from 64 percent to 80 percent. Data from the National Resources Inventory for the basin shows a 28 percent decline in acreage of pastureland and noncultivated cropland from 1982 to 1997. Driven by farm program incentives and livestock sector economics, hundreds of farmers are planting soybeans on steep slopes once planted to contour strips of corn and alfalfa hay. Not only does this dramatically increase the potential for soil erosion; it also greatly increases the potential for nitrate leaching to shallow groundwater.
- Concentrated livestock production: New dairy operations with several hundred or even 1,000 cows or more have started to become established over the past decade in southeastern Minnesota, replacing herds of 30 to 60 cows. Confinement hog operations with several thousand animal units are not uncommon. This results in highly concentrated manure storage and application, hence the need for more careful design and management of feedlots and manure application to avoid excessive runoff and leaching. Managed, rotational grazing of dairy and beef cattle has proven to be economically viable and environmentally beneficial in the region, but so far is practiced on a relatively small number of farm operations.
- Crop nutrient application rates: Two detailed studies of manure and commercial fertilizer use in southeastern Minnesota suggest that farmers tend to exceed University of Minnesota nitrogen application recommendations by 16 to 53 pounds per acre, when sources from previous legume crops, manure applications and soil mineralization are taken into account. The lower number applies to a project where farmers were engaged in nutrient management education and planning, whereas the second estimate reflects broader farmer practice.

- Increased conservation tillage: Conservation tillage adoption rates on row-crop land ranged from about 23 percent to 77 percent of surveyed sites in a 2000 county transect survey of cropland in the basin. Although this represents considerable progress in providing erosion control under normal rainfall conditions, there is considerable scope for increased adoption, and the need remains for control measures to reduce soil erosion and runoff from rare, catastrophic storms.
- Surface and subsurface artificial drainage: Much of the landscape in the western basin was drained for agricultural production starting in the 1940s and '50s with surface ditch construction and subsurface tiling. Drainage tile technological advances in the 1970s has accelerated the rate and intensity of subsurface drainage, particularly in the western basin. While this has improved agricultural productivity and made possible conservation tillage on poorly drained fields, it also has eliminated much wetland habitat and drastically altered the hydrology of the region's stream network. As a result, the region's streams are more "flashy" today than they would otherwise be, with intense storms leading to higher peak flows, and dry periods leading to lower base flows, than prevailed before the advent of artificial drainage. This has the effect of increasing stream bank erosion and otherwise disturbing the habitat requirements of trout and other aquatic life.

Future: Land use trends indicate that environmental problems may worsen in future years, as soybeans continue to replace hay and oat production on thousands of acres on steep hills, field sizes continue to grow, farms continue to specialize in row crops or concentrated livestock production, and artificial drainage continues at a rapid pace. Agricultural scientists and leaders as well as natural resource managers are becoming alarmed at these trends, and question whether the corn-soybean rotation is environmentally sustainable on the steep slopes of southeastern Minnesota. Particularly threatened are cold-water streams that provide trout habitat in the karst region of the eastern basin.

Nature of Health-Related Impacts:

Fecal Coliform Bacteria: Long-term monitoring of fixed sites in the basin demonstrate widespread exceedence of the water quality standard for fecal coliform bacteria. Concentrations often are at levels two to four times the standard used by state sanitarians to close beaches, which is 200 organisms per 100 ml water sample. This is an indication that too much fecal matter is entering the stream. Although it is not direct evidence of pathogens in the water, it does indicate a potential threat to public health.

Antibiotic-Resistant Bacteria: The widespread use of sub-therapeutic levels of antibiotics in livestock feeding operations may be leading to the development of resistant strains of pathogens. Research has been proposed for southeastern Minnesota to determine whether land application of manure is likely to be a significant means for spreading these pathogens into the environment, and whether resistant bacteria move through the soil profile or by overland flow into surface and subsurface flow. At a BALMM public forum in Rochester, Minnesota, in November 2000, citizens asked what is known about the extent of antibiotic-resistant bacteria in the water in southeastern Minnesota. A medical doctor in attendance insisted that this is a potentially widespread problem that deserves attention. Subsequently, the Lower Mississippi River Basin Plan Scoping Document was revised to include mention of this concern and the need to address it through water quality monitoring.

Nitrate Nitrogen: High concentrations of nitrate nitrogen (NO_3) in drinking water pose a threat to human health, which is why the federal standard for NO_3 in drinking water has been established at 10 mg/L. The greatest threat of nitrate nitrogen is to infants, which may develop a condition known as methemoglobinemia (blue baby syndrome) as a result of ingesting excessive amounts of nitrate nitrogen. Cases of methemoglobinemia in Minnesota and other midwestern states have been associated with high levels of nitrate in well water. In southeastern Minnesota, high nitrate concentrations, often in excess of the drinking water standard, are common in older, shallower wells that draw from upper carbonate aquifers.

Past, Ongoing and Future Efforts (State and Federal) to Address Ag Impacts: As mentioned above, local, state and federal programs to address soil erosion have had a positive impact on soil erosion, runoff, flooding and water quality. A major effort in soil conservation starting in the 1930s resulted in the implementation of conservation practices broadly across the landscape.

Starting in 1977, state cost-share funds delivered through local Soil and Water Conservation Districts enabled landowners to reduce soil erosion through the implementation of additional conservation practices. The Minnesota Board of Water and Soil Resources (BWSR) administers this program, along with state wetland conservation legislation and a land-retirement program called the Reinvest in Minnesota (RIM) Reserve.

The 1985 Farm Bill introduced additional programs, such as the Conservation Reserve Program, and conservation compliance, which required farmers with highly erodible land to operate their farm according to a conservation plan. These plans relied heavily on conservation tillage to achieve compliance, triggering a major increase in adoption of reduced tillage methods across the landscape, particularly in the southeastern-most river counties and the far western basin. State and federal agencies played a significant role in furthering this trend, as did the agricultural input supply industry by developing additional burn-down and

post-emergent herbicides, durable, accurate planters, and equipment with tolerance for high levels of surface residue.

Currently, the NRCS, FSA, BWSR, DNR, PCA and SWCDs continue to be very active delivering conservation programs and responding to the needs of local landowners who want to improve their soil conservation performance. In the past several years, increased attention has been paid to installing practices for both soil conservation and water quality benefits. Most recently, in 2001, through the Basin Alliance for the Lower Mississippi in Minnesota, local, state and federal agencies have developed collaborative interagency strategies addressing soil erosion, wetland conservation, nutrient management and the maintenance of perennial vegetation on the landscape. The BALMM Landscape Buffer Initiative was developed as part of this comprehensive plan.

The following table summarizes current activity levels for the following state and federal conservation programs: Reinvest in Minnesota (RIM) Reserve; Conservation Reserve Program (CRP); Emergency Watershed Protection (EWP); Wetland Reserve Program (WRP); Wildlife Habitat Improvement Program (WHIP); and Environmental Quality Improvement Program (EQIP).

State and Federal Conservation Programs in Program Area			
Program	Contracts	Acres Enrolled	Dollars Awarded
RIM	302	9,567	5,841,446
CRP		122,523	
EWP	7	490	1,014,283
WRP	86	5,428	6,890,258
WHIP	91	2,023	428,295
EQIP	425		7,622,465
Total	911	140,031	

Section 4: Project Objectives

The objectives of this project are presented with reference to the following environmental goals: 1) Reduce soil erosion; 2) Reduce sediment in streams; 3) Reduce nitrate nitrogen in surface water and ground water; 4) Reduce peak flows of streams; 5) Improve fish and wildlife habitat. This CREP proposal also is designed to contribute toward the achievement of objectives listed in the BALMM *Lower Mississippi River Basin Plan Scoping Document*, as well as *Watermarks 2000*, the 10-year water plan for the State of Minnesota, as indicated below.

Reduce Soil Erosion: Implementation of the BALMM Landscape Buffer Initiative on highly erodible land through critical area seedings and contour strips is expected to result in a reduction in gross soil erosion of 2,341,250 tons on 214,000 acres of land eroding at twice the tolerable level or greater, according to NRCS estimates. The project objective is to target the implementation of an estimated 40,230 acres of buffers on highly erodible land to reach this target.

Critical area seedings will bring erosion rates down to very low levels of approximately 1 ton/a. Contour strips will reduce erosion rates from an average of 27.7 tons/a to 7.35 tons/a on land eroding at 4T and above, and from 12.7 tons/a to 6.0 tons/a on land eroding at 2T-4T per acre.

Reduce Sediment in Streams: A recent study (Boody and Krinke, 2001) found that sediment delivery to the mouth of Wells Creek could be reduced by an estimated 31 percent through implementation of riparian buffers and conservation tillage. An overall project objective is to achieve this goal throughout the basin by implementing buffers in concert with other conservation practices.

A key objective of the BALMM Landscape Buffer Initiative is to target the implementation of buffers to achieve a total reduction of in-stream sediment of 224,051 tons per year. These benefits will be achieved with buffers implemented in three strategic locations, as follows:

Highly Erodible Land: With a sediment delivery ratio of 7.7 percent (Whitewater River Watershed Project), a reduction in soil erosion of 2.34 million tons leads to a reduction in sediment load to streams of 180,276 tons.

Riparian Buffers: Based on a MPCA spreadsheet developed for the Minnesota River Basin CREP, 25,000 acres of well-targeted riparian buffers can reduce sediment in streams by 35,775 tons.

Wetland Restoration: Based on a MPCA spreadsheet developed for the Minnesota River Basin CREP, 20,000 acres of restored wetlands is expected to reduce annual in stream sediment load by 8,000 tons.

Reduce Nitrate-Nitrogen in Surface Water and Ground Water: An objective of the BALMM Landscape Buffer Initiative is to achieve nitrate-nitrogen reductions through wetland restoration in the western basin (MLRA 103 and 104). Target the restoration of 20,000 acres of wetlands, mainly in the western basin (MLRA 103 and 104), to achieve a 15% reduction in concentration of nitrate nitrogen in surface water. The Integrated Assessment on Hypoxia in the Gulf of Mexico (Mitsch et al; Randall, personal communication) suggests that this can be attained through restoration of properly designed and positioned wetlands on 0.7% of the land surface.

Reduce Peak Flows of Streams and Rivers: Reduce peak flows by an estimated average of 3.7 percent for each additional percent of the landscape restored to wetlands (Demisse and Khan, 1993). By focusing wetland restoration in priority watershed projects, achieve peak flow reductions above 3.7 percent, especially in upper reaches for less extreme flood events.

Increase the Quantity and Quality of Wildlife Habitat: By selection of appropriate native grasses and tree species, increase wildlife habitat in proportion to the increase in acreage of perennial vegetation.

Additional Water Quality Objectives:

- Support the BALMM/Watermarks goal of achieving water quality standards for fecal coliform bacteria and turbidity by 2010. This will be accomplished as part of a comprehensive basin plan, and coordinated with the implementation of regional TMDL plans for these pollutants.
- Support the BALMM/Watermarks goal of reversing the trend of increasing nitrate nitrogen concentrations in surface water by 2010.
- Support the BALMM/Watermarks goal of establishing naturally reproducing populations of brook trout in the region's designated trout streams.

Land Use Objectives:

- Support the BALMM/Watermarks goal of increasing perennial vegetation by 200,000 acres. This project will accomplish 40% of this goal.
- Support the BALMM/Watermarks goal of reducing soil erosion to no greater than the rate of soil formation (T).
- Support the BALMM goal of accelerating the implementation of riparian vegetated buffers as part of a strategy to increase perennial vegetation.
- Support the BALMM goal of achieving targeted wetland restorations that provide benefits to hydrology, water quality and biological diversity.

Section 5: Project Description

The Basin Alliance for the Lower Mississippi in Minnesota (BALMM) has developed a Landscape Buffer Initiative as part of a comprehensive basin plan to protect surface and groundwater resources while reducing peak stream flows. The initiative calls for the placement of multi-functional vegetated buffers in four types of strategic locations on the landscape to reduce runoff, soil erosion and water contamination while providing high quality wildlife habitat and abatement of peak stream flows. The four strategic locations are: highly erodible land; riparian zones; drained wetlands; and groundwater protection zones.

Environmental Criteria and Conservation Practices

All lands to be enrolled in this program must meet the eligibility criteria set forth at 7 C.F.R. Part 1410, and must also meet both the location criteria and the practice criteria described below.

Location Criteria: All lands enrolled must meet one of the following four criteria:

1. Highly Erodible Land: To be eligible for contour buffers, a field must have an Erodibility Index of 8 or greater. To be eligible for other practices, 51 percent or more of the field must have an Erodibility Index of 15 or greater. The contour buffer standard (CP15A) may be expanded to allow 30 to 60 additional feet for correction areas and to square off areas for waterways. Where contour buffers exist, flexibility to extend field borders to 60 feet where needed to allow access to buffer strips for maintenance. Field borders (picture frames) are eligible where contour buffers are established, and where needed for erosion control.
2. Riparian Zones: Riparian buffer and filter strip land along intermittent and permanent water courses in the project area are eligible. These vegetated areas shall be in widths specified in the NRCS Filed Office Technical Guide. Limited to cropland only. For occasionally and frequently flooded soils, NRCS Standards 391 and 393 may be used to extend beyond 180 feet.
3. Wetland Restoration Sites: The Federal 1987 Wetland Delineation Manual will be used to define and delineate wetlands. Wetlands and adjacent uplands at a ratio of up to four acres of uplands for each acre of wetlands in Major Land Resource Areas (MLRA) 103 and 104. In MLRA 105, a ratio of up to two acres of uplands for each acre of wetlands will be used. Wetland restoration easements will be perpetual by state law.
4. Groundwater Protection Zones:
 - Sinkholes: A buffer will use CP21 up to 120 feet from the edge of the sinkhole. In areas within the sinkhole watershed that exceed 120 feet, the buffer can be expanded to a maximum average of 200 feet, and enrolled through CP2 or CP25.
 - Wellhead Protection Areas: Areas of the field within the entire Drinking Water Supply Management Area approved by the Minnesota Department of Health.
 - Focused recharge areas: Contour buffer zones designed to intercept and denitrify water flowing over and immediately below outcroppings of the Decorah Shale geologic formation. Buffer width may extend to a maximum of 50 feet upslope and downslope of the edge of exposed shale. For additional erosion control and water quality benefits, the area identified can be extended on the contour to the ends of the field.

100 Ac limit
with exception

CRP conservation practices to be adopted: The following CRP conservation practices will be used in combination to address the resource needs identified in this application.

- CP-2 Permanent Native Grasses
- CP-3 Tree Planting
- CP-3A Hardwood Tree Planting
- CP-4D Permanent Wildlife Habitat
- CP-6 Diversion
- CP-9 Shallow Water Area
- CP-12 Wildlife Foodplot
- CP-15A Permanent Vegetative Cover (Contour Strips)
- CP-21 Filter Strip
- CP-22 Riparian Buffer (only on existing cropland)
- CP-23 Wetland Restoration
- CP-25 Rare and Declining Habitat
- CP-27/28 Farmable Wetland Program

Length of time for project implementation: This project will take applications from landowners for five years, therefore, we will need to secure five year of funding. We will use an additional two years to complete implementation of conservation practices.

Analysis of the likelihood that project objectives will be met: For the following reasons, the likelihood that objectives will be met is thought to be high:

- The Minnesota River Basin CREP project has achieved its signup objective of 100,000 acres well ahead of schedule. This basin is adjacent to the project area. This experience is being applied to the BALMM project.
- Current landowner interest in devoting land to conservation easements is high, based on 113 unfunded applications for WRP and EWP for \$12.3 million within the project area. Enthusiasm of local units of government for additional funding for landscape buffers is very high.
- Acreage goals are based on a realistic assessment of environmental need, landowner interest and the ability of local agencies to deliver needed technical assistance within the project period, provided that additional resources are provided for this purpose.
- Well-functioning, inter-agency collaboration through the BALMM Landscape Buffer Committee will continue through the CREP project.
- Geographic Information Systems will be combined with hydrologic and water quality analysis to identify high priority areas that offer maximum environmental benefits.
- Mass communication will be combined with direct mail and person-to-person contacts to achieve sign-up objectives throughout the basin, and to maximize sign-up in targeted areas.

Interagency Coordination The local CREP teams in each county in the basin will receive applications. Eligibility will be determined in cooperation with the USDA Farm Service Agency to ensure that each application meets the requirements as outlined in the CREP agreement. The soil and water conservation districts, Natural Resources Conservation Service and Minnesota Department of Natural Resources-Division of Forestry and Division of Waters, with existing and supplemental staff will do technical assistance and conservation plan development. Contract compliance will be conducted with the same inspection process used under CRP and RIM. Regular inspections will be conducted during the first three years after plan implementation to ensure establishment of practices, and at regular intervals after that to ensure contract compliance.

Acreage Needs Assessment

Four broad types of landscape buffers are needed to address environmental concerns in the Lower Mississippi River Basin. Estimates of acreage needs for each of these types of buffers are provided below:

1. Highly Erodible Land:

Resource Assessment: 214,000 acres *Acreage Goal --* 40,230

Critical Area Seedings and Contour Buffer Strips on steep, erosion-prone land where row crops are raised and hay acreage is not sufficient to provide effective strip cropping. Soil erosion in this area threatens to degrade soil productivity and harm water quality, especially by causing sediment embededness in cold-water streams with the potential to support trout. This acreage is predominantly in the eastern basin in karst topography, although all counties include significant acreage of such land. Land use analysis using the Universal Soil Loss Equation shows the following need to achieve the BALMM goal of T soil loss on highly erodible land in the basin. This is based on a combination of critical area seeding and hardwood forest establishment on 25 percent of farmland that is eroding at 4T or greater, plus the use of contour buffer strips in conjunction with conservation tillage on additional highly erodible land, as shown in the table below:

Erosion Rate	Acres of Highly Erodible Land	Needed for Critical Area Seeding and Hardwood Forest	Contour Buffer Acreage Needed to Reach T
Greater than 4T	60,000	15,000	6,750 (15% of field on 45,000 acres HEL)
From 2T to 4T	154,000		18,480 (12% of field)
Total	214,000	15,000	25,230

2. Riparian Zones

Resource Assessment: 160,000 acres *Acreage Goal* -- 25,000

The water quality benefits provided by riparian buffer strips range from erosion control and pollutant filtering to streambank stabilization and improved habitat for stream biota and wildlife.

Land Cover within 100 Feet of Streams			
County	Percent Row Crop	Percent Vegetated	Other
Dodge	54	37	9
Fillmore	27	62	11
Freeborn	63	28	9
Goodhue	38	50	12
Houston	15	73	12
Mower	60	32	8
Olmsted	36	50	14
Rice	53	36	11
Steele	50	40	10
Wabasha	24	63	13
Winona	16	74	10

Percent of land within 100 feet of streams that is in row crops, vegetated, or other land uses. Source: Minnesota Department of Natural Resources

Land cover analysis using GIS and satellite imagery indicates that tributaries in the western basin are the least protected with vegetated buffers. Most have well under half of riparian acreage in perennial vegetation. Streams in the region are moderately impaired by turbidity (or suspended solids) and fecal coliform bacteria. For counties with primarily karst topography, a relatively high percentage of riparian acreage is vegetated. However, some of the vegetated acreage is pastureland that may be eroding at high rates. In addition, the upper reaches of tributaries in this region sometimes have low percentages of riparian land in permanent vegetation. Thus, riparian buffers in the eastern basin also can provide important benefits. Basinwide, if implemented along with conservation practices in the upland and riparian zones, as called for in the BALMM basin plan scoping document, riparian buffer strips can go a long way toward meeting water quality standards and providing broad ecological benefits to the region.

To convert all row-crop acreage to buffers within a 100 foot (each side) riparian zone would require 160,000 acres. To achieve the target of 50% vegetated land use in the 100 foot (each side) riparian zone in the western basin, and meet the need for improved riparian vegetation management in karst topography, will require an estimated 25,000 additional acres of permanent riparian vegetation, basinwide.

3. Wetland Restoration Sites :

Resource Assessment --100,000 acres *Acreage Goal* -- 20,000 acres

The drainage, cultivation and development of land have combined to greatly increase the speed of runoff and the peak flows of streams following significant snow melt and rainfall events, as well as greatly reducing wildlife habitat provided by wetlands. The restoration of wetlands in strategic locations can begin to reverse these adverse effects. Opportunities for wetland restoration are greatest in the headwaters region in the western basin, while more limited opportunities exist in the river valleys and elsewhere in the karst region. In Mower and Steele Counties, the SWCDs estimate that 18,000 acres of wetlands could be restored in each county based on NWI maps and soil information. Applying this to the five headwater counties, and making provision for more limited wetland restoration in the east, the result is a resource need of 100,000 acres. It is proposed that 18,000 acres be targeted for wetland restoration in the headwaters region. The NRCS will be requested to evaluate how wetland restoration can be targeted in this region to maximize reductions in peak stream flows on the Cedar, Root, Zumbro, Cannon and Vermillion Rivers, in addition to Spring Valley Creek and other streams with severe flooding problems. An additional 2,000 acres are needed for wetland restoration elsewhere in the basin.

4. Groundwater Protection Zones

Resource Assessment -- 37,600 acres *Acreage Goal* -- 10,500

Vegetated buffers can offer significant protection of drinking water supplies, especially in karst areas of the basin with a high potential for groundwater contamination. The following three types of locations have been selected for special focus:

- Sinkhole Protection -- An estimated 1,500 acres are needed, based on a total of 5,990 sinkholes on farmland. Individual sinkholes can be protected with a 0.25 acre buffer; multiple sinkholes may require whole-field critical area seedings.
- Focused Recharge Zone at Decorah Shale outcroppings. This zone occurs throughout karst topography. Olmsted County has worked to identify, map and explore biological-filtering alternatives for this recharge zone for several years. Estimated acreage of cropland within this zone in Olmsted County alone is 16,000 acres. Our goal basinwide would be to secure half of this amount for permanent easements with perennial vegetation, or 8,000 acres.
- Wellhead Protection Areas. -- The Minnesota Department of Health estimates that 20,000 acres of cropland are part of wellhead protection areas that eventually will be delineated in southeastern Minnesota. In the near future, an estimated 1,000 acres of vegetated buffers could provide protection to drinking water within wellhead protection areas that include agricultural land.

Section 6: Cost Analysis

- Total Estimated Project Cost: \$225 million
 - Federal Portion: \$180 million
 - State Portion: \$45 million
 - Easement payments and cost share: \$34 million
 - Technical and Administrative Assistance, Education: \$11 million
- Costs Funded from Non-Federal Revenues – State funds will be used to match the federal funds used for this project. State funds will be approved by the state legislature through the Reinvest In Minnesota (RIM) program and will be targeted to basins that are able to leverage federal funds, such as CREP and WRP.
- Incentive Payment Justification based on Easement Flexibility

An integral aspect of this CREP proposal is to present landowners with a range of choices regarding duration of easement. This project will use state RIM funds to provide an added incentive to place easements on lands enrolled in the program beyond the 15-year period provided by Conservation Reserve Program payments. Landowners will be presented with the following range of options for easement duration: 20-year, 35-year, and permanent. Incentive payments will be increased as the duration of the easement is increased, in accordance with the increased environmental benefits provided by the longer easement periods. Given these landowner options, it is expected that permanent easements will be used primarily for wetland restorations, groundwater protection zones, and riparian zones, including flood plains. Likewise, it is anticipated that shorter-duration easements will be used for contour buffers on highly erodible land.

Also, RIM funds will be used to provide additional funds for the implementation of conservation plans. State funds are also used for technical and administrative costs for implementing the CREP.

- Farm Economic Data
 - Three-year average crop yields:

Average Crop Yields, 1998 - 2000					
	Corn (bu/a)	Corn Silage (tons/a)	Soybeans (bu/a)	Oats (bu/a)	Hay (tons/a)
1999	165	20.8	48	63	4.0
2000	153	19.3	44	66	3.9
2001	149	18.5	46	73	4.2
Average	156	19.5	46	63	4.0

- Three-year average of production costs: Total direct and overhead expenses, with labor and management (Source: Southeast Minnesota Farm Business Management Association, MNSCU)

Average Production Costs, 1998 - 2000				
	2000	1999	1998	Average
Corn (\$/bu)	1.99	2.04	2.00	2.01
Soybean (\$/bu)	4.67	4.70	4.81	4.73
Oats (\$/bu)	2.03	2.53	3.45	2.67
Hogs (\$/cwt)*	30.67	27.63	38.50	32.05
Cow-Calf (\$/cwt)	76.61	109.28	104.93	96.94
Milk (\$/cwt)**	11.23	11.54	12.01	11.60

*Finish Feeder Pigs. Data unavailable for 1998 – 1997 data used instead.

**Average cow. Data taken from 28 dairy operations with average of 100 cows and rolling herd average of 20,000 lbs/year milk production.

- Opportunity cost – net farm income foregone. The opportunity cost associated with converting land use from agricultural to conserving uses is equal to the discounted present value of the expected stream of future earnings net of production costs. Generally it is expected that market land prices reflect this cost. However, in southeastern Minnesota as in much of the Corn Belt, pure opportunity cost is obscured by large transfer payments from the federal government to farmers in accordance with the Federal Farm Program. According to the Southeastern Minnesota Farm Business Management Association, average net farm income was \$77,672 in 2000 for the 58 farms included in the annual report. The total of all government payments averaged \$50,496, or 65% of net farm income. This fraction would be higher for crop farms and less for livestock farms. Without government support payments, many farm operations would be reporting negative net income, and most would report very low incomes.

A second factor relevant to the calculation of opportunity cost is land productivity. In general, much land that is suitable for CREP will tend to be marginally productive for agriculture because of poor drainage or steep slopes, which are difficult to farm.

Therefore, considering the low to negative levels of income from crop and livestock farming, excluding transfer payments, together with the lower agricultural productivity of land targeted for CREP, it can be concluded that the opportunity cost of farmed land is generally low under current market conditions – considerably lower than current land rental rates and market prices.

Section 7: Monitoring Program

Three types of monitoring will be conducted to track progress against goals:

1. Ambient Stream Water Quality Monitoring. The purpose of this type of monitoring is to determine whether land-use changes are accomplishing the ultimate goal of water quality improvement. Such changes take a long time to verify, requiring a comparison of stream conditions before and after land use change implementation. The MPCA will coordinate this effort in cooperation with other state and federal agencies, Winona State University, and local governments involved in stream monitoring projects. Locations to include MPCA's Minnesota Milestone and USGS Long-Term Resource Monitoring Program sites, in addition to project-specific sites.
 2. Site-specific edge-of-field monitoring. Sediment boxes will be used above and below representative CREP practice sites such as contour buffers or riparian buffers to help determine the difference in sediment load.
 3. Pollutant-Load Reduction Estimates. The purpose of this type of monitoring is to track the enrollment of acres of specific buffer categories, along with an estimate of reductions in erosion and pollutant loads that are being achieved. The Board of Water and Soil Resources for several years has been using and refining an annual reporting system for local government use. It provides estimates of reductions in soil erosion and loads of sediment, phosphorus and nitrogen to surface water.
- Annual reports – SWCDs in the project area will submit annual reports on electronic reporting system. These reports will be summarized for the basin by the Board of Water and Soil Resources. These reports will detail the acreage enrolled in each buffer category, by conservation practice type, with estimates of reductions in soil erosion and loads of sediment, phosphorous and nitrogen to surface water.
 - Provision for Project Modification if objectives are not being met – The annual CREP report will be reviewed and discussed by the BALMM Landscape Buffer Committee each year. Program acreage and pollutant-reduction objectives will be compared against actual progress. Where discrepancies are identified, the BALMM Landscape Buffer Committee will develop and recommend strategies to strengthen, focus, or redirect the communication plan and direct marketing campaign, or other elements of the Landscape Buffer Initiative, in order to achieve desired goals and objectives. These recommendations will be forwarded to SWCD field offices and to staff responsible for CREP implementation.

Section 8: Public Outreach and Support

A direct indicator of farmer demand for buffer easements in the project area is their demand for far more enrollments from the RIM Reserve Program and Wetlands Reserve Programs than can be supported at current program funding levels. Currently, in the absence of any concerted effort to promote signups, there are requests for 122 RIM easements, 60 WRP easements and 53 EWP

easements that cannot be funded. An estimated \$18 million of additional funding, plus additional cost-share for site preparation, would be needed to implement these requests. The extensive public outreach effort that will be implemented as part of the BALMM Landscape Buffer Initiative is expected to generate vastly more interest by landowners.

In a sense, public outreach and support have been built into the BALMM Landscape Buffer Initiative from its inception early in 2001, because BALMM has served to involve local farmers, local elected officials, watershed projects, wildlife enthusiasts and government staff in its design. Now that the CREP proposal has taken shape, BALMM participants are involved in giving presentations to local government and civic groups, writing letters of support and offering suggestions on specific aspects of the CREP proposal and how it will be implemented. Through BALMM, such activities will be sustained over the duration of the CREP project, with special emphasis on outreach to farmers, farmland owners, and farm organizations.

Section 9: Development of Procedure

The basin local units of government have been working with state office staff from FSA, NRCS and the Minnesota Board of Water and Soil Resources during the development of this application to address procedural items as much as possible ahead of time. Upon approval of our CREP application, we will continue to work with those staff to fine-tune procedures and to evaluate procedures that have been used in the Minnesota River Basin CREP program in Minnesota. There is a good precedent already established in that basin with regards to procedures.

Section 10: Training of Staff

Nearly all NRCS, SWCD and FSA staff in the basin are trained and proficient in processing CRP contracts. Additionally, at least one staff person in each office is trained on processing RIM applications. This will provide a good base for implementing a CREP program in the basin. However, added technical staff will be needed to implement CREP. These will be funded with a combination of public and private funds. We will work with state office staff from FSA, NRCS and the Board of Water and Soil Resources to provide additional training to basin staff to prepare them for taking and processing CREP applications. With the majority of the basin staff already trained in the CRP and RIM programs, a smooth transition will be made into a CREP program.

We will also provide training to staff emphasizing our overall buffer goal for water quality, flow reduction, erosion control, forest improvement and habitat improvement as outlined in our Basin Plan Scoping Document and this CREP application. This will help to ensure that efforts are targeted to achieve the goals outlined in this application.

Section 11: Communication Plan

▪ Goals and Objectives:

Goal – Full enrollment of acreage goals in all four priority project areas by the conclusion of the project period.

Objectives – progressively work toward the following objectives:

1. Create widespread awareness among the public about the Landscape Buffer Initiative, its goals and key provisions.
2. Inform potential customers in targeted areas of the full range of options under the CREP program.
3. Develop landowner understanding on how they can take part in the buffer initiative by enrolling parts of their land.
4. Assist landowners in making informed decisions that will help them to achieve their own goals while also benefiting the environment.

▪ Motivators to Enrollment:

Owners and operators of farmland may be motivated by a number of factors to participate in CREP by enrolling their own land.

1. Information -- The first consideration is ensuring that eligible landowners are informed about CREP. It needs to be explained in clear and simple terms what the program offers and how they can get involved. Unless landowners are first adequately informed, they cannot become motivated to participate.
2. Legacy -- According to interviews conducted in the Minnesota River Basin, leaving a legacy of a better environment and improved wildlife habitat for children and future generations is a primal urge exhibited by landowners in the focus groups.
3. Economic Rewards -- In exchange for agreeing to convert farmed land to a conserving use for a specific time period, land owners will receive economic compensation in the form of annual CRP payments, a lump-sum RIM Reserve payment from the State of Minnesota, and cost-share funds to defray costs associated with site preparation and stand establishment. The total economic incentive to retire land must exceed the expected economic rewards of alternative land uses, usually continued cropping of the land.
4. Environmental Protection -- Landowners may be motivated by their concern for protecting the quality of the natural environment by reducing soil erosion, protecting the quality of surface- and ground-water, and providing habitat for wildlife. These attitudes may be influenced by peer groups and prevailing social norms.

1. Recreation Benefits – A third motivator is the opportunity to create additional opportunities for hunting, fishing, bird-watching, hiking or other outdoor activities on or near land that is set aside as a buffer strip or critical area seeding.
- Barriers to Enrollment:
 1. Insufficient or unclear information. If land owners are not aware of CREP, or have inadequate information, are confused about the application process or program provisions, or are misinformed, this will act as a barrier to enrollment.
 2. Insufficient economic rewards. Combined incentive payments may be insufficient to bid land away from competing uses. Landowners may expect higher payments to be available now or in the future from developers, other farmers, etc.
 1. Concerns about the Local Agricultural Economy. Farmers and others may be concerned that removing land from commercial farming will limit the farming potential of local producers, reduce the sum total of agricultural economic activity and utilization of the agricultural infrastructure (local elevators, etc), and reduce the property tax base.
 2. Lack of environmental concern. – Landowners may not be convinced that current farming practices are contributing to environmental problems, or that converting land to conserving uses will contribute significantly to environmental improvement.
 3. Lack of recreational interest. – Landowners may not be interested in outdoor recreation opportunities.
 4. A production ethic. Landowners who have invested in land drainage and clearing over years and decades to build a modern farming enterprise may deem it counterproductive or wasteful to devote their farmland to a conserving use rather than to commercial farm production.
 - Communication Tools and Materials: A communication strategy is needed to support the CREP project, consisting of the following elements:
 - Mass media – Announce the CREP project through daily newspapers, regional television and radio stations via a news conference. Mass media will be used to help create awareness and interest.
 - Farm media -- Through articles in Agri-News, the use of buffers in each of the four priority areas will be illustrated by case history stories. Case

history backgrounders will be sent to reporters with photos, key information, and local contacts. Reprints will be used for displays at meetings. This will help to increase farmer understanding of CREP and options available to them.

- Information aids – Mass media can only accomplish so much. Person-to-person communication in small meetings and one-on-one visits are essential to address specific landowner questions and concerns, and eventually "close the deal" with a solution that satisfies and landowner and environmental objectives of the CREP program. A variety of information aids can assist this essential interaction – fact sheets, brochures and videos, in addition to farm-specific information on eligible land, appropriate conservation practices, and estimated payment rates. Experience shows that technical staff armed with this kind of information are very effective in obtaining signups from interested farmers.
- Training: Minnesota has the benefit of a very popular CREP program in the Minnesota River Basin, which is adjacent to the Lower Mississippi River Basin. Technicians who have spent several years on CREP in the Minnesota River Basin will now share their experience with technical staff in this basin. Some will be asked to continue their CREP work here. The Minnesota Board of Water and Soil Resources, Natural Resources Conservation Service, Department of Natural Resources, and Minnesota Pollution Control Agency will collaborate in designing and delivering training to field staff. This will ensure that efforts in the field are effective in securing land enrollment in all four priority areas to achieve environmental objectives in water quality protection and restoration, hydrologic modification and habitat provision.

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**RED RIVER BASIN
CONSERVATION RESERVE ENHANCEMENT
PROGRAM**

**Submitted to the State of Minnesota and the
US Department of Agriculture**

Submitted by The Red River Basin Commission

July 29, 2003

Counties:

**Big Stone, Traverse, Grant, Ottertail, Clay, Norman, Becker, Mahnomen,
Clearwater, Polk, Pennington, Red Lake, Beltrami, Marshall, Kittson, Roseau,
Stevens, Wilkin**

Section 1: Abstract

Description of Project Area: The Red River Basin in Minnesota includes all or parts of 21 counties. It consists of a total of 18,800 square miles (12,000,000 acres) of land which is approximately half of the entire Red River Basin encompassing North Dakota, Minnesota, South Dakota and Manitoba. About 74 percent of the land area in the Red River Basin is agricultural of which 66 percent is cropland and 8 percent is pasture and rangeland. The remaining 26 percent of the land area consists of forests (12 percent), water and wetlands (4 percent), urban land (3 percent), and other categories (7 percent). The Glacial drift thickly mantles most of the basin and has left two distinct land forms; the very flat Red River Valley Lake Plain and Lake Washed Till Plain; and the gently rolling uplands.

Existing Conditions and Agricultural Impacts to be Addressed: Flooding disasters which degrade water quality, increase sedimentation and destroy fish and wildlife habitat are the major problem in the basin. The economic impacts from these floods have been large. In some areas of the basin, more localized flooding has prevented planting and/or harvesting of crops. The Red River basin is an extremely altered landscape. Human activities have straightened natural waterways and converted two-thirds of the landscape to cropland. Intensive agriculture production has impacted water quality, accelerated soil erosion and fragmented habitat resources.

Project Description: This proposal describes a Conservation Reserve Enhancement Program (CREP) developed cooperatively through the Red River Basin Commission with input from agency officials, resource professionals and stakeholders. This CREP application will focus on the Minnesota Flood Damage Reduction Work Group Mediation Agreement and its Natural Resource Enhancement component. The Red River Flood Damage Reduction Working Group is comprised of representatives of government and private groups. Over a 5 to 7-year period, the Red River Basin CREP will target 100,000 acres to flood damage reduction and natural resource enhancement projects for treatment to reduce flood damages with secondary benefits to be improved water quality and an increase of fish and wildlife habitat.

Size of Project Area and CRP Practices to be Installed: The basin comprises about 18,800 square miles (12,000,000 acres) in northwestern Minnesota in all or part of 21 counties. It is home to about 17,842 miles of streams and 668,098 acres of lakes, 66 percent of the land is currently under cultivation. CRP practices to be installed include: CP-21 (Filter Strips); CP-22 (Riparian Buffers); CP-25; (Rare and Declining Habitat); CP-23 (Wetland Restoration).

Total Number of Acres to be Contracted: 100,000 acres.

Estimated Cost of the Project: Approximately \$ ***** million over 15 years with \$ ***** million from the Federal Government and \$ ***** million from the State.

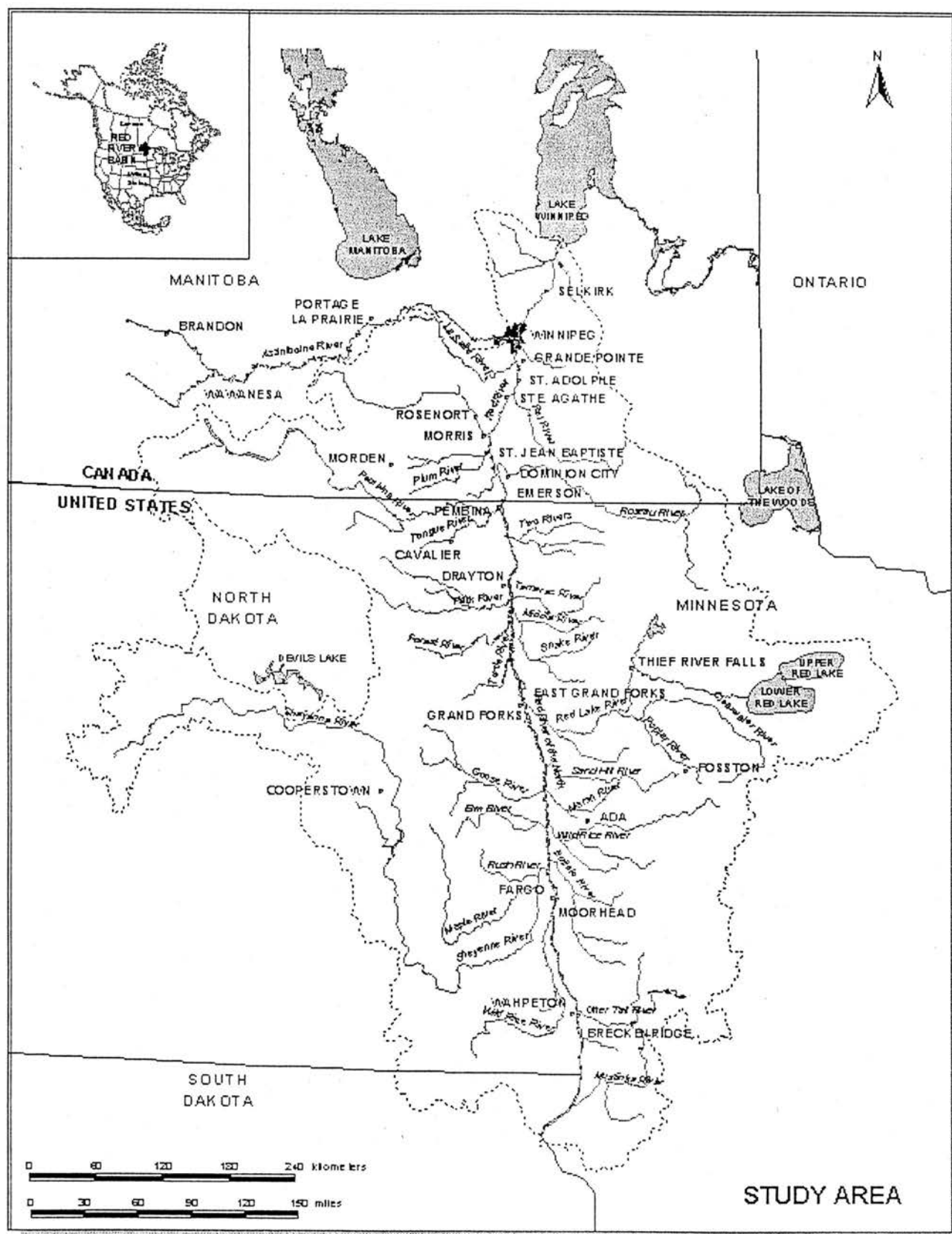
Section 2: Existing Conditions

State and National Significance: The project area is of state, national and international significance for many reasons. It is not only an interstate basin but also an international basin whose water quality can have negative downstream impacts on the Province of Manitoba and Lake Winnipeg. The project also possesses high recreational and wildlife value. The area has experienced flooding disasters and a range of natural resource problems that threaten the long-term health and vitality of its people, communities and farms. As in many other agricultural areas, the primary natural resource concerns here are soil erosion, poor water quality and the loss of wildlife habitat and biological diversity.

Many natural resource goals-reducing erosion, improving water quality, and re-establishing wildlife habitat-will be accomplished through integrated watershed projects. This CREP will target those integrated watershed projects and will provide numerous benefits to residents of the Red River Basin.

- o Impaired Reaches on the Federal 303d Listing: The MN Pollution Control Agency has identified 15 river or stream reaches in the Red River Basin as impaired. Reach impairments include turbidity, nutrients, and bacteria with reach length ranging from 10 to 100 miles. Another dozen stream reaches have been listed as not meeting designated uses due to biological integrity impairments. Several of these impaired reaches are upstream from critical municipal water intake structures including Grand Forks/East Grand Forks, Fargo/Moorhead, Thief River Falls and Fergus Falls.
- o Interstate/International Watershed: The Basin crosses the international boundary with Canada. Subsequently, water resource issues must adhere to the 1908 Boundary Waters Treaty. The International Joint Commission (IJC), through the International Red River Board, closely monitors water quality at the international border and reports annually to the U.S. and Canadian Federal Governments. Lake Winnipeg in Manitoba receives a significant amount of phosphorus from the Red River.
- o Frequent Flooding: Disasters in the Red River Basin have major impacts on the nation's financial and human resources. The Red River Basin has experienced several large-scale flood events over its recorded history. Recently, the flood of 1997 brought national attention to water management and policy issues in the Basin and resulted in over \$1.2 billion in flood relief from a variety of private, Federal, and State sources. From 1993 to 1997, flood damage expenditures in the Red River Basin were approximately \$421 million per year. This number does not include related expenditures such as poor water quality (i.e. elevated treatment costs), public ditch system maintenance, and damages to remaining wildlife habitat (Red River Basin Board 2000).

Figure 1. The Red River Basin



- o Tall Grass Prairie: The Red River Basin is part of the tall grass prairie of North America. This rare habitat type has nearly disappeared due to two main factors. Most of the tall grass prairie disappeared under the plow of early settlement. Much of the remaining prairie reverted to savannah and aspen parkland with the extermination of the bison and removal of fire from the ecosystem. CREP could allow for restoration of the functions and values of this rare and declining habitat type.
- o Prairie Pothole Region: The Red River Basin is also part of the Prairie Pothole Region. Much of the Prairie Pothole Region is highly suited for agriculture, as a consequence many potholes have been drained. This poses a serious threat not only to the prairie potholes themselves, but also the wildlife species that use that habitat. Solutions to address the loss of this habitat type range from protecting the remaining wetlands to restoring those wetlands that have been drained.

Human Activities and Land Use in the Basin: The Red River Basin in Minnesota includes all or parts of 21 counties in Minnesota. It consists of a total of 18,800 square miles (12,000,000 acres) of land. About 74 percent of the land area in the Red River Basin is agricultural of which 66 percent is cropland and 8 percent is pasture and rangeland. The remaining 26 percent of the land area consists of forests (12 percent), water and wetlands (4 percent), urban land (3 percent) and other categories (7 percent). The Glacial drift thickly mantles most of the basin and has left two distinct land forms; the very flat Red River Valley Lake Plain and Lake Washed Till Plain, and the gently rolling uplands. The flattest mineral sections of the basin are nearly all converted to row crop agriculture raising such crops as wheat, soybeans and sugar beats. On the eastern edge of the basin, where the topography becomes more rolling, there is a more diverse land use consisting of row crop farms, pastures, woodlands, and wetlands.

Farm Demographics: The agricultural sector is a major portion of the overall economy of the Red River Basin. From 1998 – 2000, over 5.5 million acres in the Red River Basin in Minnesota were planted in wheat, barley, sugar beets and soybeans. Recent government programs have been intensifying the conversion to a wheat and soybean rotation.

From 1992 to 1997, the average size of farms in MN increased from 342 acres to 354 acres. The percentage of full-time farmers in MN decreased 10 percent during this same period. The total acreage planted and harvested increased from 1987 to 1997(Census of Agriculture, State Profiles 1997).

Environmental Factors:

- o Precipitation: Annual precipitation in the Red River Basin is highly variable. Average precipitation increases as you move from west to east across the basin forming an increasing gradient averaging from 16 – 24 inches per year . MN contributes roughly 60 percent of the total mainstem Red River flows (Red River Basin Board 2000).

The region experiences temporal and spatial extremes in precipitation patterns. This variability causes great fluctuation in discharge measured along the mainstem of the Red River. Although flooding from spring runoff is often considered the most damaging; heavy summer rainfall events can and do occur frequently in the Red River Basin. These rainfall events often cause severe damage to emerging crops. Conversely, the Basin can experience periods of severe, prolonged drought such as the early 1980s and 1990s.

- o Soil: The source of mineral material in soils of the Red River Basin is primarily from glacial sediments. Surficial deposits more recent than glacial origin are wind-blown silts, sands, and river alluvium. Soils derived from the geologic deposits range from heavy, poorly drained clays and silts in the lake-bed areas to light, well-drained sands along beach ridges, outwash plains, and wind-blown deposits. Organic soils are common in depressional areas, especially in the lake-washed till plain area. Within the U.S. portion of the Red River Basin, there are eight major soil associations.

The majority of the land area in the Red River Basin is susceptible to severe wind erosion. Most of the Basin's soils are not classified as highly erodible; however, large amounts of sediment are transported to the regions streams and rivers each year both from in-stream sources and overland from sheet or rill erosion. Erosion is a function of land cover, soil type, and the forces of wind and/or water. In recent years, counties have spent millions of dollars maintaining and repairing ditch systems due to the wind and water erosion.

- o Important Geological Features: Morphologically, the most striking and important geological feature of the Red River Basin is its lack of relief. The basin has an average north-south slope of less than one-foot per linear mile. The relatively small topographic relief is a result of glaciation and geologically recent erosion. Glacial Lake Agassiz left clay-rich sediments in a flat lake plain along the axis of the Red River and a lake-washed till plain in the northeastern part of the Red River Basin. Ice sheet advances and recessions left upland moraines and large deposits of glacial drift over the entire basin area. As glacial Lake Agassiz receded left deposits of sand and gravel in the form of beach ridges. Glaciers and glacial meltwater also left elongated ridges of beach sands and gravels, and flat plains of outwash sands.
- o Vegetation Patterns: Historically, intermixed upland and wetland habitats provided a dynamic landcover mosaic that provided important landscape and watershed functions. These habitats consisted of meandered streams and rivers making up riparian areas with narrow gallery forests along the water's edge. Prairie consisted of tall native grasses (i.e., big bluestem, indiangrass, switchgrass). A transition zone, called savannahs, between these two areas is made up of grasses, trees, small shrubs, and numerous shallow wetlands.
- o Wildlife: For terrestrial animals such as the White-tailed Deer, Prairie Chicken and many song-bird species, the important habitat areas remaining in the basin

are floodplain forests and all areas of native vegetation, particularly those containing complexes or clusters of different plant communities. The three main basin ecosystems are typically referred to as the lakeplain, Agassiz beach ridge and the glacial moraines.

- Water Resources: Water resources in the Red River Basin range from excessive to scarce and are dependant on a number of (temporal and spatial) environmental and anthropogenic factors. Surface and groundwater resources are important as they are both used as sources of drinking water. Some of the larger municipalities such as Fargo/Moorhead, Grand Forks/East Grand Forks, Thief River Falls and Fergus Falls depend on the Red River and its tributaries for a portion of the drinking water supplied to its residents.

The foremost controllable variable of economically productive agriculture in the Red River Basin is adequate drainage. The basin's hydrology has been substantially altered during the past 100 years with a complex system of public and private drains designed to remove surface water from agricultural lands swiftly and effectively. The importance of these constructed/altered waterways cannot be overstated; however, in some cases, drainage activities may have exacerbated flooding in the receiving river and streams. Construction of water conveyance systems and stream channelization (i.e. "straightening") causes in channel degradation and accelerates the natural sediment transport process. Accelerating the sediment transportation processes damages aquatic and riparian habitat and negatively impacts water quality in most cases.

- Air Quality: Throughout the basin, ambient air quality is in attainment with criteria pollutants listed in state and federal regulations.
- Federally listed endangered and threatened species: There are 38 plant and animal species listed as endangered, 40 as threatened, and 95 species of concern in the Basin in Minnesota alone. Species of special concern include certain raptors and a mixture of upland and wetland plants. An overwhelming proportion of the species of concern and those considered rare, require habitats that have been altered. Many of these habitats have been altered or destroyed from human activity in the Red River Basin.

Section 3: Agriculture Related Environmental Impact

Magnitude of impacts: The primary natural resource concerns on farmland are soil erosion, poor water quality and loss of wildlife habitat diversity. Wind erosion is among the worst in the nation and results in loss of long-term soil productivity, clogged waterways, crop damage and water turbidity. Land use in the basin and frequent flooding has accelerated the impacts on the natural resources. Red River farmers play a crucial role in basin-wide efforts to improve natural resources and to reduce flood damages.

Past and Projected Future Trends in Agricultural Impacts:

The period of European settlement and clearing of the land for agriculture production brought profound changes to the landscape. As the new population expanded, highways and towns were built, prairies were plowed for grain production and the increased run-off and eroded topsoil were shunted off downstream. The Red River ox cart and steamboat played important transportation roles in the settlement of the basin. It was the advent of the railroad in the basin in 1878 that really opened the basin to settlement. The railroad also allowed for the expansion of farming due to the ability to transport new farming technologies.

In the 1890's more and more land was put into agriculture production. The major reason for undeveloped land remaining out of agriculture production at that time was the lack of drainage. Several aspects of the drainage problem are worth noting: 1) The manner in which the Red River Valley is farmed today is a direct result of the drainage works that were installed over the years; 2) without drainage, substantial sections of the valley would still be permanent wetlands; 3) farmland which is now wet on only and intermittent basis would be subject to longer and more frequent wet conditions if existing drainage features were removed; 4) drainage continues today; and 5) drainage is yet viewed by many to be the major cause of flooding in the Red River Basin. As drainage continued to be done in the late 1800's and early 1900's, more and more land was put into cultivation until upwards of 70 percent of the basin was under the plow.

In response to problems related to a lack of conservation, the Soil Erosion Service was established in the 1930s, which later became the Soil Conservation Service and today is the Natural Resources Conservation Service. Soil and Water Conservation Districts were established in counties. Federal funding was made available for the design and construction of soil conservation practices such as the PL-566 program. Gradually, as conservation practices were widely installed, and farmers became more conscious of the need to control erosion, soil erosion and associated problems of flooding, stream channel disturbance and degraded water quality began to subside.

During the past three decades dramatic changes have taken place in both the technology of agriculture and the structure of farming which have had a mixed influence on soil conservation, water quality and wildlife habitat. New technologies such as mechanization, commercial fertilizer and synthetic pest control agents began to be introduced shortly before and following World War II. At first, farmers adopted these technologies to their existing operations, which were diversified crop and livestock enterprises. Land use remained similarly diverse, with hay, pasture and woodland complementing production of corn and small grains. However, by the 1970s, farming in Red River Basin began following national trends of specialization and expansion which have persisted through the present.

Land use trends indicate that environmental problems may worsen in future years as farms become fewer, larger and less diverse; field sizes continue to grow; farms continue to be less diverse and artificial drainage continues at a rapid pace. Agricultural scientists and leaders as well as natural resource managers are becoming alarmed at these trends,

and question whether the current trend is environmentally sustainable. The current trend, if continued, will maintain high levels of run-off laden with sediment and nutrients.

Nature of Health-Related Impacts:

As stated previously, a portion of the basins drinking water is derived directly from the main stem of the Red River making efforts to protect water quality extremely important. Based on the rivers use for drinking water and other recreational uses, following is a listing of the health related impacts of agriculture on the basin.

Fecal coliform bacteria: High concentrations off fecal coliform bacteria have been documented in several reaches of the Red River and its tributaries. Exceedances of the health standard of 200 organisms per 100 ml water sample are documented regularly. Elevated levels of fecal coliform bacteria may be caused by agricultural or urban runoff as well as other naturally occurring sources. These exceedances have caused several reaches of the Red River and its tributaries to be listed on the impaired waters lists of Minnesota. These listings are for both recreation and human consumption.

Nitrate nitrogen: High concentrations of nitrate nitrogen (NO_3) in drinking water pose a threat to human health, which is why the federal standard for NO_3 in drinking water has been established at 10 mg/L. The greatest threat of nitrate nitrogen is to infants, which may develop a condition known as methemoglobinemia (blue baby syndrome) as a result of ingesting excessive amounts of nitrate nitrogen. Cases of methemoglobinemia in Minnesota and other Midwestern states have been associated with high levels of nitrate in well water.

Past, Ongoing and Projected Future Efforts to Address Agricultural Impacts:

A major effort in soil conservation starting in the 1930s resulted in the implementation of conservation practices broadly across the landscape. Current efforts by local, state and federal soil conservation programs have reduced soil erosion, runoff, flooding and water quality.

This CREP will be utilized by watershed organization project teams. The watershed organization project teams consist of representatives of federal (NRCS, FSA, USFWS); state (BWSR, DNR, MPCA) and local (counties, SWCD's, cities) units of government as well as private conservation organizations and landowners. These project teams will target CREP acres to identified priority areas. This Red River CREP will provide a means of addressing natural resource enhancement and flood damage reduction goals that does not currently exist and helps build upon a commitment to work cooperatively on a watershed basis.

Section 4: Project Objectives

This Red River Basin CREP will address natural resource enhancement (water quality, sedimentation, wildlife habitat) and flood damage reduction goals. Implementing a CREP targeting these issues will provide numerous benefits to residents of the Red River Basin and the Federal Government.

The focus for this CREP application will be the mediation agreement developed by the Minnesota Flood Damage Reduction Work Group. The mission of the Red River mediation is to reach consensus on long-term solutions for reducing flood damage and for protection and enhancement of natural resources. Such agreements should balance important economic, environmental and social considerations. The mediation agreement was intended as the framework for a new, collaborative approach to implementing both natural resource protection and enhancement and flood damage reduction in the Red River Basin. Chronic flood-prone areas identified by local watershed organizations can utilize this CREP application to address flood damage reduction with natural resource enhancement goals.

Local watershed organizations utilize project teams to implement specific priority projects. Local project teams are made up of watersheds; state, federal and tribal agencies; local units of government; affected landowners and interested citizens and interest group representatives. The buffer strip and wetland restoration components of this CREP application will address natural resource enhancement and flood damage reduction issues in priority areas.

By targeting local natural resource enhancement and flood damage reduction projects, we will be utilizing a process that is selecting projects that will have the biggest impact in improving water quality, reducing sedimentation, increasing wildlife habitat and reducing the impacts of flooding. As required by the Flood Damage Reduction Mediation Agreement, these projects will also have a monitoring component that will allow for the long-term evaluation of the effects of the implemented project.

The natural resource enhancement goals and flood damage reduction goals of the mediation agreement are as follows. Bolded and italicized goals are directly addressed with the practices proposed in this application.

Broad goals for natural resource enhancement in the Basin include:

1. *Manage streams for natural characteristics*
2. *Enhance riparian and in-stream habitats*
3. *Provide diversity of habitats*
4. *Provide connected, integrated habitat including compatible adjacent land uses*
5. *Provide recreational opportunities*
6. *Improve water quality*

Broad goals for flood damage reduction in the Basin include:

1. Prevent loss of human life.
2. Prevent damage to farm structures, homes & communities.
3. *Reduce damage to farmland.*
4. Reduce damage to transportation.
5. Reduce damage to water quality from flood waters coming into contact with potential contaminants.
6. *Reduce environmental damage caused by flood control projects.*

7. Reduce social and economic damage. and
8. *Reduce damage to natural resource systems caused by flooding.*

The strategies this Red River Basin CREP will utilize to address the goals include: Wetland Restorations (including flood storage restorations), River corridor restorations, Setback levees, and Riparian buffer strips via established Technical Standards, standard numbers 391, 393 & 657 and CRP conservation practices, CP 21, 22 and 23.

Enhancement of the established CRP conservation practices list will be required to encompass these standards.

Improved Water Quality:

Reduce Turbidity- Suspended in-stream sediment originates from erosion and transport (i.e. sheet, rill, and/or wind erosion) of upland soils in agricultural areas and in-stream degradation processes (i.e. bank and bed erosion). Sediment transport is a natural function of all rivers and streams. However, the amount of erosion and subsequent sedimentation increases because of anthropogenic alterations to the landscape. The Natural Resources Conservation Service estimates the Red Lake and Thief River Watersheds (1,916 miles²) alone transport 53,900 tons of sediment each year to their respective rivers.

Reduce Phosphorus- Lake Winnipeg in the Province of Manitoba, is the outlet for the Red River. Approximately 60% of the phosphorus load in Lake Winnipeg came from the U.S. Portion of the Red River from 1975 to 1988 (Brigham et al 1996).

Reduce Fecal Coliform Bacteria- Long-term monitoring of fixed sites in the basin demonstrate widespread exceedence of the water quality standard for fecal coliform bacteria. Concentrations often exceed the standard used by state sanitarians to close beaches, which is 200 organisms per 100 ml water sample. This is an indication that too much fecal matter is entering the stream. Although it is not direct evidence of pathogens in the water, it does indicate a potential threat to public health. Municipalities in the basin take drinking water directly from the Red River making fecal coliform bacteria reduction even more important.

Increase in the Quantity and Quality of Fish and Wildlife Habitat: By selecting the appropriate native grasses, increase wildlife habitat in proportion to the increase in acreage of perennial vegetation.

The Red River Basin CREP will provide a meaningful tool to target frequently flooded Red River Basin lands for retirement and provide the amount of economic incentives necessary to convert these lands to more ecologically friendly uses. Our challenge is to find ways to deliver a permanent fix to eliminate damages on chronically flooded lands. These "fixes" will also improve water quality and provide wildlife habitat. One obvious way to accomplish this is through perpetual easements and acquisitions.

The Red River Basin Board recently completed a two-year effort to develop a series of Inventory Reports describing natural resource issues in nine different subject categories. Over 100 individuals from throughout the Red River Basin were involved in this effort through the Inventory Report Teams. Inventory Teams were established to compile reports on Water Supply, Fish Wildlife and Outdoor Recreation, Water Quality, Conservation, Water Institutions, Water Law, Hydrology, Drainage, and Flood Damage Reduction. In conjunction with the report development process, goals and objectives to address pressing issues in these resource categories were also developed. The goals and objectives were further refined with input from basin residents in a series of face-to-face meetings during 2000 and adopted by the Red River Basin Board early in 2001. The Goals and Objectives represent the desired future for residents of the Red River Basin in areas of Conservation, Fish, Wildlife and Outdoor Recreations and Water Quality (Red River Basin Board 2000). Each will be directly and positively impacted through the implantation of the Red River Basin CREP and directly related to the stated goals of the program.

- Reduce flood damages in the Red River Basin through a watershed approach
- Advance a conservation ethic in the Red River Basin to support the delivery of conservation programs for all lands in the Red River Basin.
- Ensure that water quality is protected to meet designated beneficial uses of all Red River Basin waters.
- Support and encourage efforts to provide a diversity of habitats in size, shape and connectivity for stable and diverse fish and wildlife populations to thrive in the long-term and provide a host of landscape and societal benefits.
- Support conservation, management and restoration of diverse and viable native fish and wildlife populations associated with tall-grass prairie, wetlands, woodlands, and riparian habitats.
- Support the enhancement and development of recreational activities, infrastructure and access to the Basin's natural resources while improving the quality of life and growth of a flourishing tourism industry in the Red River Basin.
- Develop and encourage opportunities for environmental education and public awareness in order to foster implementation of holistic management and stewardship of the natural resource base.

A Red River Basin CREP provides a unique opportunity to address resource management issues on a scale necessary to achieve some of these basin-wide goals while safeguarding the interests of agricultural producers through voluntary involvement in the program. The Program will assist in developing plans to address continued agricultural prosperity along with the restoration and development of a landscape that functions to address resource management problems related to flood damage reduction, water quality, and habitat. Addressing these problems not only resolves issues surrounding the needs of fish and wildlife resources, it also provides a mechanism to provide a measure of economic stability to the region's farmers. A focused Red River Basin CREP will safeguard agriculture, allow for economic growth, provide for wildlife resource

enhancement, promote a tourism industry, and perpetuate a quality human environment in the Red River Basin.

Over a five to seven year period, the program expects to enroll 100,000 acres in the program using a number of land treatments.

Section 5: Project Description

Environmental Criteria and Conservation Practices

All lands to be enrolled in this program must meet the eligibility criteria set forth at 7 C.F.R. Part 1410, and must also meet both the location criteria and the practice criteria described below.

Location Criteria: All lands enrolled must meet one of the following four criteria:

1. Riparian Zones(60,000 acres): Riparian buffer and filter strip land along intermittent and permanent water courses in the project area are eligible. They shall be limited to cropland only. NRCS standards 390, 391 and 393 will be used to implement these practices. Riparian Herbaceous Cover for CP-22 will be allowed in the Tallgrass Prairie region (Zones 5 and 6 in the MN DNR Tree Rating Zones and Ecological Subsections publication) if the following conditions are met: the Tryg Maps and the Original Vegetation Map of Minnesota both indicate the native vegetation in the offered area to be tallgrass prairie.
2. Wetland Restoration Sites(40,000): The National Food Security Act Manual and the Federal 1987 Wetland Delineation Manual will be used to define and delineate wetlands. Restored wetlands of 10 acres or more may have an upland to wetland ratio of up to 2:1. Restored wetlands of less than 10 acres may have an upland to wetland ratio of up to 4:1.

CRP conservation practices to be adopted: The following CRP conservation practices will be used in combination to address the resource needs identified in this application.

- CP-21 Filter Strip
- CP-22 Riparian Buffer (only on existing cropland)
- CP-23 Wetland Restoration
- CP-25 Rare and Declining Habitat

Note #1: Allowable Widths for Filter Strips, Riparian Herbaceous Cover and Riparian Forest Buffers.

- Filter Strips- Minimum width = 33 feet
Maximum width = 120 feet
- Riparian Herbaceous Cover- Minimum width = 33 feet
Maximum width = 250 feet
- Riparian Forest Buffer- Minimum width = 33 feet
Maximum width = 250 feet

- Combining CP-25 (Rare and Declining Habitat) with any of the above practices with allow the maximum width to go to 600 feet.

Number of acres proposed to be contracted in the CREP agreement: 100,000 acres

Length of time for project implementation: This project will take applications from landowners for five years, therefore, we will need to secure five year of funding. We will use an additional two years to complete implementation of conservation practices.

Analysis of the likelihood that project objectives will be met: For the following reasons, the likelihood that objectives will be met is thought to be high:

- The Minnesota River Basin CREP project has achieved its signup objective of 100,000 acres well ahead of schedule.
- Watershed organization project teams for the individual natural resource enhancement and flood damage reduction projects are established and will provide local oversight to select the highest priority sites to utilize CREP acres.
- Enthusiasm of local units of government and landowners for additional funding for landscape buffers is very high based on input received at two regional meetings held in Minnesota. These meetings were held prior to the development of this application to gauge interest in the program.
- Acreage goals are based on a realistic assessment of environmental need, landowner interest and the ability of local agencies to deliver needed technical assistance within the project period, provided that additional resources are provided for this purpose.
- Well-functioning, inter-agency collaboration through the Red River Basin Commission will continue through the CREP project.
- Geographic Information Systems will be combined with hydrologic and water quality analysis to identify high priority areas that offer maximum environmental benefits.

Interagency Coordination Eligible acres will be determined by the project teams of the watershed organizations. The eligible acres must be part of an approved natural resource enhancement and flood damage reduction project. The project teams will prioritize which projects will utilize CREP and the local SWCD and USDA office will receive applications from landowners in the project area. Eligibility will be determined in cooperation with the USDA Farm Service Agency to ensure that each application meets the requirements as outlined in the CREP agreement. The soil and water conservation districts, Natural Resources Conservation Service, and Minnesota Department of Natural Resources, with existing and supplemental staff will do technical assistance and conservation plan development. Contract compliance will be conducted with the same inspection process used under CRP. Regular inspections will be conducted during the first three years after plan implementation to ensure establishment of practices, and at regular intervals after that to ensure contract compliance.

Section 6: Cost Analysis

Total Estimated Project Cost: \$ ***** million

- Federal Portion: \$ ***** million
- State Portion: \$ ***** million
 - Easement payments and cost share: \$ million
 - Technical and Administrative Assistance, Education: \$ million
- Costs Funded from Non-Federal Revenues – State funds will be used to match the federal funds used for this project. State funds will be approved by the state legislature in Minnesota. We will also utilize local funds raised to implement natural resource enhancement and flood damage reduction projects as a local match to the federal funding.
- Incentive Payment Justification based on Easement Flexibility
 An integral aspect of this CREP proposal is to present landowners with a range of choices regarding duration of easement. This project will use state funds to provide an added incentive to place easements on lands enrolled in the program beyond the 15-year period provided by Conservation Reserve Program payments. Landowners will be presented with the following range of options for easement duration: 20-year; 50-year, and permanent. Incentive payments will be increased as the duration of the easement is increased, in accordance with the increased environmental benefits provided by the longer easement periods.

State funds are also used for technical and administrative costs for implementing the CREP.

The cost estimates presented are provided to give the States a general idea of what the RRB CREP will cost given a number of assumptions. Total program cost is estimated at \$132.4 million. During the development of this proposal, it was clear that landowners and State officials desired additional contract easement lengths of shorter duration than perpetual. Accordingly, contracts of less than perpetual can and should be offered. If desired, agreements can be formulated that include a range of less-than-perpetual easement options as they develop the program details with the Farm Service Agency. Regardless, the stated goals of the program should drive the length of easement prioritized and the type of practice applied. Efforts must be coordinated between the state entities to ensure program goals are being met and appropriate practices and term of easements are being promoted.

▪ Farm Economic Data

Average Crop Yields, 1998 - 2000					
	Corn (bu/a)	Wheat (bu/a)	Soybeans (bu/a)	Sugar Beets (tons/a)	Hay (tons/a)
1998	109	38	30	19	2.1
1999	100	49	32	22	2.4
2000	115	43	32	18	2.4
Average	108	43	31	20	2.3

Three-year average of production costs: Total direct and overhead expenses, with labor and management,

Average Production Costs, 1998 - 2000				
	2000	1999	1998	Average
Corn (\$/bu)	2.08	1.93	1.88	1.96
Soybean (\$/bu)	4.59	4.54	4.30	4.76
Wheat (\$/bu)	2.84	2.72	2.37	2.64

- Opportunity cost – net farm income foregone. The opportunity cost associated with converting land use from agricultural to conserving uses is equal to the discounted present value of the expected stream of future earnings net of production costs. Generally it is expected that market land prices reflect this cost. Average net farm income was \$108,628 in 2001 for the 239 farms included in the annual report. The total of all government payments averaged \$85,881, or 79% of net farm income. This fraction would be higher for crop farms and less for livestock farms. Without government support payments, many farm operations would be reporting negative net income, and most would report very low incomes.

A second factor relevant to the calculation of opportunity cost is land productivity. In general, much land that is suitable for CREP will tend to be marginally productive for agriculture because of poor drainage and frequent flooding, which makes the land difficult to farm.

Therefore, considering the low to negative levels of income from crop and livestock farming, excluding transfer payments, together with the lower agricultural productivity of land targeted for CREP, it can be concluded that the opportunity cost of farmed land is generally low under current market conditions – considerably lower than current land rental rates and market prices.

Section 7: Monitoring Program

As part of the Flood Damage Reduction Work Group Mitigation Agreement, monitoring is required for projects that are implemented as part of the agreement. This monitoring will provide long-term information on the effects of these projects.

Other types of monitoring will be conducted to track progress against goals:

1. Ambient Stream Water Quality Monitoring. The purpose of this type of monitoring is to determine whether land-use changes are accomplishing the ultimate goal of water quality improvement. Such changes take a long time to verify, requiring a comparison of stream conditions before and after land use change implementation. The Minnesota Pollution Control Agency will coordinate this effort in cooperation

with other state and federal agencies, and local governments involved in stream monitoring projects.

2. Site-specific edge-of-field monitoring. Sediment boxes will be used above and below representative CREP practice sites such as filter strips or riparian buffers to help determine the difference in sediment load.
3. Pollutant-Load Reduction Estimates. The purpose of this type of monitoring is to track the enrollment of acres of specific buffer categories, along with an estimate of reductions in erosion and pollutant loads that are being achieved. The Board of Water and Soil Resources for several years has been using and refining an annual reporting system for local government use. It provides estimates of reductions in soil erosion and loads of sediment, phosphorus and nitrogen to surface water.

Annual reports – Field Offices in the project area will submit annual reports on an electronic reporting system. These reports will be summarized for the basin by the Board of Water and Soil Resources and Farm Service Agency. These reports will detail the acreage enrolled in each buffer category, by conservation practice type, with estimates of reductions in soil erosion and loads of sediment, phosphorous and nitrogen to surface water.

Provision for Project Modification if objectives are not being met – The annual CREP report will be reviewed and discussed by the Red River Basin Commission each year. Program acreage and pollutant-reduction objectives will be compared against actual progress. Where discrepancies are identified, the Commission will develop and recommend strategies to strengthen, focus, or redirect the communication plan and direct marketing campaign, or other elements of the CREP, in order to achieve desired goals and objectives. These recommendations will be forwarded to SWCD and NRCS field offices and to staff responsible for CREP implementation.

Section 8: Project Outreach and Support

The Red River Basin CREP has received broad support from a variety of State agencies, stakeholder groups, and local government. The Red River Basin Commission decided to initiate development of a Basin CREP proposal at their December 13, 2001 meeting in Grand Forks, ND. The Red River Basin Commission is an international, not-for-profit organization, formed to initiate a comprehensive stakeholder effort to address water issues in the Red River Basin. The RRBC is dedicated to wise and innovative watershed management of the Basin's resources and comprised of members representing basin cities, State and Federal Agencies, State and Federal Government, cities, counties, rural municipalities, watershed boards, water resources districts, joint powers boards, First Nations, and other local interests.

Through its Communication Committee, the RRBC has the capacity to develop a marketing plan and deliver implementation tools for local Soil and Water Conservation Districts. The RRBC Communication Committee has already developed media awareness tools for buffer strip implementation in the Red River Basin. Using similar programs in MN as models, the Committee will develop similar products for the Red

River Basin CREP to ensure landowners are aware of the program and the targeted acreage is enrolled. The marketing plans and techniques developed for the Minnesota River CREP program have been effective. The Communications Committee will further develop these proven marketing strategies to implement an effective program in the Red River Basin. Those implementing CREP will also take advantage of local producer groups meetings to promote the program to landowners.

Section 9: Development of Procedures

The basin has been working with state office staff from Farm Service Agency, Natural Resources Conservation Service, and the Minnesota Board of Water and Soil Resources during the development of this application to address procedural items as much as possible ahead of time. Upon approval of our CREP application, we will continue to work with those staff to fine tune procedures and to evaluate procedures that have been used in the Minnesota River Basin CREP programs in Minnesota. There is good precedent already established in that basin with regards to procedures.

Section 10: Staff Training

NRCS, FSA, SWCD staff are trained and proficient in processing CRP contracts. Additionally, at least one person in each office is trained on processing RIM applications. This will provide for a good base for implementing a CREP program in the basin. However, added technical staff will be needed to implement CREP. These will be funded with a combination of public and private funds. We will work with state office staff from FSA, NRCS, Minnesota Board of Water and Soil Resources to provide additional training to basin staff to prepare them for taking and processing CREP applications. With the majority of the basin staff already trained in CRP, a smooth transition will be made into the CREP program.

We will also provide training to staff emphasizing our overall buffer goal for reducing flood damage, improving water quality and improving wildlife habitat as outlined in the basin plan. This will ensure that efforts are targeted to achieve the goals outlined in this application.

Section 11: Communications Plan

Goals and Objectives

Our goal is to have full enrollment of acreage goals by the conclusion of the project period.

Objectives

1. Create widespread awareness among the public about the goals and key provisions of the CREP program in the Red River Basin.
2. Inform potential customers of the full range of options under the CREP program.

3. Develop landowner understanding on how they can take part in the program by enrolling their land.
4. Assist landowners in making informed decisions that will help them to achieve their own goals while also benefiting the environment.

Motivators to Enrollment

Owners and operators of farmland may be motivated by a number of factors to participate in CREP by enrolling their own land.

1. Information-The first consideration is ensuring that eligible landowners are informed about CREP. It needs to be explained in clear and simple terms what the program offers and how they can get involved. Unless landowners are first adequately informed, they cannot become motivated to participate.
2. Legacy-According to interviews conducted in the Minnesota River Basin, leaving a legacy of a better environment and improved wildlife habitat for children and future generations is a primal urge exhibited by landowners in the focus group.
3. Economic Rewards-In exchange for agreeing to convert farmed land to a conserving use for a specific time period, land owners will receive economic compensation in the form of annual CRP payments, a lump sum easement payment and cost-share funds to offset costs associated with site preparation and stand establishment. The total economic incentive to retire land must exceed the expected economic rewards of alternative land uses, usually continued cropping of the land.
4. Environmental Protection-Landowners may be motivated by their concern for protecting the quality of the natural environment by reducing soil erosion, protecting the quality of surface and groundwater and providing wildlife habitat. These attitudes may be influenced by peer groups and prevailing social norms.
5. Recreational Benefits-A third motivator is the opportunity to create additional opportunities for hunting, fishing, bird watching, hiking or other outdoor activities on or near land that is set aside as a buffer strip.

Barriers to Enrollment

1. Insufficient or unclear information-If landowners are not aware of CREP, or have inadequate information, are confused about the application process or program provisions, or are misinformed, this will act as a barrier to enrollment.
2. Insufficient economic rewards-Combined incentive payments may be insufficient to bid land away from competing uses. Landowners may expect higher payments to be available now or in the future from developers, other farmers, etc.
3. Concerns about the Local Agricultural Economy-Farmers and others may be concerned that removing land from farm production will limit the farming potential of local producers, reduce the sum total of agriculture economic activity and utilization of the agricultural infrastructure (local elevators, etc.) and reduce the property tax base.

4. Lack of Environmental Concern-Landowners may not be convinced that current farming practices are contributing to environmental problems or that converting land to conserving uses will contribute significantly to environmental improvement.
5. Lack of Recreational Interest-Landowners may not be interested in outdoor recreation opportunities.
6. A Production Ethic-Landowners have invested in land drainage and clearing over the years and decades to build a modern farming enterprise may deem it counterproductive or wasteful to devote their farmland to a conserving use rather than to commercial farm production.

Communication Tools and Materials

1. Local Newsletters-Local FSA, NRCS and Conservation District offices put together periodic newsletters to inform their landowners of current events. These newsletters will provide an opportunity to promote the program at the local level.
2. Mass Media-Announce the CREP program through daily newspapers, regional television and radio stations via a news conference. Mass media will be used to help create awareness and interest.
3. Farm Media-Through articles in ag publications, the use of buffers will be illustrated by case history stories. Case history backgrounders will be sent to reporters with photos, key information and local contacts. Reprints will be used for displays at meetings. This will help to increase farmer understanding of CREP and options available to them.
4. Information Ads-Mass media can only accomplish so much. Person-to-person communication is small meetings and one-on-one visits are essential to address specific landowner questions and concerns, and eventually "close the deal" with a solution that satisfies landowner and environmental objectives of the CREP program. A variety of information ads can assist this essential interaction-fact sheets, brochures and videos, in addition to farm-specific information on eligible land, appropriate conservation practices, and estimated payment rates. Experience shows that technical staff armed with this kind of information are very effective in obtaining signups from interested farmers.

SOUTHWEST MINNESOTA CONSERVATION RESERVE ENHANCEMENT PROGRAM APPLICATION

**Provide
Rural
Opportunities
To
Enhance,
Conserve, &
Treasure**

Counties:

Cottonwood, Jackson, Lincoln, Lyon, Martin,
Murray, Nobles, Pipestone, and Rock



1. Abstract

Description of Project Area

The SW MN CREP proposal area encompasses two watersheds: the Missouri River w and the Des Moines River w. Approximately 2.1 million acres are drained by the two watersheds in which a majority of the land use is cultivated land, hay land and pasture.

Existing Conditions

The proposal area has degraded water quality due to increased crop production, lack of education, and lack of funding to make changes. Farm sizes are increasing and actual farm numbers are decreasing. The trend has been a slow conversion of small family farms to larger corporate operations. Nutrients, sediment, and bacteria are polluting lakes and rivers causing decreased tourism, recreational value and aesthetics as well as health problems. Also thousands of miles of subsurface drainage has taken place on the landscape, causing water to enter receiving waters more quickly and with more energy causing bank erosion and flooding.

Project Description

As the Minnesota River Conservation Reserve Enhancement Program (CREP) drew to a close, many landowners, producers, and agency personnel began asking whether it would be possible to have a CREP for the Des Moines River and Missouri River watersheds. A work team identified four issues of concern: water quality of lakes and rivers, adequate drinking water, endangered species protection and habitat enhancement for fish and wildlife. From the issues of concern three priorities were developed: riparian corridor protection and restoration, wellhead protection and wetland restorations. Letters of support were requested from the Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), Soil and Water Conservation Districts (SWCD), Environmental Offices, U.S. Fish and Wildlife Service (USFWS), Department of Natural Resources (DNR), and watershed districts in the nine county area (Lyon, Lincoln, Rock, Nobles, Pipestone, Murray, Cottonwood, Martin and Jackson). and 100 percent support was achieved from these supporting agencies.

Acres, CRP Practices and Costs

The SW MN CREP proposal area has 1.8 million tillable acres of which 4.4 percent are currently enrolled in a conservation program. SW MN CREP would target 1.6 percent of the tillable land that is currently farmed or 30,000 acres (18,000 acres for riparian corridor protection and restoration, 3,000 acres for wellhead protection, and 9,000 acres for wetland restoration). It was estimated that there is a resource need of 447,000 acres. The CRP practices to be implemented are CP-2, CP4D, CP-12, CP-21, CP-22, CP-23, CP-25, and CP-27/28. The estimated cost on implementing SW MN CREP is \$70 million over 15 years, with \$54 million from federal and \$16 million from state funding.

2. Existing Conditions

Significance of Area

The SW MN CREP proposal area is nationally recognized for its fertile soils that produce a portion of the nation's corn and soybeans. It is an area that has a very limited adequate drinking water supply, degrading water quality and an endangered fish species. Southwest Minnesota is also noted for its pheasant population, designated canoe route and a portion of the prairie passage which extends from Texas to Canada. There are 20 sections of rivers in the proposal area that are recognized by the Minnesota Pollution Control Agency (MPCA) and the Environmental Protection Agency (EPA) as "impaired waters". The US Fish and Wildlife Service (USFWS) designated the prairie pothole region as the Northern Tallgrass Prairie Refuge which encompasses the SW MN CREP proposal area. Heron Lake, a shallow waterfowl lake known as the "Chesapeake of the West" also falls in the proposal area.

Land use

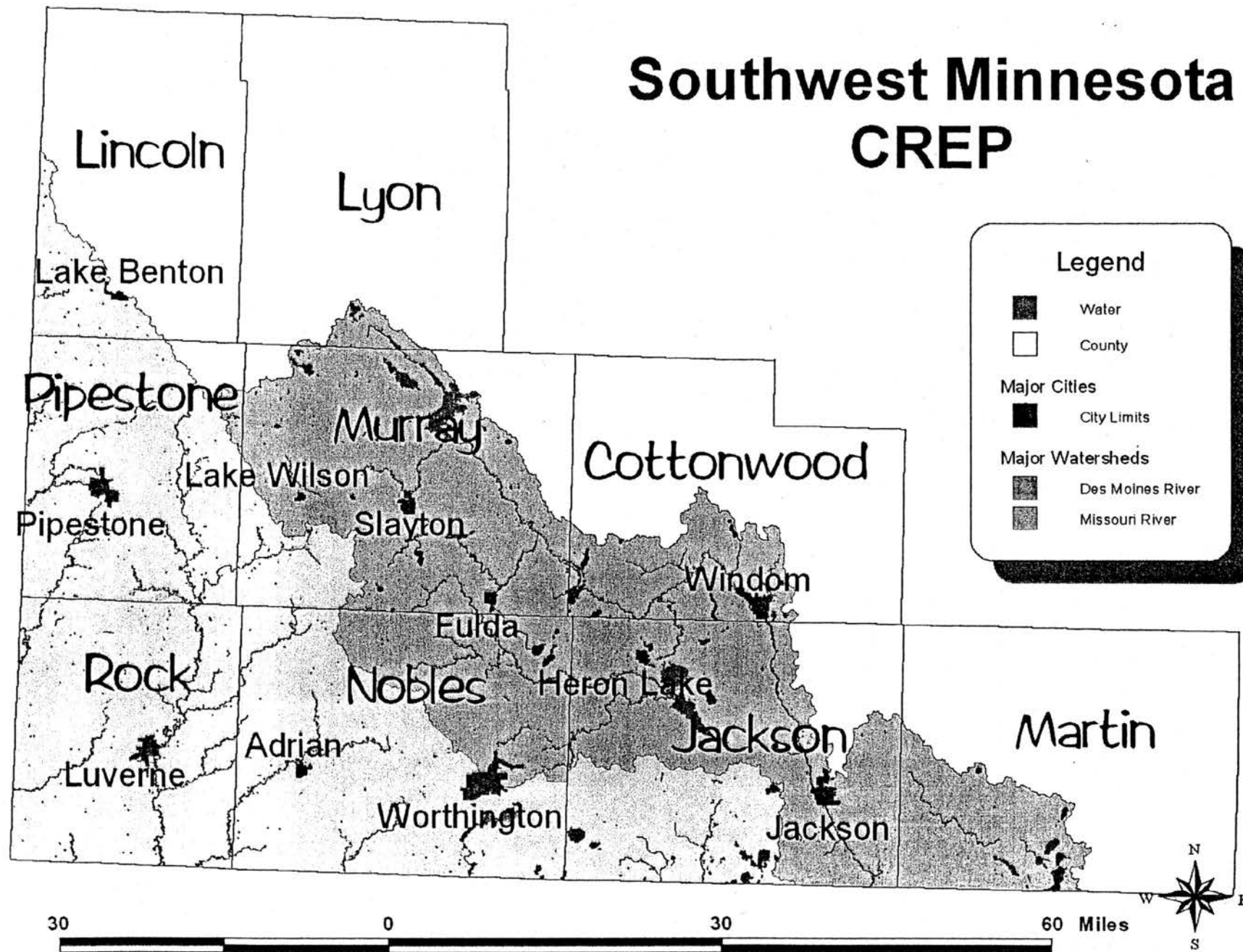
The SW MN CREP area consists of two watersheds: Missouri River watershed and the Des Moines River w. Please see Figure 1. The Missouri River watershed drains approximately 1,140,547 acres and has several smaller tributaries that drain to South Dakota and Iowa. The majority of the land use is agriculturally related. Eighty four percent of the land use is cultivated land with corn/soybean rotation and eleven percent in hay, pasture and grassland.

The Des Moines River watershed consists of 3 minor watersheds: West Fork Des Moines River-headwaters, Lower and East Fork Des Moines River. The West Fork Des Moines River begins at Lake Shetek and flows southeast through Murray, Cottonwood, and Jackson counties before entering Iowa. The East Fork Des Moines River starts in Martin County and flows south to Iowa and joins the West Fork Des Moines River near Fort Dodge. The watershed's major land use is also agriculturally related with 85 percent in cultivated land and 7 percent in hay and pasture.

Farm Demographics

The average number of farms in the nine county area has decreased from 1992 to 1997 by eight percent. The average number of farms was 927 in 1992 and 849 in 1997. The average farm size has also increased in the same time frame. The average farm size was 378 acres in 1992 and 410 acres in 1997.

Figure 1: Map of the SW MN CREP Proposal Area





Environmental Factors

The topography and soils in the southwest corner of Minnesota are a result of two major landforms. The extreme southwest counties (Pipestone, Rock and the west half of Nobles) are underlain by an old clay loam glacial till that is covered by a mantle of silty clay loam loess. The loess mantle can vary in thickness from a few inches to several feet. It is gently sloping to hilly.

The remaining counties are a young glacial till deposited by the most recent glacial advance. The southwest edge of this advance is marked by the Bemis Moraine (Buffalo Ridge). The soils throughout this area are dominantly loam. In the southwest part of this area they are rolling to gently undulating and become nearly level to gently undulating as you move north and east. Southwestern Minnesota receives about 26 inches of annual precipitation.

Water quality in the Des Moines River w and the Missouri River w has degraded over time due to the changing landscape. In the proposal area, there are twenty reaches that are on the Total Maximum Daily Load (TMDL) list submitted to the Environmental Protection Agency. A TMDL is an assessment of a specific section "or reach" of a river or stream that evaluates the pollution sources occurring in that area. With those numbers, the Minnesota Pollution Control Agency determines if the reach exceeds the state standard for that selected usage. Water quality is important to the watershed residents and as a result many local groups have formed partnerships to study and improve the water quality. In our proposal area, there are 11 water quality projects funded through Clean Water Partnerships, 319 studies, and TMDL assessments. These projects monitor water quality, educate the general public, and implement best management practices.

SW MN is not only agriculture based but has many recreational opportunities. According to the 2002 Roadside Survey, a majority of the proposal area is rated highest for pheasant hunting. From 1995 to 1999 the average number of pheasants was 70 per one hundred miles. From 1950 to 1959, the average pheasant count was 403 in one hundred miles.

SW MN has many areas of interest. The Des Moines River is designated as a DNR Canoe Route. Swimming, tubing, and canoeing are still popular summertime activities but have decreased due to water quality degradation. We also have the Talcot Lake Refuge, four state parks, the Pipestone National Monument, six State Scientific and Natural Areas and the USFWS Wolf Lake Interpretive Center.

Once referred to as the "Chesapeake of the West", Heron Lake attracted as many as 700,000 canvasbacks during fall migration and upwards of 50,000 Franklin's gulls once made their nests on the lake. Canada geese, white pelicans, trumpeter swans, sandhill and whooping cranes, curlews, and black-crowned night herons also sought out Heron Lake. Today, waterfowl numbers have decreased from thousands to hundreds due to the landscape changes.



Throughout our proposal area, 17,200 rural residents and 40 communities rely on the Rock County, Lincoln-Pipestone and Red Rock Rural Water Systems for their drinking water. A major portion of the water is used for agricultural and industrial purposes such as Ethanol2000 located near Bingham Lake, a rest area near Marshall and numerous livestock operations for feedlots and confinements. Because of the interactions between surface and groundwater, 90 percent of the proposal area has a moderate to high potential for groundwater recharge. Currently, there are six municipal designated wellhead protection areas in the following cities: Edgerton, Ellsworth, Lismore, Windom, Adrian and Luverne.

In our area, the Topeka shiner was put on the Federal Endangered Species List in 1998 by the USFWS. The Topeka shiner needs cool, sandy bottomed streams to live and is an indicator species for watershed health. The loss of the Topeka shiner in the Missouri River watershed demonstrates the degraded water quality conditions in our region.

The USFWS has proposed to designate 57 reaches in the Missouri River watershed as Critical habitat areas. These critical habitat areas are geographic areas that are essential for the conservation of an endangered species and that may require special management considerations or protection.

3. Agriculture Related Environmental Impacts

Agriculture-Related Environmental Impacts

A majority of the proposal area is agriculturally based. Some of the land use activities have a large impact on surface water and groundwater. Results from a diagnostic study of the West Fork Des Moines River show that in 2001, 2,775 semi truck loads of sediment passed Jackson from April to October 2001. This equates to 116,555,859 pounds.

Nutrients are also a major contribution to the degraded water quality. Phosphorus binds to soil particles and enters a waterbody. Phosphate will stimulate the growth of plankton and aquatic plants which provide food for fish. This may cause an increase in the fish population and improve the overall water quality. However, if an excess of phosphate enters a waterbody, algae and aquatic plants will grow wildly and use up large amounts of oxygen. This rapid growth of aquatic vegetation eventually dies and as it decays it uses up oxygen. This process in turn causes the death of aquatic life because of the lowering of dissolved oxygen levels. Within the project area, a TMDL listing for low oxygen levels is observed in two areas, but is prevalent in many streams and rivers. Nitrates are also of concern. Low oxygen levels are a result of excessive nitrogen. Excessive concentrations of nitrites can produce a serious condition in fish called "brown blood disease." Nitrites also can react directly with hemoglobin in the blood of humans and other warm-blooded animals to produce methemoglobin. Methemoglobin destroys the ability of red blood cells to transport oxygen. This condition is especially serious in babies under three months of age. High nitrates in drinking water can cause



digestive disturbances in people. Two reaches have in the SW MN CREP area are on the 2002 TMDL List for exceeding the ammonia nitrogen standard.

The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of man or other animals. At the time this occurred, the source water may have been contaminated by pathogens or disease producing bacteria or viruses which can also exist in fecal material. The presence of fecal contamination is an indicator that a potential health risk exists for individuals exposed to this water. In the proposal area, there are nine reaches exceeding the state standards for fecal coliform that have been placed on the 2002 TMDL List.

Trends From Past to Future

Land use trends indicate that environmental problems may worsen as farms become fewer, larger, and less diverse. Field sizes continue to grow. Farms continue to be less diverse and artificial drainage continues at a rapid pace.

In 1984, Anderson and Craig determined the number of pre-settlement wetlands. According to that study, the nine county area had 705,000 acres of pre-settlement wetlands. According to the 1994 National Wetland Inventory there are 117,736 acres remaining. Therefore, approximately 83 percent of the pre-settlement wetlands have been drained. Within the project area, there are approximately 541 linear miles of drainage ditches. Perennial streams and rivers total 900 miles. Drainage ditch systems add up to 40 percent of the linear miles of watercourses in the watershed and drain about 40 percent of the cultivated land.

Health-Related Agricultural Impacts

In an agriculture dominated land use, many health issues are related to agriculture. Some studies report contact with chemical and fertilizers repeatedly over time can increase cancer. In the area, a number of wells have nitrate concentrations exceeding the Drinking Water Standard of 10 mg/L. A groundwater study in the proposal area shows that in low flow conditions, there is a correlation between the water quality of surface water and the groundwater. In 1998, fish consumption advisories were listed for thirteen lakes sampled in the nine county area.

Efforts to Address Impacts

There are 1.8 million tillable acres in the proposal area of which 4.4 percent are currently enrolled in conservation programs. Table 1 summarizes the current activity levels for the following state and federal conservation programs: Reinvest in Minnesota (RIM) Reserve, Conservation Reserve Program (CRP), Wetland Reserve Program (WRP), Conservation Reserve Enhancement Program (CREP), and Continuous Conservation Reserve Program (CCRP).

Table 1: Acres Enrolled in Conservation Programs

Program	Acres
CRP	86,137.4
CCRP	27,012.10
CREP	18,176.30
RIM	6,604.10
RIM WRP	454.90
WRP	297.20
Total	138,682.0

4. Objectives

SW MN CREP will address four resource problems: water quality, fish and wildlife habitat, endangered species and adequate drinking water. SW MN CREP will also provide a meaningful tool to target frequently flooded land.

In efforts to improve the water quality, many projects in the proposal area have implemented load reduction estimates. For example, the West Fork Des Moines River project has set a goal of reducing the sediment load in the West Fork Des Moines River by 30 percent which equates to 30 million pounds per year of soil saved. Jack Creek located in the Heron Lake w, has a goal of reducing phosphorus and sediment by 35 percent over six years. Approximately 26,850 pounds of phosphorus and 18,111,384 pounds of sediment would be saved.

"How Much is Enough for 2002" A Regional Wildlife Habitat Needs Assessment for the 2002 Farm Bill published by the Wildlife Management Institute established a goal of converting ten percent of cropland to wildlife in order to maintain and improve populations of wildlife and waterfowl. In the nine county area, 4.4 percent is currently enrolled in a conservation program. SW MN CREP would target 1.6 percent of marginal land increasing the percentage to six percent.

We are requesting 18,000 acres for riparian corridor protection and restoration. The Rock River and Des Moines River total 317 river miles in Minnesota. The number of riparian zone acres is estimated at 23,000 acres.

We are requesting 3,000 acres for wellhead protection. There are approximately 24,000 acres of cultivated land in the three Rural Water System wellhead protection areas.

We are requesting 9,000 acres for wetland restorations. The potential acres for restorable wetlands in our project area are greater than 400,000 acres.



5. Project Description

Acres Requested and Timeline

SW MN CREP has a need for 30,000 acres. Three priorities have been defined: riparian corridor protection and restoration, wellhead protection and wetland restorations. Acre goals were developed based on landowner usage, water quality benefits, and water quantity issues. The timeline for the SW MN CREP is five years. In addition, two years will be needed to complete implementation.

For riparian corridor protection and restoration, a NRCS standard 393 may be used to extend filter strips to 350 feet for concentrated flow distribution, drainage ditch berms, tile intakes, and wildlife habitat. The 1987 Federal Wetland Delineation Manual will be used to define and delineate wetlands. A ratio of two to one (two acres upland to one acre basin) will be implemented for wetlands restorations.

CRP Practices

In the proposal area, there will be an option of nine CRP conservation practices to optimize the best fit for the landowner and land. They are as follows:

CP-2	Permanent Native Grasses
CP-4D	Permanent Wildlife Habitat
CP-12	Wildlife Foodplot
CP-21	Filter Strip
CP-22	Riparian Buffer
CP-23	Wetland Restoration
CP-25	Rare and Declining Habitat
CP-27/28	Farmable Wetland Program

Likelihood of Objective Accomplishment

The range of possibility of SW MN completing the objectives is aggressive but attainable. The fact that 48 cooperating agencies expressed support through letters of commitment shows an extensive desire for CREP in southwest Minnesota. See Table 2 for a list of the supporting agencies. Moreover, seven of the nine participating counties have had experience with the Minnesota River CREP. Through contacts with landowners, these agencies feel a compelling desire from the landowners and operators for a program that provides numerous benefits.

Table 2: List of Supporting Agencies

Agency	Letters Received
FSA	9
NRCS	9
SWCD	9
Environmental Office	9
Watershed Districts	3
USFWS	1
DNR Area Offices	3
Resource Conservation & Development	2
Rural Water System	3

Interagency Coordination

Each county will take applications and eligibility will be determined in cooperation with the Farm Service Agency to ensure that each application meets the requirements. The Soil and Water Conservation Districts, Natural Resources Conservation Service, and Minnesota Department of Natural Resources with existing and supplemental staff will provide technical assistance and conservation plan development. Contract compliance will be conducted with the same inspection process used under CRP and RIM. Regular inspections will be conducted during the first three years after plan implementation to ensure establishment of practices, and at regular intervals after that to ensure contract compliance.

6. Cost Analysis

Total Estimated Project Costs

Total Estimated Project Costs:	\$ 60,000,000
Federal Portion:	\$ 45,000,000
State Portion:	\$ 15,000,000
Easement payments & cost share:	\$ 13,000,000
Education, technical & administration assistance:	\$ 2,000,000

Non-Federal Funds

State funds will be used to match the federal funds used for this project. State funds will be approved by the state legislature through the Reinvest In Minnesota (RIM) program and will be targeted to basins that are able to leverage federal funds, such as CREP and WRP.

Incentive Payment Justification

An integral aspect of this CREP proposal is to present landowners with a range of choices regarding duration of easement. This project will use state RIM funds to provide an added incentive to place easements on lands enrolled in the program beyond the 15-



year period provided by Conservation Reserve Program payments. Landowners will be presented with the following range of options for easement duration: 20-year, 35-year, 100-year, and perpetual. Incentive payments will be increased as the duration of the easement is increased, in accordance with the increased environmental benefits provided by the longer easement periods. Dr. Steven J. Taft, University of Minnesota Department of Agriculture and Applied Economic developed the payment rate structure based on the estimated market value.

Also, RIM funds will be used to provide additional funds for the implementation of conservation plans. State funds are also used for technical and administrative costs for implementing the CREP.

Farm Economic Data

The Farm economic data was derived from the 1999, 2000, and 2001 Annual Report of the Southwest Minnesota Farm Business Management Association. Data was based from crops raised on owned land. See Table 3 for the average crop yields and Table 4 for the average production costs.

Table 3: Average Crop Yields from 1999-2001

Year	Corn (b/a)	Soybean (b/u)
1999	156	45
2000	150	46
2001	128	42
Average	145	44

Table 4: Average Production Costs for 1999-2001

Year	Corn (\$/b)	Soybean (\$/b)
1999	\$1.67	\$4.28
2000	\$1.87	\$4.28
2001	\$2.22	\$4.85
Average	\$1.92	\$4.47

7. Monitoring Program

Monitoring Data

Extensive monitoring of the water quality in the project area has been conducted through the studies mentioned above. Through these studies, baseline and storm event samples were taken and in most cases, pollutant loads were determined. Water quality monitoring will continue to take place to determine the success of the conservation programs. The monitoring will be conducted by the Minnesota Pollution Control Agency, Minnesota Department of Agriculture, Minnesota Department of Health Minnesota Department of Natural Resources, local agencies, and volunteers.



SW MN CREP

Publication of Data

The Soil and Water Conservation Districts are required by the Board of Water and Soil Resources to submit annual reports. These reports estimate the reduction of sediment, phosphorus and nitrogen to surface water due to implementation of conservation practices. The Board of Water and Soil Resources summarizes and publishes the statewide dataset.

Projects conducting water quality studies are also required to submit reports on a semiannual and annual basis. Tracking of monitoring data and education activities, and implementation of conservation practices are documented and used to determine future efforts.

Project Modification

The SW MN CREP work team will consult with the Board of Water and Soil Resources regarding project progress on an annual basis. Acreage goals, load reductions and project success will be discussed. If changes are in order, a revised plan will be developed in order to meet the goals and objectives.

8. Public Outreach and Support

The SW MN CREP program began five years ago when CREP was initiated in the MN River Basin. Working with landowners and operators, we found that many areas would have been eligible for CREP but not located in the MN River watershed. There are also a number of landowners that are interested in other conservation programs such as RIM, EQIP, WRP but funding is not always available. Within the proposal area, there were 57 unfunded RIM applications totaling approximately \$510,000.

Forty-eight agencies within the proposal area provided letters of support for this initiative. The majority of the government agencies working with conservation practices will be making personal contacts with landowners that are eligible for SW MN CREP. Other conservation programs within the proposal area have been very successful. For example, approximately 27,012 acres have been enrolled in Continuous CRP. Staff and landowners are ready and willing to implement this exciting opportunity.

9. Development of Procedures

Local units of government have been working with state office staff from FSA, NRCS and the Minnesota Board of Water and Soil Resources during the development of this application to address procedural items as much as possible ahead of time. This working relationship will continue as the program is implemented.

10. Staff Training

NRCS, SWCD and FSA staff are trained and proficient in processing CRP and RIM contracts. This will provide a good base for implementing a CREP program. However, added technical staff will be needed to implement CREP. These will be funded with a



combination of public and private funds. Additionally training and assistance will be available as needed. With seven of the nine counties already experienced with CREP, a smooth transition will be made into the SW MN CREP program.

11. Communications Plan

The goal for SW MN CREP is to enroll 30,000 acres by the end of the project period.

Project partners will promote and develop educational efforts to provide landowners within the project area the information needed about SW MN CREP. This will be done through newsletters, mass media, informational aids, and training. Motivators and barrier to this process include: lack of good information, heritage, economic benefits, environmental protection and recreational opportunities.

SW MN CREP will provide rural opportunities to enhance, conserve, and treasure our land.

Provide
Rural
Opportunities
To
Enhance,
Conserve, &
Treasure

Nash knows about Chippewa ditches

His knowledge won't be wasted

By Carol Stender

cstender@agrinews.com

MONTEVIDEO, Minn. — Ask Kenny Nash anything about Chippewa County's judicial ditch system, and he can provide the answer.

Nash is the county's ditch inspector — a position he's had since 1990. Before that he'd worked with the ditch system designer for 35 years.

When county officials learned Nash might retire in the next few years, they took action to retain the information from old paper records and the wealth of ditch history Nash has memorized. They applied for the Board of Water and Soil Resources grant to help fund part of the process.

Chippewa County is in good company. Of the 21 BWSR challenge grants awarded, seven involve updating ditch information. Chippewa, Faribault, Kandiyohi, Le Sueur, Meeker, Swift and Yellow Medicine counties are all conducting some form of county and judicial ditch information upgrade. Pope County and the North Crow River Watershed District did similar inventories.

Some are updating ditch information as part of BWSR's interest in comprehensive water plans. For some it's simply a means of updating and preserving ditch maps and history.

"In some of the counties, some of the records are from the turn of the century, and there's a risk that those docu-

ments wouldn't survive," said John Jaschke, who works with ditch information for BWSR. "It's really getting the watershed district an opportunity to keep track of what they have responsibility for. There's also an opportunity to bring in some greater water management dollars into the public ditch system to preserve water quality. I think that it's a new way of looking at managing water and because of that, there will be new funding to do more non-traditional ways of managing the ditch system."

The state has 90,000 miles of water courses including natural waterways and ditches. Of that, 25,000 are ditch systems. Chippewa County's oldest ditch was built in 1906 and its newest in 2001. There are 465 miles of open ditch in the county and "many miles" of tile, Nash said.

For several of the counties, the grant money has helped digitizing the information. The miles of judicial ditches including tile lines were another layer added in the county's GIS mapping.

Chippewa County Land and Resource Management director Scott Williams has found the mapping helpful. When an area farmer wanted to build a feedlot, Williams found his original location wouldn't work. The mapping system with its designation of tile lines showed the feedlot was close to tile. If something happened to the tile line and repairs were needed, crews couldn't reach it. The feedlot was moved, keeping proper setbacks from an open county ditch and distance from the tile line.

Drainage ditches don't always get this type of atten-

tion, but BWSR's call for comprehensive water plans moved some counties towards record updating, said some applicants. Chippewa County will use the information to monitor the data available and have an accurate repair history on the county's drainage ditch system.

In Yellow Medicine County, the BWSR challenge grant will help complete its map information transfer into a GIS format.

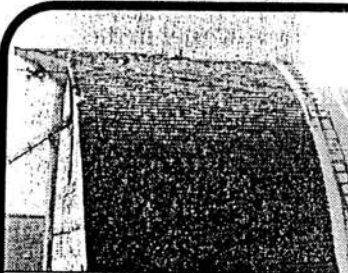
"During budget cuts, that got cut," said Jolene Johnson, Yellow Medicine County water plan coordinator. "We put in for a challenge grant to complete the mapping on the ArcView computer program and will also help us identify buffer strips. The Soil and Water Conservation District will take the information and identify which areas could use program funds for buffer strip development or wetland development."

Nash and Chippewa County

Natural Resources Conservation Service civil engineer Joe Keller have friendly debates over the ditch system's purpose. Some ditches were originally designed for flood control but provided little control since the county has experienced two 100-year floods and one 50-year flood over the past decade.

The ditch system's are recognized as an important part of the county's landscape, and officials strive to maintain the systems for good water quality.

Some of the groups receiving funds are counties while others are watershed districts. Local governments provide matching dollars. The funding for the challenge grants was recommended by the Legislative Commission on Minnesota Resources. Of the fund's total, \$444,000 came from the Environmental Trust Fund and \$56,000 from the Great Lakes Protection Fund.



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Agri News - Oct 9, 2003



NEWS RELEASE

*Board Members
RM - F/I*

Minnesota Board of Water and Soil Resources • One West Water Street, #200 • St. Paul, MN 55107
Contact: Peter Raeker, Communications Office; 651-296-0884; fax: 651-297-5615 • www.bwsr.state.mn.us

September 5, 2003
For immediate release

Contact: Peter Raeker, 651-641-0494

FILLMORE COUNTY USES UNIQUE NATURAL RESOURCE PROTECTION TOOL

FILLMORE COUNTY – Two existing wetlands in Fillmore County have been protected from future impacts, thanks to a voluntary agreement landowners have made with the county and the Minnesota Board of Water and Soil Resources.

The Wetland Conservation Act, Minnesota's wetland protection law, allows a county or watershed district to enroll existing wetlands located in areas that are both high priority regions (counties that have lost 50 percent or more of their pre-settlement wetland acres) and high priority areas (which are identified in local water management plans) into a "wetland preservation area." Fillmore County is the first county in the state to use this natural resource protection tool.

The first enrolled wetland in Fillmore County is located on Gary and Deb Anderson's land in Sumner Township. It has 5.5 acres of wetland and 3.3 acres of buffer. The second is on land owned by Dennis Severson. That wetland preservation area, located in Chatfield Township, has 1.4 acres of wetland and 1.9 acres of buffer.

Fillmore Soil and Water Conservation District coordinates the program in the county. According to Jeremy Maul, GIS technician for the conservation district, the county became involved for two reasons. "We wanted to help preserve our remaining wetlands and provide an extra incentive to enrollees," he said.

The Severson wetland preservation area is located on the Decorah Shale outcropping, a groundwater recharge zone that occurs in southeastern Minnesota. The wetland acts as a filter for an important source of groundwater for the area, according to Maul.

"I felt it was a good way to preserve the wetland and keep our water quality high," noted Dennis Severson. "It's too wet to farm over there. It was only good to farm one out of four years anyway."

A landowner who enrolls in the program signs a restrictive covenant, which prohibits him or her from developing the land or restoring the landscape, unless it is done for habitat or natural-resource improvement purposes. In turn, a landowner is exempt from paying property taxes on that piece of land. Once in the program, a landowner has to manage the wetland and surrounding area with sound soil conservation practices to prevent excessive soil loss and control invasive weeds.

-MORE-

Fillmore WPA

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Participation in the program by counties or watershed districts is optional, according to Maul. If a county chooses to accept applications, the Department of Revenue (DOR) reimburses a county for lost tax revenue; the actual amount is based on a DOR formula.

Once a WPA is enrolled, it is considered permanent unless and until a landowner initiates a request for termination. If a termination is requested, the landowner has to wait at least eight years to be released from the restrictive covenant.

For more information, contact the Fillmore Soil and Water Conservation District, phone: (507) 765-3878, or Tom Mings, Minnesota Board of Water and Soil Resources, (651) 284-4153.

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This news release is available on BWSR's web site: www.bwsr.state.mn.us

Board Members
FYI

From: Jim Cox <jwcox@crosslink.net>
To: <jwcox@crosslink.net>
Date: 9/12/03 1:22PM
Subject: FYI - USDA Release: USDA REALLOCATES NEARLY \$60 MILLION OFFARM BILL FUNDS FOR CONSERVATION ON PRIVATE WORKING LANDS

>USDA REALLOCATES NEARLY \$60 MILLION OF FARM BILL FUNDS FOR CONSERVATION ON PRIVATE WORKING LANDS

>States Receive Funds for Conservation Technical and Financial Assistance
>WASHINGTON, Sept. 12, 2003-Agriculture Secretary Ann M. Veneman today announced the reallocation of nearly \$58.6 million to be used for conservation technical and financial assistance.

>
>"This reallocation of 2002 Farm Bill funding will allow more producers to make conservation part of their farm and ranch operations," Veneman said. "The Bush Administration remains committed to helping producers achieve good stewardship and conserve natural resources."

>
>The reallocated funds come from unused funds previously distributed to the U.S. Department of Agriculture's Natural Resources Conservation Service state offices, national level reserves, and the Environmental Quality Incentives Program (EQIP) "performance holdback," as called for in the EQIP final rule. This performance incentive is money held back at the national level to be awarded to states that achieve a high level of program efficiency and optimize environmental benefits. Eight states received an EQIP performance incentive due to efficiency demonstrated: Arkansas, California, Michigan, Nebraska, North Dakota, Ohio, South Carolina and Texas.

>
>This redistribution will help additional producers get the conservation benefits that come from conservation planning and voluntary conservation programs, such as EQIP, Wildlife Habitat Incentives Program, Farm and Ranch Lands Protection Program and Conservation Reserve Program.

>
>In addition to the federal dollars, conservation on private land is supported by contributions from state and local sources, tribes, conservation districts and nongovernmental organizations, as well as from landowners themselves who implement conservation practices and resource management systems.

>
>Following is a state-by-state list of the reallocated funding:

>State Total

>Alabama	\$745,401
>Alaska	\$1,700
>Arizona	\$553,200
>Arkansas	\$1,351,600
>California	\$3,360,682
>Colorado	\$1,512,161
>Connecticut	\$1,730,693
>Delaware	\$1,727,504
>Florida	\$1,418,638
>Georgia	\$737,939
>Hawaii	\$136,890
>Idaho	\$618,800

>Illinois	\$1,003,027
>Indiana	\$1,188,300
>Iowa	\$755,300
>Kansas	\$1,030,400
>Kentucky	\$1,036,410
>Louisiana	\$50,200
>Maine	\$1,676,347
>Maryland	\$1,360,949
>Massachusetts	\$1,131,526
>Michigan	\$725,226
>Minnesota	\$1,739,905
>Mississippi	\$628,500
>Missouri	\$2,592,051
>Montana	\$1,253,240
>Nebraska	\$2,280,000
>Nevada	\$200,500
>New Hampshire	\$1,773,473
>New Jersey	\$1,009,050
>New Mexico	\$1,096,993
>New York	\$1,113,839
>North Carolina	\$1,423,461
>North Dakota	\$2,211,800
>Ohio	\$2,290,666
>Oklahoma	\$790,357
>Oregon	\$189,784
>Pennsylvania	\$1,730,644
>Rhode Island	\$1,259,515
>South Carolina	\$1,712,975
>South Dakota	\$917,100
>Tennessee	\$528,400
>Texas	\$2,726,003
>Utah	\$574,801
>Vermont	\$1,364,024
>Virginia	\$691,748
>Washington	\$525,191
>West Virginia	\$483,692
>Wisconsin	\$1,313,567
>Wyoming	\$386,600
>Pacific Basin	\$0
>Puerto Rico	\$0
>Total	\$58,660,772

>

>

> The following is the breakdown of the reallocated funds by program:

>

>Conservation Reserve Program	\$5,254,000
>Environmental Quality Incentives Program	\$36,709,460
>Farm and Ranch Lands Protection Program	\$15,074,860
>Wildlife Habitat Incentives Program	\$1,622,452

>

> Additional information on NRCS programs can be found at
www.nrcs.usda.gov. Information on the 2002 Farm Bill is available at
<http://www.usda.gov/farmbill>.

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