MINNESOTA HISTORICAL SOCIETY

Minnesota Board of Water and Soil Resources. Minutes.

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DATE: November 29, 1994

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

FROM: Ronald D. Harnack, Executive Director

SUBJECT: December 7, 1994 BWSR Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, December 7, 1994 beginning at 9:00 a.m. The meeting will be held in Room 112 of the State Capitol. Parking is available in Lot Q (one block northeast of the State Capitol). The agenda and informational materials are enclosed for your review. Following is some background information regarding the agenda items:

BOARD AGENDA SUMMARY

1 - ACKNOWLEDGE RETIRING BOARD MEMBERS: Warren Rodning, Barb Uppgaard and Howard Peterson will be leaving the Board sometime early next year. We want to take this opportunity to acknowledge their efforts on the Board and thank them for their contributions to the activities of the Board.

2 - NATURAL RESOURCES BLOCK GRANT ALLOCATION: The Board previously authorized the application and formula process for the grants. Integrated into the grant this year is the shoreland program and the feedlot programs of the Department of Natural Resources (DNR) and Pollution Control Agency (PCA). The decision of the Board is to authorize the grants and to decide on whether the counties that have not adopted the Wetland Conservation Act (WCA) or have not returned the current grant funds for the WCA should be eligible for a portion or all of the block grant. Staff recommendation is to only withhold the WCA portion for next year if the county has returned the WCA 1994 funds and has not adopted the WCA; or if they have not returned the funds to withhold the entire block grant until the WCA 1994 funds are returned. **DECISION.**

3 - GENERAL SERVICES GRANTS: Each year there are funds that are left over from the general services grants that were not spent on raingauges, letter stock, and envelopes, etc. The extra funds have been allocated to soil and water conservation districts (SWCDs) for special initiatives that will further the roles of SWCDs. There are more funds available this year due to less demand for services. Staff have developed a recommended allocation based on requests that were submitted by field staff in cooperation with individual districts and the association. Staff recommends approval. Next year this amount of funds will not be available as we adjust the amount reserved based on last years service or support requests. **DECISION.**

4 - WETLAND HERITAGE ADVISORY COMMITTEE (WHAC) REPORT: The WHAC has met twice regarding the amendments to the WCA rules and law. Some Board members have attended each meeting and are up to speed on the status. The WHAC will finalize their recommendations to the Board for the January meeting. They have listened to the issues and are very deliberate in their actions to date. I would expect that there will be consensus on major amendments to the Act that will make the program more efficient and effective and preserve the integrity of the program. **DISCUSSION.**

5 - STATUS OF APPEALS: There are a number of appeals pending before the Board. A summary of those are attached for your information. Two decisions are before the Board. The Dispute Resolution Committee (DRC) will meet on Tuesday and likely finalize their deliberations on the Riley Purgatory - Bluff Creek Watershed District appeal. The second is an appeal on an amendment to the Rice Creek Watershed District water plan by the City of Fridley. Due to the fact that the matter is already under appeal before the Court of Appeals it is recommended that this appeal be held abeyance pending final decision of the Court of Appeals and any subsequent appeals. **DISCUSSION & DECISION**

6 - ENGINEERING/TECHNICAL COMMITTEE RECOMMENDATIONS: The committee has met on several occasions and brought to the Board the concept of river basin/watershed based approach for the distribution of engineering support for SWCDs. The Board endorsed that concept. The districts and agency staff and the technical committee have completed the plan options for the distribution of the engineering support. Options will include: eleven areas that would be served by a registered engineer and a lead technician; an engineer serving more than one area with each area having a technician; boundaries of areas that would be modified to reflect equalized workload; and delineation of a host district that will house the staff. Funding would include salary, equipment, office etc. with no commitment to future adjustments. The technical committee meets this week to finalize their recommendations to the Board. **DECISION.**

7 - BUDGET BLUE PRINT: The management team has further refined the budget request based on early meetings with Executive Budget Team and based on discussion at previous Board meetings. The refinements reflect a bottomline if the activities are going to be conducted at all. There are significant policy issues related to these matters and we are at the point where your direction is again crucial. **DISCUSSION**

If you have additional agenda items or require additional information please feel free to give me a call. Travel safely, I look forward to seeing you on the 7th!

RDH:mja
Enc.

BOARD OF WATER AND SOIL RESOURCES
ROOM 112 STATE CAPITOL
75 CONSTITUTION AVENUE
ST. PAUL, MINNESOTA 55155
OCTOBER 26, 1994

BOARD MEMBERS PRESENT: Jim Nielsen, Jim Rossman, Dwain Otte, Kathy Roer, Marvell Tripp, Barb Cobb, Warren Rodning, Tim Hvidsten, Ted Lovdahl, and Howard Peterson.

BOARD MEMBERS ABSENT: Barbara Uppgaard and Glenn Annexstad.

AGENCY MEMBERS PRESENT:
Kim Benson-Johnson, Department of Health (MDH)
Paul Burns, Department of Agriculture (MDA)
Fred Bergsrud, U of M/Extension Service (MES)
Wayne Anderson, Pollution Control Agency (PCA)
Wayne Edgerton, Department of Natural Resources (DNR)

OTHERS PRESENT:
D'Wayne DeZiel, Minnesota Association of Soil and Water Conservation Districts (MASWCD)
Dan Livdahl, Minnesota Association of Conservation District Employees (MACDE)
Susan Schmidt, Legislative Water Commission (LWC)
Gary Nordstrom, Soil Conservation Service (SCS)

STAFF PRESENT:
Jim Birkholz
Greg Larson
Doug Thomas
Dave Behm
Ron Shelito
Dale Krystosek
Dan Steward
John Jaschke
Pete Waller
Bruce Sandstrom
Barbara Ohman
Tom Schwanke
Al Kean
Mary Jo Anderson

Chairman Nielsen called the meeting to order at 9:10 a.m.

** 94-58 **Adopt Agenda** - Moved by Lovdahl, seconded by Tripp to approve the agenda as presented. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, and Nielsen. Opposed. None. Carried.

Minutes of September 29, 1994 - Barb Cobb stated that a correction on page four is needed regarding her comments about the water planning program. It should read, "Barb Cobb mentioned that a voluntary water planning program in the metro region would be a significant change from the program assessment recommendation made at the August BWSR meeting." Kathy Roer stated that a correction is needed on page five, fourth paragraph, regarding the State Resolving Fund, should read, State Revolving Fund. Moved by Peterson, seconded by Cobb, to make the corrections on page four and five and approve the minutes of September 29, 1994, as circulated. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, and Nielsen. Opposed. None. Carried.

** 94-59

Reports

Chairman's Report - Jim Nielsen reported that he and BWSR members Rossman, Annexstad, Otte, and Roer and staff met with Department of Finance and Governor's staff last week to discuss the budget for 1995-96.

Chairman Nielsen reported that BWSR is continuing to work on Minnesota's position and policy on the 1995 Farm Bill.
Chairman Nielsen attended the Environmental Quality Board (EQB) meeting.

Chairman Nielsen mentioned that a few BWSR members' terms expire in December; he asked them to contact him regarding this.

Executive Director's Report - Jim Birkholz reported on staff activities regarding state revolving fund technical assistance.

Jim reported that this may be the last time the BWSR meets off-site, as the office move is scheduled for the week of November 21. The new address will be One West Water Street; hopefully, we will meet there in December; there is ample parking available at the new location.

Jim reported that the BWSR all staff retreat was held in Brainerd.

Jim reported that we have received the draft confidential legislative audit report. Staff will respond to the Legislative audit findings by November 7. Board members will receive copies of the final public report after that date.

Committee Reports -
Feedlot Advisory Committee - Jim Rossman reported that the new feedlot committee is in the process of being formed, nothing to report at this time.

Dispute Resolution Committee (DRC) - Kathy Roer reported that the DRC met on October 13 to hear WCA appeals. The next scheduled meeting of the DRC is November 10 when four appeals may be heard, depending upon the process. The committee's December 8 meeting has been rescheduled for the afternoon of Tuesday, December 6, since the committee needs to meet the day before the full BWSR.

Wetland Conservation Act (WCA) Grant Agreements - Greg Larson and Matt Seltzer, Attorney General's office, discussed the issue of the three counties (Beltrami, Marshall, and Pennington) that have not adopted WCA or returned the grant fund. Lake County did not request funding and Koochiching County returned funds, although they have not adopted the Wetland Conservation Act. Matt sent a letter to each county attorney regarding the grant issue. He stated that there are two issues here; one is contractual related to the return of funds and the other is the basic issue of counties implementing the act as required by law and rule. Rossman suggested getting the parties together possibly at the Association of Minnesota Counties (AMC) convention in December, to address this issue. Chairman Nielsen asked Matt to follow up with the county attorneys involved to see where they are on this. Kathy suggested also meeting with Lake and Koochiching Counties. Discussion followed. Moved by Otte, seconded by Lovdahl, that BWSR would obligate the counties to fulfill the law, to pursue discussion with five counties in terms of adopting, and also pursue parallel actions to get funds returned, with a deadline of December 15. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, and Nielsen. Opposed: None. Carried. Chairman Nielsen instructed Matt Seltzer to contact the county attorneys to set up a meeting. Ron and Matt will report back to full BWSR at the December board meeting.

** 94-60

Revised Draft of Rules Regarding Watershed District Appeals - Doug Thomas and Matt Seltzer introduced and discussed the draft. There are two components: one, a formal appeal process and two, an informal dispute resolution role. Matt explained the appeal process structure. Kathleen Roer and Howard Peterson have met with Matt and Doug on this process and thanked them for their time. Kathy said the draft is for information and comment. Doug said the outside solicitation process for comments will close at the end of January.

Chairman Nielsen called for a break in the meeting at 10:20 a.m. The meeting reconvened at 10:30 a.m.

Watershed District Overall Plan Guidelines - Doug Thomas reviewed the guidelines for the board. Doug thanked the BWSR Bemidji office for meetings held in the northern region. Two districts responded with specific changes. Staff recommends and requests approval of the guidelines. Moved by Tripp, seconded by Cobb, to approve the watershed district

** 94-61

overall plan guidelines. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, and Nielsen. Opposed: None. Carried.

Wetland Conservation Act Program Assessment - Jim Birkholz stated that this is the final program assessment for review by the BWSR. Greg Larson summarized the staff program assessment of WCA. Greg reported that the next meeting of WHAC is November 2, at the Kelly Inn in St. Paul, at which time WHAC will be making recommended legislative changes that will be brought before the full BWSR in December.

Middle River Snake River Watershed District Plan Approval - Doug Thomas gave an overview of the Middle River Snake River Watershed District Watershed District Plan. Doug introduced Ron Adrian and Ron Osowski, representatives of the watershed district. Staff recommends approval of the plan. Tim Hvidsten commended Ron and Ron for their efforts in Marshall County. Moved by Hvidsten, seconded by Rodning to approve the Middle River Snake River Watershed District Plan. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, and Nielsen. Opposed: None. Carried.

** 94-62

Blue Print Revised - Chairman Nielsen reported that the Governor's office directed the Department of Finance to negotiate with each agency on budget requests. Chairman Nielsen stated that the first draft blueprint was sent to members and presented at the meeting last week with the Department of Finance. This blueprint has been revised since that meeting. Chairman Nielsen stated that discussion today should be to give the blueprint further critical review. Jim Birkholz walked through the two-page summary and asked for Board reaction and debate on this budget request. The blueprint is a comprehensive package of staffing, funding and policy initiatives related to fully carrying out BWSR responsibilities. Fred Bergsrud stated that MES favors a partnership rather than contractual relationship for the education positions in the blueprint. Chairman Nielsen, Roer and Hvidsten agreed. Discussion followed. Chairman Nielsen suggested that members study further the addendum to the blueprint.

Chairman recessed the meeting for lunch at 12:00 p.m. The meeting reconvened at 1:00 p.m.

Budget discussion continued. Chairman Nielsen asked about prioritization of the blueprint. Members expressed concern about asking for such a significant staff increase. Chairman Nielsen said that's a huge increase in staff, but he doesn't feel embarrassed to ask for the resources and staff needed. After further discussion, Chairman Nielsen concluded that we will continue to move ahead.

Metro Public Drainage System Inventory Report - Barbara Ohman highlighted the report for the Board's information. Bruce Sandstrom commended Barbara for her efforts on this report. Bruce explained that this is a legislative mandate, the statute requires the report. Moved by Otte, seconded by Cobb, to approve the Metro Public Drainage System Inventory Report for distribution. Affirmative: Cobb, Hvidsten, Lovdahl, Otte, Peterson, Rodning,

** 94-63

Roer, Rossman, Tripp, and Nielsen. Opposed: None. Carried.

Nine Mile Creek Watershed District Complaint - Bruce Sandstrom briefed the Board on a dispute regarding the Nine Mile Creek Watershed District watershed management plan for the Board's information.

State Revolving Fund (SRF) Agricultural Best Management Practices Loan Program Update - Paul Burns, Department of Agriculture, summarized and distributed informational materials to the Board on the SRF loan program. He reported that the purpose of the Agriculture Best Management Practices Loan Program is to provide low interest financing to farmers, agriculture supply businesses and rural landowners to make improvements or implement practices that will mitigate or prevent nonpoint source pollution.

Conservation Technical Assistance Update - Al Kean and D'Wayne DeZiel updated the Board on the SRF conservation technical assistance progress since at the September BWSR meeting. Al said the goal is get joint powers agreements set up between cooperating SWCDs and then to employ engineers and technicians in each area. Al said the original intent was to have river basin boundaries consistent with these areas, as much as possible.

1995 Natural Resources Block Grant Preview - Wayne Zellmer introduced the natural resources block grant for the Board's information. Wayne will present the allocations of county grants at the December meeting. Barb Cobb would like to have the breakdown listed so MASWCD will have this available.

Advisor Comments

Soil Conservation Service (SCS): Gary Nordstrom reported on the signing of the USDA reorganization bill by President Clinton on October 13. SCS has a new name, "Natural Resources Conservation Service". A consolidated farm service agency will also be created. Consolidation of field offices will likely occur according to the plan developed in Minnesota; SCS offices around the country are continuing to close. A forum will be held on these regarding reinventing the Soil Conservation Service at the Radisson South on December 10.

Minnesota Association of Watershed Districts (MAWD): Howard Peterson stated that MAWD's annual meeting will be held in Willmar, December 2-3, 1994.

Minnesota Association of Townships (MAT): Franklin Denn stated that there's a need for additional education regarding WCA.

Chairman Nielsen asked members to let Ron know if they plan to attend the various conventions so arrangements can be made.

Fred stated that Pat Borich announced he will be retiring on January 3, 1995.

Wayne Edgerton distributed materials on sustainable development and ecosystem management that the Department of Natural Resources uses as organizing principles.

Susan Schmidt stated that the Legislative Water Commission's annual groundwater meeting is November 16-17; the following meeting is scheduled for December 19-20, to continue groundwater hearings and discuss legislative initiatives.

Chairman Nielsen adjourned the meeting at 2:55 p.m.

Respectfully submitted,

D. James Nielsen
Chairman

November 29, 1994

Status of the return of WCA administrative funds: non-adopted counties

Beltrami: awaiting their decision
Koochiching: have returned the funds
Lake: did not apply for funds
Marshall: awaiting their decision
Pennington: awaiting their decision

November 29, 1994

To: Ron Harnack

From: Bruce Sandstrom

Re: Status Report on Pending Appeals

You asked for a brief status report on the appeals pending on this date.

Trout Unlimited v. City of Shakopee (WCA appeal)

Pre-hearing conference was scheduled for Oct. 13, 1994 but was canceled at the last minute. The reason for the cancellation was that the City Attorney took the position that the City had not officially approved the replacement plan and so there was nothing to appeal at this time. On Dec. 6, 1994 I will be recommending that the DRC dismiss the appeal without prejudice. Trout Unlimited understands the situation and said that they would be formally withdrawing its appeal at this time, but haven't done so to date. I recommended in a letter to the parties that TU ask to be placed on Shakopee's "notice list" so that they would not have to re-certify their 100+ signature petition in order to re-instate their appeal.

Wallace v. Riley Purgatory Creek WD (WCA appeal)

Pre-hearing conference held on Oct. 13, 1994. Hearing held by DRC at 9:00, Nov. 10, 1994 and was continued to Dec. 6, 1994. On Dec. 6, 1994 additional documents may be included as part of the record by the DRC as part of the record and a recommendation is expected to be made on that date. Board action expected on Dec. 7, 1994.

Audubon v. Nine Mile Creek Watershed District (8410.0180 appeal)

Board found just cause for the appeal at the August Board meeting. I prepared a staff report dated Oct.18, 1994 which was reviewed with the you and Matt Seltzer per rules. A meeting of the parties, including representatives of the City of Eden Prairie and the City of Hopkins, was held on Nov. 17, 1994 to discuss the contents of my draft report. Jim Birkholz facilitated the meeting. Bd Member Barb Cobb was present and provided valuable input. A proposal to settle the grievance was generally agreed to and will be placed in writing by Jim Birkholz today or tomorrow. Audubon has in concept agreed to not pursue their appeal further at this time if certain actions take place towards the review, approval and adoption of the District's recently submitted watershed management plan as is expected to be laid out in Jim's draft agreement. A necessary outgrowth of this dispute will be that the Board will have to adopt a definitive policy on what to do when a WMO does not have an up-to-date plan. This policy will have to apply to all WMOs, not just Nine Mile Creek.

League of Women Voters v. City of Coon Rapids (WCA Appeal)

A pre-hearing conference was held on Nov. 10, 1994. The DRC is hearing the matter on Dec. 6, 1994. The developer, Muir Northtown Limited Partnership, has

filed with the Board a Motion to Dismiss and a Motion to Expedite. Major dollars are allegedly at stake. The record is about 1.5 inches thick and has been provided to the DRC. It is hoped that the DRC can make a recommendation to the Board at the Dec. 7, 1994 meeting.

Fridley v. Rice Creek Watershed District (8410.0180 appeal)

On Oct. 18, 1994 the City of Fridley filed an appeal under MS 103B.231 and related rules (8410.0180) relating to Rice Creek WD's Sept., 1994 adoption of certain plan amendments. This issue is a very complex, confusing legal issue (in my opinion). The best way I can summarize it in the fewest words is as follows:

- Rice Creek adopted plan amendments in 1993 following the amendment process in their approved 509 plan. The plan extended to 1990.
- Ramsey County filed sued in District Court.
- In May, 1994 the District considered additional plan amendments, following the plan amendment process in their original plan.
- In June 1994 the District Court ruled the 1993 amendments invalid because the plan had expired. The court basically said that the District had to follow the process in the law, not the process in their expired plan.
- Fridley appeal the lower court decision to the Court of Appeals. The Court of Appeals is hearing oral argument on Dec. 6, 1994.
- In Sept., 1994 the District adopted portions of the plan amendments considered in May, but not the Locke Lake capital improvement project.
- Fridley is basically appealing the issue of whether a WMO can adopt only a portion of a plan amendment after going through the due process provided by the amendment process.

My recommendation to the Board is to not act on the appeal until the appeal process is completed on the disposition of the 1993 amendment. I find it odd that the District is adopting any plan amendment when the District court ruled the process they followed essentially invalid.

Pearce v. Minnehaha Creek Watershed District (103D Appeal)

Pearce appealed to the BWSR relating to a project proposed in their watershed management plan. On Oct. 27, 1994 the parties agreed to defer from any litigation for two months in order to attempt to negotiate a settlement.

Levine & Ramey v. Minnehaha Creek Watershed District (103D appeal)

On Oct. 17, 1994, private citizens Levine and Ramey filed an appeal with BWSR relating to the District's approval of a development in Mpls. adjacent to a wetland known as the "Ewing Wetland." It has been a highly visible dispute since it is one of the last remaining wetlands in Mpls. with several articles about it appearing in the Star & Tribune. I have not had any time to deal with this appeal at this time

a:appeal.sta

P.S. Mr. Steve Spartz just filed another appeal with us today by fax. We are not certain whether it is a valid appeal or not at the time of this writing. It appears that it relates to condition placed on his license by Minnehaha Crk WD.

Minnesota Board of Water & Soil Resources

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November 7, 1994

MEMORANDUM

TO : 1995 Natural Resource Block Grant Applicants

FROM : Wayne Zellmer, Grants Coordinator

RE : 1995 Natural Resource Block Grant Application

The Board of Water and Soil Resources is now accepting applications from counties for 1995 Natural Resources Block Grants. This grant is formulated to assist local governmental units in implementing: Comprehensive Local Water Plans, the Wetland Conservation Act (WCA), DNR Shoreland management, and the MPCA Feedlot Permit Program.

The WCA and the MPCA Feedlot Permit Program each have two grant components, for a total of six grant categories in all. A county may apply for any or all of these components. They must also provide the required match.

Enclosed you will find the grant application materials.

To be considered, five copies of completed applications with approved and certified resolution, must be received at the following address by **4:30 PM on January 16, 1995.**

Wayne Zellmer
Grants Coordinator
Board of Water and Soil Resources
One West Water Street, Suite 200
Saint Paul, MN 55107

Successful applicants are scheduled to receive their grant agreements in February, 1995.

Questions concerning this procedure may be directed to me at (612) 297-7361.

FY 1995 NATURAL RESOURCES BLOCK GRANT SUMMARY

INTRODUCTION

The NRBG is a composite of base and challenge grants formulated to assist LGUs in implementing four state mandated programs. These programs are: implementation of comprehensive local water plans, the wetland conservation act, DNR shoreland management, and the MPCA feedlot permit program. The feedlot permit program is new this year. This is the second year of the NRBG Program. For this year's grant the BWSR has $5,844,011 available. These grants are made to counties.

The WCA and the feedlot permit programs each have 2 grant components; base and challenge, for a total of 6 grant categories in all. A county may apply for any or all of these components. They must also provide the required match.

1) COMPREHENSIVE LOCAL WATER PLAN IMPLEMENTATION

Base Grant - $2,441,511

This component is for implementation of a comprehensive water plan. A local levy match is required. Grant amount is derived from the formula of $37,500 - local levy.

2) WCA IMPLEMENTATION

Base Grant - $1,634,500

This component is for the local administration of WCA. A local 1:1 cash and/or in-kind match is required. This amount is derived from a base estimated amount of WCA activity - remained unchanged from last year. SWCDs are eligible to receive at least $5,000 of this grant.

Challenge Grant - $350,000

Counties that can demonstrate that their WCA costs exceeded their base grant may apply for additional funds. This application will be based on the amount of documented WCA expenses over and above their base grant. Successful applicants will receive this amount as part of their base grant in future years.

3) DNR SHORELAND

Base Grant - $518,000

This component is for the administration of state approved shoreland management programs. A local 1:1 cash and/or in kind match is required. Grant amounts are the same as last year.

4) COUNTY FEEDLOT PROGRAM

Base and Challenge Grants - $900,000

Base - This component is for county administration of the feedlot program. A local 1:1 cash and/or in kind match is required. This grant amount is calculated by a formula which was part of the legislation.

Challenge - Counties pursuing additional feedlot activities including inventories, information/education efforts, and providing technical assistance may apply. These applications will be reviewed by MPCA.

1995
BWSR NATURAL RESOURCES BLOCK GRANT APPLICATION

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1995 BWSR
NATURAL RESOURCES BLOCK GRANT
APPLICATION

******LOCAL WATER PLANNING PORTION******

LOCAL WATER PLANNING 1995 BASE GRANT

Base Grant Portion of Block Grant Requested $_____

Designated Local Match (Levy), Base Grant Portion $_____

Total $_____

Lead Agency/Coordinator_____

_____

Participating Agencies/Organizations Listed in Workplan_____

_____

_____

_____

_____

Does the county have an established water planning taskforce or committee?
_____yes _____ no. If yes, how many times a year does it meet? _____. How many members are there? _____.

Summary of Plan Implementation_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Carryover of Base Grant Funds

1992 Base Grant
Did the county spend or encumber all of their 1992 base grant by January 15, 1994?
_____Yes_____No

If the previous question was answered no, list the amount of the 1992 base grant that was unspent or unencumbered on January 16, 1994. $_____
The amount listed on the previous line must be returned to the BWSR.

1993 Base Grant
Has the county spent or encumbered all of their 1993 base grant? _____Yes_____No

How much will remain unspent or encumbered on January 1, 1995? $_____

!!NOTE - 1993 funds must be spent or encumbered by January 15, 1995.

1994 Base Grant
Has the county spent of encumbered all of the 1994 base grant? _____Yes_____No
If no, what amount will be carried forward to the 1995 workplan? $_____

!!NOTE - 1994 grants must be spent or encumbered by January 15, 1996.

Include 1994 Report and 1995 Workplan & Budget

(See section titled "Local Water Planning - Annual Report, Workplan & Budget Guidance." on p. 12)

****WETLAND CONSERVATION ACT (WCA) ADMINISTRATION PORTION****

Has the county formally acknowledged the adoption of the WCA permanent program?
_____yes _____no.

If the answer above is no, what is the anticipated date of adoption?_____

List all other LGU's (cities and townships) in county administering WCA independent of the County.

_____
_____
_____
_____
_____

Are all areas in the County (except for tribal lands) covered by a LGU? _____yes _____no.

If the answer above is no, what plans exist to provide seamless coverage in the county?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

WCA ADMINISTRATION 1995 BASE GRANT

Amount Requested for WCA Base Grant $_____

Base Grant Match

New Resources $_____
In-Kind Resources $_____

Total Local Match $_____

List the proposed allocation of the WCA Base Grant (including the local match) as follows:

	WCA Base Grant	Local Match	Total
County	_____	_____	_____
SWCD	_____	_____	_____
Other LGU(list)	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	(attach additional sheet if necessary)		
Totals	========	=======	========

Designated Lead/Coordinating LGU and contact person_____

_____

Carryover of Base Grant Funds

FY 1994 Base Grant
Has the county spent or encumbered all of the 1994 base grant? ____Yes ____No
If no, what amount will be carried forward to the 1995 workplan? $_____

!!NOTE - FY 1994 grants must be spent or encumbered by January 15, 1996.

1994 WCA Base Grant Report - Complete enclosed form on page 16.

WCA ADMINISTRATION 1995 CHALLENGE GRANT

This is a new component for the NRBG for 1995. The WCA Challenge Grant is a one time competitive grant. A 1:1 cash and/or in-kind match is required. Counties may apply for this grant under one or both of the following two categories:

Category One

These funds are available to counties which can provide documentation that their actual incurred WCA administration expenses exceeded their FY 1994 WCA Base Grant. **Successful applicants will receive this amount as an addition to their base grant in future years.** Documentation should be in a format itemizing WCA related expenses which reflect the county's WCA administrative workload. Typical WCA related expenses should reflect: number of applications, number of exemption certificates, number of cease and desist orders, number of TEPs, number of banking projects, number of training sessions, number of violations, restoration orders, etc... Attach additional sheets as needed to justify the request.

Category Two

In addition to WCA administration needs, counties may also request funds for WCA enhancement projects. These projects should complement WCA through education, inventories, informational programs, or monitoring. Applicants should provide a written proposal describing their project. Attach additional sheets as needed.

Amount Requested for WCA Challenge Grant $_____
Amount of Cash and/or In-Kind Match $_____
Total $_____

List the proposed allocation of the WCA Challenge Grant (including the local match) as follows:

	Challenge Grant	Local Match	Total
County	_____	_____	_____
SWCD	_____	_____	_____
Other LGU(list)	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	(attach additional sheet if necessary)		
Totals	_____	_____	_____

Designated Lead/Coordinating LGU (if applicable)_____

Summary of the WCA Challenge Grant Request_____

****** DNR SHORELAND PORTION OF BLOCK GRANT******

Shoreland Portion of Block Grant Requested $_____

Designated Local Match, Shoreland Portion $_____

List all other LGU's (cities and townships) in the county administering a shoreland program independent of the county _____

_____

_____

_____

_____

Will the county be allocating any of its 1995 Shoreland Block Grant to these LGUs?
_____yes _____no

If answer above is yes, list LGU's and dollars allocated.

City/Township	Allocation	Local Match	Total

(attach additional sheet if necessary)

If the county will not be allocating any portion of the shoreland grant to cities or townships, is technical assistance available through the county? _____yes _____no.

Carryover of Base Grant Funds

1992 Base Grant

Did the county spend or encumber all of their 1992 base grant by January 15, 1994?
_____Yes_____No

If the previous question was answered no, list the amount of the 1992 base grant that was unspent or unencumbered on January 16, 1994. $_____

The amount listed on the previous line must be returned to the BWSR.

1993 Base Grant

Has the county spent or encumbered all of their 1993 base grant? _____Yes_____No

How much will remain unspent or encumbered on January 1, 1995? $_____

!!NOTE - 1993 funds must be spent or encumbered by January 15, 1995.

1994 Base Grant
Has the county spent or encumbered all of the 1994 base grant? _____Yes_____No
If no, what amount will be carried forward to the 1995 workplan? $_____

!!NOTE - 1994 grants must be spent or encumbered by January 15, 1996.

1994 Report - Complete enclosed Shoreland Administrative Grant Report found on pages 17 & 18.

****MPCA COUNTY FEEDLOT PROGRAM****

The MPCA County Feedlot Grant Program is a new addition to the Natural Resources Block Grant for 1995. This Grant is for assisting counties in locally administering the feedlot assistance and compliance portion of the feedlot permit program. This grant has a Base and Challenge grant component. A county may apply for one or both of these grant components. A 1:1 cash and/or in-kind match is required for these grants.

1995 COUNTY FEEDLOT PROGRAM BASE GRANT

First priority for funding shall be given to counties that have requested and received delegation from the MPCA to process animal feedlot permit applications. Delegated counties are identified by those which **have** an amount listed under the MPCA Base Grant collumn. Counties requesting delegation at this time are also eligible for the base grant. These Counties are eligible to receive Base Grant amounts by one of the following methods:

1) $5,000 plus $5 multiplied by the number of livestock or poultry farms with sales greater than $10,000, as reported in the 1987 Census of Agriculture. (This amount is shown on the enclosed spreadsheet.)

2) For counties which have conducted a feedlot inventory: $5,000 plus $15 multiplied by the number of feedlots with greater than ten animal units as determined by a level 2 or a level 3 feedlot inventory conducted in accordance with the Feedlot Inventory Guidebook published by the BWSR, dated June, 1991. **NOTE: Counties must submit a copy of the inventory to the BWSR.**

Amount Requested for Base Grant $_____

Designated Local Base Grant Match by Source

New Resources $_____

In-Kind Resources $_____

Total Local Match $_____

List the proposed allocation of the Base Grant (including the local match) as follows:

	Base Grant	Local Match	Total
County	_____	_____	_____
SWCD	_____	_____	_____
Other LGU(list)	_____	_____	_____
	(attach additional sheet if necessary)		
Totals	========	=======	========

Designated Lead/Coordinating LGU (if applicable)_____
Contact Person_____

Include a work plan which provides an overview of the local administrative process, addressing the following:

1. How are complaints handled?
2. Under what conditions are inspections required?
3. Describe how feedlot permitting is coordinated with other local programs such as planning and zoning and shoreland efforts.
4. Under what conditions are permit applications referred to the MPCA?

This application must include a copy of the county resolution requesting authority to administer the program, and a commitment to provide an annual report to MPCA.

1995 COUNTY FEEDLOT PROGRAM CHALLENGE GRANT

Counties which have received delegation are eligible to apply for grant funds for the following activities:

1. Further implementation of the feedlot program
2. Technical assistance to resolve feedlot pollution hazards
3. Conducting a feedlot inventory
4. Information and education efforts

Counties which have not received delegation are eligible to apply for grants for the following activities:

5. Developing and implementing a delegated feedlot program
6. Conducting a feedlot inventory

Applications for the Challenge Grant must include a brief proposal revealing how the proposed effort will be accomplished. The Challenge Grant applications will be evaluated and ranked by MPCA staff based on the following:

1. Overall strength of the proposal
2. Overall strength of the proposal's workplan
3. Overall strength of the proposal's budget
4. Strength of long term commitment
5. Use of local programs and methods
6. Whether the county is in the Minnesota River Basin and whether feedlots have been identified as a priority in the Local Water Plan
7. Priority will be given to applications for $20,000 or less

A 1:1 cash and/or in-kind match is required.

Amount Requested for Challenge Grant $_____

Designated Local Challenge Grant Match by Source

New Resources $_____

In-Kind Resources $_____

Total Local Match $_____

List the proposed allocation of the Challenge Grant (including the local match) as follows:

	Challenge Grant	Local Match	Total
County	_____	_____	_____
SWCD	_____	_____	_____
Other LGU(list)	_____	_____	_____
	(attach additional sheet if necessary)		
Totals	=========	=========	=========

Designated Lead/Coordinating LGU (if applicable)_____

Contact Person_____

If there are any questions regrading these MPCA challenge and base grants, please contact Dave Nelson, MPCA, at (612) 296-9274.

SIGNATURE PAGE

COUNTY _____

SWCD _____

OTHERS AS IDENTIFIED IN APPLICATION

_____

_____

_____

_____

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LOCAL WATER PLANNING
ANNUAL REPORT, WORKPLAN & BUDGET GUIDANCE

The following format may be used to guide you in preparing your annual report, workplan, and budget. We hope that the report, workplan, and budget are useful locally to help tell the story of water planning and its successes in the county. Please feel free to arrange your report, workplan, and budget so that it is the most useful to you and your local efforts.

_____ COUNTY
COMPREHENSIVE LOCAL WATER PLANNING
1994 ANNUAL REPORT
&
1995 WORKPLAN AND BUDGET

ANNUAL REPORT (DUE DATE JANUARY 31, 1995)

A. Program Administration / Coordination

1. Measurable Results

Note: List Measurable activities such as # of taskforce meetings, # hours spent on administration, etc. during the year.

2. Expenditures From 1994 Base Grant & Carryover $_____

Note: List here the actual grant dollars that were spent or encumbered.

B. Program Implementation

List measurable activities, accomplishments, and progress during the previous year for each of the broad categories shown below. Also, list under each category the actual grant dollars spent or encumbered.

Note: Counties that organized their workplan around specific projects or initiatives should use them instead of the broad categories shown below.

1. Education and Information

    a. Measurable Results
    b. Expenditures From 1994 Base Grant & Carryover $_____

2. Monitoring and Data Collection

    a. Measurable Results
    b. Expenditures From 1994 Base Grant & Carryover $_____

3. Inventory and Mapping

    a. Measurable Results
    b. Expenditures From 1994 Base Grant & Carryover $_____

4. Land and Water Treatment

    a. Measurable Results
    b. Expenditures From 1994 Base Grant & Carryover $_____

5. Regulation, Ordinances & Planning

    a. Measurable Results
    b. Expenditures From 1994 Base Grant & Carryover $_____

TOTAL 1994 IMPLEMENTATION EXPENDITURES ..... $_____

1994 GRANT FUNDS TO BE CARRIED OVER TO 1995 ACTIVITIES $_____

Note: Expenditures may be greater than $37,500 due to carryover grant dollars from previous program years. Expenditures may also be less than $37,500 with a portion of funds carried forward to 1995 activities.

Note: Counties need to remember that this report does not replace or substitute for an accounting/bookkeeping system. The State of Minnesota, acting through BWSR, does require that the county or delegated local unit of government implementing a grant provide for an audit that meets the standards of the Office of State Auditor. The Audit must cover the duration of a grant and be performed within one year after the end of the grant period or when routinely audited, whichever occurs first.

1995 WORKPLAN (DUE AT TIME OF APPLICATION)

A. Program Administration / Coordination

1. Narrative

Note: The narrative should describe how the water plan will be administered locally, including the identification of the plan's coordinator. This section should also describe how coordination among the various local agencies, departments, and groups, is being ensured and briefly describe their roles in implementation.

B. Program Implementation

Note: In this guidance, the program implementation section is broken down by implementation initiatives such as: education, monitoring, construction, regulation, etc.. Counties may also break down their activities in this section by program, study area, project , etc..

Under each implementation initiative or activity list the activities, programs, or projects, which have been identified in the comprehensive plan and by the water planning taskforce or committee, as a priority for the coming year.

1. Education and Information
   a. Planned Activities, Programs, and/or Initiatives
      Note: List activities, programs, etc. along with measurable results which expected to occur.

   b. Lead Agency

2. Monitoring and Data Collection
   a. Planned Activities, Programs, and/or Initiatives
   b. Lead Agency

3. Inventory and Mapping
   a. Planned Activities, Programs, and/or Initiatives
   b. Lead Agency

4. Land and Water Treatment
   a. Planned Activities, Programs, and/or Initiatives
   b. Lead Agency

5. Regulation, Ordinances and Planning
    a. Planned Activities, Programs, and/or Initiatives
    b. Lead Agency

1995 BUDGET (DUE AT TIME OF APPLICATION)

TYPE OF ACTIVITY OR ELEMENT	EQUIP. BUDGETED	SUPPLIES, DATA COLL. BUDGETED	PERSONNEL BUDGETED	OTHER BUDGETED	TOTAL
Administration/ Coordination	_____	_____	_____	_____	_____
Education/ Information	_____	_____	_____	_____	_____
Monitoring/ Data Collection	_____	_____	_____	_____	_____
Inventory/ Mapping	_____	_____	_____	_____	_____
Land and Water/ Treatment	_____	_____	_____	_____	_____
Regulation, Ordinances/ Planning	_____	_____	_____	_____	_____
Other Programs, Activities, Studies, Etc. List as Needed					
TOTALS	=====	=====	=====	=====	=====

NOTE: For 1995 the budget information being requested is only for the combination of base grant dollars and local levy. At a minimum, the grand total should be equal to $37,500, unless your county is carrying over dollars from 1994. Also the total can be greater, if the budget includes other sources of revenue such as other grants or additional local levy.

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WCA LGU Implementation Summary: Jan. 1994 - Dec. 1994

LGU:

contact person: **phone:**						
Total WCA administration expenses ($)						
No. of Restoration Orders						
No. of Technical Evaluation Panel Mtgs.						
No. of landowner contacts in 1994						
No. of projects where wetland was **avoided**						
A. Number of acres **avoided**						
No. of projects where wetland impact was **minimized**						
B. Number of acres **minimized**						
No. of projects where wetlands were **replaced** via a replacement plan						
C. Number of acres **replaced**						
Wetland type most often impacted						
Wetland type most often use for replacement						
Average size of WCA project						
Total acreage protected or replaced [Total of A, B and C]						
Most Common Project Descriptions: (e.g. roads, lakeshore development)						

a:WCAQUES

1994 ANNUAL

DNR SHORELAND
ADMINISTRATIVE GRANT

NUMERICAL DATA:

1. Number of permits for new construction or substantial improvements issued in shoreland areas: _____

2. Number of Conditional Use Permits processed: _____

   Number issued: _____ Number denied: _____

3. Number of Variances processed: _____

   Number issued: _____ Number denied: _____

   Types: Setbacks _____ Describe (e.g. Ordinary high water level, side yard, road, etc. _____

   _____

   Building Height _____

   Impervious Cover _____

   Density _____ Describe _____

   _____

   Use _____ Describe (e.g. in-home family business use in residential zone, etc.) _____

   _____

   Others _____ Describe _____

   _____

4. Number of onsite sewage treatment permits issued: _____

   Number of inspections for nonconformities: _____

   Describe (e.g. Records Searches, Field Inspections, Map Searches, etc.)

   _____

5. Number of re-zoning or ordinance amendments: _____

Description (if necessary): _____

_____

6. Number of land subdivisions processed: _____

7. Number of Best Management Practices (BMP's) established:

Agriculture _____ Urban _____ Forest _____

8. Number of land use districts established along water bodies: _____

Description (if necessary:) _____

_____

AUTHORIZED SPECIAl STUDIES:

Include brief description and status (e.g. Joint local units of government studies of shared resource and plans, i.e. river or lake watershed management plans, plans for agriculture BMP's Stormwater management plans, etc.). Describe and give status:

_____

_____

_____

_____

_____

County: _____

Signature: _____

If there are questions, please contact Ed Fick, DNR, at (612) 772-7916

RESOLUTION AUTHORIZING SIGNATURE
OF
BOARD OF WATER AND SOIL RESOURCES
NATURAL RESOURCES BLOCK GRANT DOCUMENTS

Commissioner _____ offered the following resolution, No. _____, and moved its adoption.

WHEREAS, _____ County has a State approved comprehensive local water plans, which has been locally adopted pursuant to Minnesota Statutes Chapter 103B.311 or 103B.255, or has State approved comprehensive local water plans, covering 50% of land area in the county, which have been locally adopted pursuant to Minnesota Statutes Chapter 103B.231, 103D.401, or 103D.405; and

WHEREAS, the State of Minnesota, acting by and through its Board of Water and Soil Resources ("BWSR"), has authority to award Natural Resources Block Grants for purposes of implementing comprehensive local water plans, the wetland conservation act, the DNR shoreland program, and the MPCA county feedlot program, to local government pursuant to Laws of Minnesota 1993, Chapter 172, sec. 6, and Laws of Minnesota 1994, Chapter 632, sec. 3; and

WHEREAS, _____ County may assess a levy under its general levy authority to match such grants by BWSR pursuant to Minn. Stat. § 103B.335; and

WHEREAS, the Minnesota Department of Revenue has determined the minimum amount necessary to be raised by _____ County for the base grant portion of the grant under the formula in repealed Minn. Stat. § 275.50, subd. 5; and

WHEREAS, BWSR has determined that _____ County is eligible for a Natural Resources Block Grant of up to $_____ upon BWSR acceptance of the LGU's application and the execution and delivery of a Grant Agreement.

NOW, THEREFORE BE IT RESOLVED:

THAT THE _____ County Board of Commissioners approves of _____ County entering into a Grant Agreement with the State of Minnesota to receive state funds for the implementation of its comprehensive local water plans, the administration of the wetland conservation act, administration of the DNR shoreland program, and MPCA feedlot permit program, under the terms of the Grant Agreement and all statutory requirements; and

THAT THE _____ County Board of Commissioners authorizes the expenditure of $_____ cash and $_____ in-kind contributions to match the Natural Resources Block Grant as specified in Laws of Minnesota 1993, Chapter 172, sec. 6; and the Laws of Minnesota 1994, Chapter 632, sec. 3, and the Grant Agreement.

BE IT FURTHER RESOLVED, THAT THE Chairperson of the County Board of Commissioners and the County Auditor or County Administrator are authorized to execute the Grant Agreement together with all related documents.

Commissioner _____ seconded the adoption of the resolution, and it was declared adopted upon the following vote:

Ayes:_____ Nays:_____

Note: A certified copy of this resolution must be included with the base grant application.

PROPOSED 1995
BWSR NATURAL RESOURCES BLOCK GRANTS
BREAKDOWN BY TYPE

COUNTY	LOCAL WATER PLANNING		WETLAND CONSERVATION ACT		DNR SHORELAND	COUNTY FEEDLOT PROGRAM		BLOCK GRANT TOTAL
	REQUIRED LOCAL LEVY	CLWP BASE GRANT	WCA BASE GRANT	WCA CHALLENGE GRANT	SHORELAND BASE GRANT	MPCA BASE GRANT	MPCA CHALLENGE GRANT	
AITKIN	$4,921	$32,579	$19,200		$14,217			$65,996
ANOKA	$76,972	$0	$36,000		$3,000			$39,000
BECKER	$7,272	$30,228	$16,700		$14,153			$61,081
BELTRAMI	$6,542	$30,958	$36,000		$6,969			$73,927
BENTON	$7,287	$30,213	$36,000		$3,922			$70,135
BIG STONE	$1,654	$35,846	$10,000		$3,105			$48,951
BLUE EARTH	$15,581	$21,919	$19,200		$3,864	$6,450		$51,433
BROWN	$6,133	$31,367	$10,000		$3,084	$7,770		$52,221
CARLTON	$7,358	$30,142	$19,200		$4,802	$6,125		$60,269
CARVER	$17,914	$19,586	$36,000		$3,000	$7,790		$66,376
CASS	$11,003	$26,497	$36,000		$14,098	$6,805		$83,400
CHIPPEWA	$4,124	$33,376	$10,000		$3,015			$46,391
CHISAGO	$8,002	$29,498	$26,700		$6,196			$62,394
CLAY	$10,744	$26,756	$16,700		$3,453			$46,909
CLEARWATER	$2,598	$34,902	$19,200		$3,754			$57,856
COOK	$2,973	$34,527	$12,200		$5,171			$51,898
COTTONWOOD	$4,657	$32,843	$10,000		$3,216	$6,410		$52,469
CROW WING	$19,858	$17,642	$36,000		$25,669			$79,311
DAKOTA	$113,617	$0	$36,000		$3,000			$39,000
DODGE	$3,945	$33,555	$16,700		$3,083	$6,525		$59,863
DOUGLAS	$8,656	$28,844	$19,200		$11,140			$59,184
FARIBAULT	$5,270	$32,230	$10,000		$3,165			$45,395
FILLMORE	$4,120	$33,380	$10,000		$3,106	$10,070		$56,556
FREEBORN	$8,368	$29,132	$10,000		$3,721			$42,853
GOODHUE	$22,476	$15,024	$16,700		$3,216			$34,940
GRANT	$2,279	$35,221	$10,000		$3,607			$48,828
HENNEPIN	$446,486	$0	$36,000		$0			$36,000
HOUSTON	$3,333	$34,167	$12,200		$3,152	$8,750		$58,269
HUBBARD	$6,154	$31,346	$26,700		$10,988			$69,034
ISANTI	$5,260	$32,240	$26,700		$4,909			$63,849
ITASCA	$17,496	$20,004	$19,200		$13,286	$5,860		$58,350
JACKSON	$4,851	$32,649	$10,000		$3,545	$6,440		$52,634
KANABEC	$2,142	$35,358	$26,700		$5,026			$67,084
KANDIYOHI	$10,616	$26,884	$19,200		$8,682			$54,766
KITTSON	$3,338	$34,162	$16,700		$3,046			$53,908
KOOCHICHING	$3,507	N/E	$19,200		$3,147			$22,347
LAC QUI PARLE	$2,645	$34,855	$10,000		$3,020	$6,195		$54,070
LAKE	$2,892	$34,608	$16,700		$5,746			$57,054
LAKE OF THE WOODS	$1,034	$36,466	$26,700		$4,205	$5,330		$72,701
LE SUEUR	$5,929	$31,571	$16,700		$6,163			$54,434
LINCOLN	$1,981	$35,519	$10,000		$3,211			$48,730

PROPOSED 1995
BWSR NATURAL RESOURCES BLOCK GRANTS
BREAKDOWN BY TYPE

COUNTY	LOCAL WATER PLANNING		WETLAND CONSERVATION ACT		DNR SHORELAND	COUNTY FEEDLOT PROGRAM		BLOCK GRANT TOTAL
	REQUIRED LOCAL LEVY	CLWP BASE GRANT	WCA BASE GRANT	WCA CHALLENGE GRANT	SHORELAND BASE GRANT	MPCA BASE GRANT	MPCA CHALLENGE GRANT	
LYON	$6,851	$30,649	$10,000		$3,169			$43,818
MCLEOD	$7,476	$30,024	$16,700		$3,513			$50,237
MAHNOMEN	$1,248	$36,252	$12,200		$4,032	$5,770		$58,254
MARSHALL	$4,219	$33,281	$19,200		$3,000	$6,165		$61,646
MARTIN	$8,218	$29,282	$10,000		$3,563	$7,200		$50,045
MEEKER	$4,780	$32,720	$19,200		$5,912			$57,832
MILLE LACS	$3,715	$33,785	$19,200		$6,012	$7,170		$66,167
MORRISON	$5,767	$31,733	$26,700		$4,826	$10,700		$73,959
MOWER	$8,417	$29,083	$12,200		$3,893			$45,176
MURRAY	$3,694	$33,806	$10,000		$3,832	$6,975		$54,613
NICOLLET	$7,041	$30,459	$16,700		$3,092	$6,760		$57,011
NOBLES	$6,222	$31,278	$10,000		$3,064	$7,195		$51,537
NORMAN	$2,883	$34,617	$12,200		$3,013	$5,875		$55,705
OLMSTED	$37,203	$297	$26,700		$3,735			$30,732
OTTER TAIL (2 SWCD'S)	$13,778	$23,722	$19,200		$23,775			$66,697
PENNINGTON	$2,377	$35,123	$16,700		$3,301	$5,840		$60,964
PINE	$5,245	$32,255	$26,700		$7,508			$66,463
PIPESTONE	$2,393	$35,107	$10,000		$3,000	$7,010		$55,117
POLK (2 SWCD'S)	$9,226	$28,274	$16,700		$4,157	$6,515		$55,646
POPE	$2,691	$34,809	$12,200		$5,246	$7,090		$59,345
RAMSEY	$163,842	$0	$26,700		$0			$26,700
RED LAKE	$948	$36,552	$12,200		$3,356	$5,790		$57,898
REDWOOD	$5,768	$31,732	$10,000		$3,000			$44,732
RENVILLE	$6,633	$30,867	$10,000		$3,066			$43,933
RICE	$11,662	$25,838	$19,200		$5,162	$7,420		$57,620
ROCK	$3,000	$34,500	$10,000		$3,000	$7,015		$54,515
ROSEAU	$3,328	$34,172	$26,700		$3,114			$63,986
ST. LOUIS (2 SWCD'S)	$42,879	$0	$26,700		$26,780			$53,480
SCOTT	$24,100	$13,400	$36,000		$3,000			$52,400
SHERBURNE	$26,291	$11,209	$36,000		$6,100			$53,309
SIBLEY	$3,678	$33,822	$12,200		$3,117	$7,620		$56,759
STEARNS	$27,922	$9,578	$36,000		$11,771			$57,349
STEELE	$8,522	$28,978	$12,200		$3,347			$44,525
STEVENS	$2,473	$35,027	$10,000		$3,156	$5,985		$54,168
SWIFT	$3,034	$34,466	$12,200		$3,178			$49,844
TODD	$3,515	$33,985	$19,200		$6,183			$59,368
TRAVERSE	$2,027	$35,473	$10,000		$3,260			$48,733
WABASHA	$4,432	$33,068	$12,200		$4,241			$49,509
WADENA	$1,981	$35,519	$16,700		$3,645			$55,864
WASECA	$4,845	$32,655	$12,200		$3,539	$6,045		$54,439
WASHINGTON	$62,152	$0	$36,000		$3,000			$39,000

PROPOSED 1995
BWSR NATURAL RESOURCES BLOCK GRANTS
BREAKDOWN BY TYPE

COUNTY	LOCAL WATER PLANNING		WETLAND CONSERVATION ACT		DNR SHORELAND	COUNTY FEEDLOT PROGRAM		BLOCK GRANT TOTAL
	REQUIRED LOCAL LEVY	CLWP BASE GRANT	WCA BASE GRANT	WCA CHALLENGE GRANT	SHORELAND BASE GRANT	MPCA BASE GRANT	MPCA CHALLENGE GRANT	
WATONWAN	$3,036	$34,464	$10,000		$3,163			$47,627
WILKIN	$2,821	$34,679	$10,000		$3,026			$47,705
WINONA	$9,870	$27,630	$12,200		$3,051			$42,881
WRIGHT	$24,335	$13,165	$36,000		$12,233			$61,398
YELLOW MEDICINE	$3,501	$33,999	$10,000		$3,020	$6,180		$53,199
MARSHALL – BELTRAMI SWCD			$5,000					$5,000
NORTH SHORE MGMT. BD.					$50,000			$50,000
TOTALS	**$1,502,027**	**$2,407,428**	**$1,634,500**	**$0**	**$518,000**	**$226,840**	**$0**	**$4,786,768**

WR-01087-01

STATE OF MINNESOTA
MINNESOTA BOARD OF WATER AND SOIL RESOURCES
NATURAL RESOURCES BLOCK GRANT AGREEMENT

Amount $ _____ **Natural Resources Block Grant**

Local Governmental Unit: _____

Address: _____
_____
_____

Agreement Period: January 15, 1995 to January 15, 1997

THIS AGREEMENT is entered into between the State of Minnesota, acting by and through its Board of Water and Soil Resources, hereinafter referred to as the "Board", and the above named Local Governmental Unit, hereinafter referred to as the "LGU".

WHEREAS, the Minnesota Legislature, by Laws of Minnesota 1993, Chapter 172, sec. 6, established the Natural Resources Block Grant, hereinafter referred to as the "NRBG", to assist with the implementation of comprehensive local water plans, wetland conservation act (wca), shoreland programs, and county feedlot permit programs; and

WHEREAS, Minnesota Statutes 103B.101 subd. 9. (1), and 103B.3369, Subd. 5., and laws of Minnesota 1993, Chapter 172, sec. 6, and Laws of Minnesota 1994, Chapter 632, sec. 3, authorize the Board to award grants; and

WHEREAS, a LGU must meet the criteria established by statute and the Board to be eligible to receive NRBG grant funds; and

WHEREAS, the Board has determined the LGU to be eligible and has selected the LGU to participate in the NRBG; and

WHEREAS, the LGU has provided a certified copy of the LGU resolution authorizing the LGU's participation in the NRBG including the required local match, attached hereto as Exhibit A.

NOW THEREFORE, it is agreed between the parties as follows:

I. LGU DUTIES AND SPECIFIC PROGRAM REQUIREMENTS

The LGU is responsible for the specific duties for the NRBG, as follows:

1. **TAX LEVY.** The LGU's participation in the NRBG is conditioned upon LGU expenditure of cash and/or in-kind contributions to match the NRBG as specified in Laws of Minnesota 1993, Chapter 172, sec. 6; and Chapter 632, sec. 3; and the Board grant allocation and match requirements adopted by the Board.

2. **REPORTING.** The LGU shall submit an annual progress report to the Board by January 31 of each year on the status of program implementation by the LGU. Information provided must conform to the requirements set by the Board.

3. **COMPLIANCE.** The LGU shall comply with Minnesota Statutes Section 103B.3361 through 103B.3369 (1990); and Minnesota Rules Chapter 8405, Laws of Minnesota 1991, Chapter 354; as amended by Laws of Minnesota 1993, Chapter 175; Minnesota Rules Chapter 8420; Minnesota Statutes Section 103F.201; Minnesota Rules Chapter 6120; and Laws of Minnesota 1994, Chapter 632, sec.3; and amendments thereto, for comprehensive water planning, the wetland conservation act, the DNR shoreland management program, and the county feedlot program.

4. **WETLAND CONSERVATION ACT FUNDS TRANSFER.** As required by the Board, the LGU's participation in the NRBG is conditioned upon the transfer of a minimum $5,000 to the Soil and Water Conservation District (SWCD) for Wetland Conservation Act activities, as agreed upon by the county and SWCD. This transfer must occur within 30 days of receipt of NRBG funds by the LGU.

II. PROGRAM APPLICATION

The LGU shall perform the duties and responsibilities described in the NRBG application, as approved by the Board, and on file at the Board office in St. Paul, Minnesota. The approved application is incorporated into this Agreement by reference and made a part hereof.

III. GENERAL TERMS AND CONDITIONS

A. TERMS OF PAYMENT

1. Grant payments shall be made in one installment promptly after the effective date of this Agreement. The Board shall pay the Grant Amount stated on page 1. The total obligation of the Board shall not exceed the Grant Amount.

2. Any state funds remaining unspent, unencumbered, or becoming unobligated after the expiration of the Agreement Period stated above shall be returned to the Board within two months of the expiration of the Agreement Period.

3. State funds may not be used for costs incurred before or after the end of the Agreement Period stated above, unless approved by the Board.

4. Payment to the LGU is made under the condition that all work performed pursuant to this Agreement shall be performed to the satisfaction of the Board and in accordance with all applicable federal and state laws, including rules and regulations, and local ordinances. The LGU shall use the funds provided herein only for the purposes stated in the NRBG application, as approved by the Board, and this Agreement.

B. PERIOD OF AGREEMENT. This Agreement shall be effective upon such date as it is executed as to encumbrance by the Commissioner of Finance, and shall remain in effect until the expiration of the Agreement Period stated above, or until all of the obligations set forth in this Agreement have been satisfactorily fulfilled, whichever occurs first.

C. CANCELLATION AND REVOCATION

1. The Board may cancel this entire Agreement for just cause. "Just cause" means that the LGU or its designee is not disbursing grant funds in accordance with established Board or state procedures, or has otherwise breached a term of this Agreement. The LGU may cancel this Agreement with or without just cause. The Board or the LGU must give written notice 14 calendar days prior to cancellation. In the event of cancellation by the Board or LGU, the LGU is entitled to payment, determined on a pro rata basis, for eligible work satisfactorily performed and the remaining grant funds must be promptly returned to the Board.

2. At the request of any state agency commissioner, the Board shall revoke and the LGU shall return to the Board that portion of the state funds used to support the NRBG not in compliance with the rules of that requesting agency.

D. ASSIGNMENT. The LGU shall neither assign nor transfer any rights or obligations under this Agreement without the prior written consent of the Board, except for contracts with other local units of governments authorized by Section 103B.3369. The LGU may contract with others, including appropriate local units of government to perform the work specified in the Agreement. In all cases the LGU shall remain responsible for the work it authorizes and/or contracts with others to perform, and, shall not delegate its responsibility under this Agreement.

E. AMENDMENTS. Any amendments to this Agreement shall be in writing, and shall be executed by the Board and the LGU.

F. COST OVERRUNS. The LGU agrees that any cost overrun is the sole financial responsibility of the LGU.

G. LIABILITY. The LGU agrees to indemnify and save and hold the Board, its agents, and employees, harmless from any and all claims or causes of action arising from the performance of this Agreement by the LGU, its designated local units of government, contractors, agents, or employees. This clause shall not be construed to bar any legal remedies a LGU may have for the Board's failure to fulfill its obligations pursuant to this Agreement. This clause shall survive the expiration of the Agreement Period or the expiration or termination of this Agreement.

H. AUDITS. The books, records, documents, and accounting procedures and practices of the LGU and its designated local units of government and contractors relevant to the NRBG, may be examined at any time by the Board or Board's designee. The LGU or designated local unit of government implementing this Agreement shall provide for an audit that meets the standards of the Office of State Auditor. The audit must cover the duration of the Agreement Period and be performed within one year after the end of the Agreement Period or when routinely audited, whichever occurs first. Copies of the audit report must be provided to the Board. The LGU or delegated local unit of government shall maintain all records relating to the receipt and expenditure of grant funds for six years from the termination of the Grant Agreement.

I. AFFIRMATIVE ACTION. The LGU certifies that it is either exempt from obtaining a certificate of compliance from the Commissioner of Human Rights pursuant to Minnesota Statutes Section 363.073, or has obtained said certificate.

J. NONDISCRIMINATION. As a condition of receiving financial support for the NRBG, GRANTEE assures that it will meet all applicable requirements of the Civil Rights Act of 1964, as amended, (including nondiscrimination on the basis of disability conditions) and, of any applicable state civil rights statutes.

K. WORKERS COMPENSATION. The LGU assures that it has provided, or shall provide, acceptable evidence of compliance with the workers' compensation insurance coverage requirement of Minnesota Statutes, Section 176.181, Subdivision 2 (1992).

L. ANTITRUST. LGU hereby assigns to the State of Minnesota any and all claims for overcharges as to goods and/or services provided in connection with this Agreement resulting from antitrust violations which arise under the antitrust laws of the United States and the antitrust laws of the State of Minnesota.

M. DATA PRIVACY ACT. The LGU agrees to indemnify and save hold the STATE, its agents and employees, harmless from any and all claims or causes of action arising from a violation of any provision of Minnesota Statutes, Chapter 13.

N. DATA COMPATIBILITY. The LGU shall prepare and maintain all information gathered as a result of this project in a format which is compatible with the data systems employed by the principal information users of the State of Minnesota.

M. CAPITAL EQUIPMENT. The title for equipment purchased with the funding provided in this Agreement shall be taken in the name of the State of Minnesota. The equipment will remain the property of the State for its useful life. After the Grant Period, the equipment may remain in the custody of the LGU so long as it is used for the purposes of promoting and supporting the coordination of shoreland management activities. The State may take possession of the equipment at which time it ceases to be used for the intended purpose and at such time as it becomes necessary to use it for State purposes.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed intending to be bound thereby.

LOCAL GOVERNMENTAL UNIT

APPROVED:

_____ LGU
BY ITS LGU
BOARD OF COMMISSIONERS

By: _____ By: _____

Title: Chairperson Title: LGU Auditor/Administrator

Date: _____ Date: _____

STATE OF MINNESOTA

BOARD OF WATER AND SOIL RESOURCES

By: _____

Title: _____

Date: _____

COMMISSIONER OF ADMINISTRATION

By: _____

Title: _____

Date: _____

APPROVED AS TO FORM AND EXECUTION BY THE ATTORNEY GENERAL

By: _____
Assistant Attorney General

Date: _____

COMMISSIONER OF FINANCE
Encumbered Department of Finance

By: _____

Title: _____

Date: _____

Attachments:

Exhibit A: Certified copy of LGU Resolution authorizing the LGU's participation in the NRBG

1/25/95

Minnesota Board of Water & Soil Resources

One West Water Street
Suite 200
St. Paul, MN 55107
(612) 296-3767
Fax (612) 297-5615

Field Offices

Northern Region:
394 S. Lake Avenue
Room 403
Duluth, MN 55802
(218) 723-4752
Fax (218) 723-4794

3217 Bemidji Avenue N.
Bemidji, MN 56601
(218) 755-4235
Fax (218) 755-4201

217 S. 7th Street
Suite 202
Brainerd, MN 56401-3660
(218) 828-2383
Fax (218) 828-6036

Southern Region:
Highway 15 S.
Box 756
New Ulm, MN 56073
(507) 359-6074
Fax (507) 359-6018

40–16th Street SE
Suite A
Rochester, MN 55904
(507) 285-7458
Fax (507) 280-2875

Box 267
1400 E. Lyon Street
Marshall, MN 56258
(507) 537-6060
Fax (507) 537-6368

Metro Region:
One West Water Street
Suite 250
St. Paul, MN 55107
(612) 282-9969
Fax (612) 297-5615

An equal opportunity employer

Printed on recycled paper

DATE: January 13, 1995

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

FROM: Ronald D. Harnack, Executive Director

SUBJECT: January 25, 1995 BWSR Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, January 25, 1995 beginning at 9:00 a.m. The meeting will be held in the new BWSR conference room at One West Water Street, St. Paul (see attached map). The agenda and informational materials are enclosed for your review. Following is some background information regarding the agenda items:

SUMMARY OF BOARD AGENDA

CONSENT AGENDA ITEMS: These will be items that are rather routine and are not controversial that the Board can quickly act on as a whole or with minimal discussion.

5A: FOREST LAKE WMO BOUNDARY CHANGE

5B: COTTAGE GROVE RAVINE NAME CHANGE

5C: COTTAGE GROVE RAVINE MANAGER TERM

5D: FEDERAL FLOOD DISASTER WELL SEALING GRANTS: BWSR through the Department of Health has received $500,000 for well sealing grants to local governments. The process will be consistent with current well-sealing grants with a priority to flood prone wells. Board approval to proceed is requested.

5E: ADOPTION OF RESOLUTION TO RECEIVE FEDERAL FLOOD DISASTER REIMBURSEMENT: $'s for cost-share projects has finally been approved. The resolution is needed as part of the federal process.

REGULAR AGENDA

ITEM 6: MINNESOTA RIVER CITIZENS' ADVISORY COMMITTEE'S REPORT TO MPCA: During the past two years the committee has deliberated on the issues relating to water quality improvements in the Minnesota River Basin. This report is a culmination of their efforts. Several of the recommendations of the report relate directly to BWSR programs and can be considerations in future policy decisions of the Board. The report is enclosed in the packet. **DISCUSSION ITEM.**

ITEM 7: FORESTRY/WETLAND BEST MANAGEMENT PRACTICES: A committee of forestry interests have prepared a document that sets forth best management practices that are appropriate for forestry activities to minimize the impact on wetlands. These are voluntary practices that if endorsed by the BWSR would be published and broadly distributed to the forestry industry, local governments and agencies as guidance. Representatives from the committee will present the report. **DISCUSSION AND DECISION ITEM.**

ITEM 8: WETLAND HERITAGE ADVISORY COMMITTEE (WHAC) REPORT & RECOMMENDATIONS: The WHAC has met on several occasion in the past three months to consider input from various interests relating to strengths and weaknesses of the Wetland Conservation Act and related rules. Based on this input the WHAC has filed a report with the Board addressing several changes that they recommend to improve the implementation of the program. It is recommended that the Board accept the report of the WHAC and decide if any or all of the recommendations with or without change should be endorsed by the Board. The action of the Board will guide legislative efforts. **DISCUSSION & DECISION ITEM.**

ITEM 9: GRANTS ALLOCATIONS:
ENGINEERING GRANTS: The Board endorsed the concepts of the engineering teams for the 11 areas last month and directed staff to provide more information relating to the costs, status of joint powers agreements, finalization of draft grant agreements so that the Board would be more aware of the issues relating to a final decision. The packet includes allocation recommendations; the model grant agreement; and a joint powers agreement. The staff recommendation is to adopt the allocation to the 11 areas after finalization of the JPA; and endorse the criteria for judging adequacy of the host district. The budget allocation reflects agency base funding for the engineering grants. The BWSR grant is projected to cover the local costs for the next two years. However, after June 1997 the JPA's would have to augment the state with approximately $12,000 per year to maintain the integrity of the engineering team. **DECISION ITEM.**

FY 95 ROLLOVER ALLOCATION: Packet reflects the recommendations of the staff. Too many requests and not enough $'s.

GENERAL SERVICES CARRYOVER: Each biennium grant $'s are reserved to broad services to the districts. This includes raingauges; envelopes and letterhead paper, etc. Each year there has been a reduction in the request for these services. The remaining $'s that has varied from as little as $5,000 to as much as $25,000 has been allocated to unique district projects at the last quarter of the biennium. This is the last year that this will be done as the service items will be absorbed into the general administration of the agency. Therefore, next year 100% will be allocated for direct general services to districts. **DECISION ITEM.**

ITEM 10: POLICY LEGISLATION: The Governor's office has approved the local water planning and watershed district policy legislation for introduction. The policy issues are clearly reflected in the outline attached. The MAWD has endorsed the watershed district changes and we have worked with some of the metro water management organizations on the local water planning changes. Although most of the changes relate more to clarification they are real policy issues that will broadly benefit the local governments; increase their capacity to implement programs; enhance local accountability; enhance public responsiveness; increase BWSR flexibility to bring expectations within the staffing capacity of the agency. **DISCUSSION & DECISION ITEM.**

ITEM 11: BUDGET: I will update on the budget to the degree that the Governor's budget has been released.

If you have additional agenda items or require additional information please feel free to give me a call. Travel safely, I look forward to seeing you on the 25th!

RDH:mja
Enc.

BOARD OF WATER AND SOIL RESOURCES
CONFERENCE ROOM
ONE WEST WATER STREET
ST. PAUL, MINNESOTA 55107
JANUARY 25, 1995

AGENDA

9:00 a.m.

1. Call Meeting to Order

2. Adopt Agenda

3. Minutes of December 7, 1994

4. Reports
   - Chairman's Report - Jim Nielsen
   - Executive Director's Report - Ron Harnack
   - Committee Reports
     - Education Committee - Tim Hvidsten
     - Feedlot Advisory Committee - Jim Rossman
     - Soil Conservation Committee - Glenn Annexstad
     - Dispute Resolution Committee - Kathy Roer

5. Consent Agenda Items
   - A. Forest Lake WMO Boundary Change - Bruce Sandstrom
   - B. Cottage Grove Ravine Watershed District Name Change - Bruce Sandstrom
   - C. Cottage Grove Ravine Watershed District Petition to Amend Manager Terms - Bruce Sandstrom
   - D. Federal Well Sealing Cost-Share - Eric Mohring
   - E. Resolution to Receive Federal Flood Disaster Reimbursement - Wayne Zellmer

9:30 a.m.

6. Minnesota River Citizens' Advisory Committee's Report to MPCA - Jeff Nielsen, BWSR, and Lynne Kolze, MPCA

10:15 a.m. BREAK

10:30 a.m.

7. Forestry/Wetland Best Management Practices - Mike Phillips, DNR Forestry

11:00 a.m.

8. Wetland Heritage Advisory Committee Report
   Board Recommendation Regarding Wetland Conservation Act Policy Changes

Noon	LUNCH	
1:00 p.m.	9.	Status Report of Appeals - Ron Harnack
	10.	Crow Wing SWCD Request for Nomination District Boundary Change - Jim Birkholz
	11.	Grants Allocation - Wayne Zellmer • Engineering Grants • FY95 Cost-Share Rollover • General Services Carry-Over
1:30 p.m.	12.	Policy Legislative Proposals - Doug Thomas • Local Water Planning • Watershed District Amendments
2:00 p.m.	13.	Budget Status FY96-97 - Ron Harnack
	14.	Advisory Comments • Paul Burns, Department of Agriculture • Wayne Edgerton, Department of Natural Resources • Wayne Anderson, Pollution Control Agency • Fred Bergsrud, Minnesota Extension Service • Kim Benson-Johnson, Department of Health • Steven Chick, Natural Resources Conservation Service • Pat Wulff, Minnesota Lakes Association • Jim Schafer, MASWCD • Dan Livdahl, MACDE • Franklin Denn, MAT • Vern Johnson, MAWD
	15.	Board Issues - discussion, comments, action needed
	16.	Next BWSR Meeting - February 22, 1995
3:00 p.m.	Adjourn	

BOARD OF WATER AND SOIL RESOURCES
CONFERENCE ROOM
ONE WEST WATER STREET
ST. PAUL, MINNESOTA 55107
JANUARY 25, 1995

PRELIMINARY AGENDA

9:00 a.m.

1. Call Meeting to Order

2. Adopt Agenda

3. Minutes of December 7, 1994

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   - Executive Director's Report - Ron Harnack
   - Committee Reports
     - Education Committee - Tim Hvidsten
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	13.	Board Issues - discussion, comments, action needed
	14.	Next BWSR Meeting - February 22, 1995
3:00 p.m.	Adjourn	

BOARD OF WATER AND SOIL RESOURCES
ROOM 112 STATE CAPITOL
75 CONSTITUTION AVENUE
ST. PAUL, MINNESOTA 55155
DECEMBER 7, 1994

BOARD MEMBERS PRESENT: Jim Nielsen, Jim Rossman, Warren Rodning, Tim Hvidsten, Dwain Otte, Marvell Tripp, Ted Lovdahl, Glenn Annexstad, Kathy Roer, Barb Uppgaard, and Howard Peterson.

BOARD MEMBERS ABSENT: Barbara Cobb.

AGENCY MEMBERS PRESENT:
Wayne Anderson, Pollution Control Agency (PCA)
Fred Bergsrud, Minnesota Extension Service (MES)
Kim Benson-Johnson, Department of Health (MDH)
Robert Patton, Department of Agriculture (MDA)

AGENCY MEMBERS ABSENT:
Department of Natural Resources

OTHERS PRESENT:
Matt Seltzer, Attorney General's office
Dave Benner, Natural Resources Conservation Service (NRCS)
Dan Livdahl, Minnesota Association of Conservation District Employees (MACDE)

STAFF PRESENT:
Ron Harnack
Jim Birkholz
Doug Thomas
Dale Krystosek
Mark Nelson
Al Kean
Greg Larson
Wayne Zellmer

Chairman Nielsen called the meeting to order at 9:07 a.m.

Ron Harnack recognized board members Barbara Uppgaard, Howard Peterson, and Warren Rodning, as their terms of office as board members expires in January 1995. Ron presented each with a certificate of commendation from Governor Carlson and a plaque from the BWSR. Chairman Nielsen deeply appreciated their concern and efforts as board members, and wished them well in their other activities.

Ron announced that Joan Miska has indicated that she will be resigning from the Wetland Heritage Advisory Committee.

** 94-64 **Adopt Agenda** - Moved by Tripp, seconded by Otte, to adopt the agenda as presented. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

** 94-65 **Minutes of October 26, 1994** - Moved by Otte, seconded by Annexstad, to approve the minutes of October 26, 1994, as circulated. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

Chairman's Report - Chairman Nielsen briefly commented on the 1995 Farm Bill. He also briefly commented on the BWSR's legislative audit.

Executive Director's Report - Ron Harnack reported that he met with the environmental cluster group on the budget/environmental package. He stated that the various conventions are underway, good participation, and BWSR staff has been successfully using them to touch base with local governments on many issues. Otte and Uppgaard commended staff on great communications with county commissioners at the AMC conference.

Committee Reports

Feedlot Committee - Jim Rossman reported that he's been invited by the Department of Agriculture and Pollution Control Agency to be an advisory member of the new feedlot advisory committee, with Al Kean as staff representative.

Education Committee - Tim Hvidsten reported that the education committee will be meeting in near future.

Dispute Resolution Committee (DRC) - Kathy Roer reported that the DRC heard two matters this month;

1) Wallace vs. Riley-Purgatory-Bluff Creek Watershed District; this matter is a wetland mitigation appeal that was first heard 11/10/94. The hearing was continued on 12/6/94. The DRC's decision was unanimous to remand the issue back to the Riley-Purgatory-Bluff Creek Watershed District, under permanent rules. Moved by Roer, seconded by Rossman, to approve the DRC's recommendation to BWSR to remand the issue back to the watershed

** 94-66

district. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Rodning, Roer, Rossman, Tripp, and Uppgaard. Abstained: Peterson and Nielsen. Opposed: None. Carried.

2) The second appeal was the League of Women Voters vs. City of Coon Rapids. This matter was heard on 12/6/94. The appeal was whether or not the local governmental unit (LGU) met BWSR terms of process. Matt Seltzer, Attorney General's Office, recommended that the DRC review additional documents to be included as matter of record. The DRC's unanimous vote was to affirm the LGU's decision; and to exclude exhibit G and H from the record. Moved by Roer, seconded by Otte, to affirm the DRC's recommendation. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

** 94-67

Roer said that the Trout Unlimited vs. Shakopee appeal was somewhat premature. The DRC decided to dismiss the appeal at this time without prejudice. Moved by Roer, seconded by Tripp, that the Board recommend dismissal of the appeal without prejudice. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

** 94-68

Chairman Nielsen instructed staff to prepare orders consistent with board's decisions.

Roer commented that there have been genuine differences regarding interpretations of some wetland rule and law provisions. Ron stated that several of these issues have been brought up before Wetland Heritage Advisory Committee (WHAC) and will be part of WHAC's report brought before the BWSR in January. Roer stated that interpretations need to be consistent.

Water Plan Review Committee - Warren Rodning reported that the Water Plan Review Committee met on December 6, 1994, to review Koochiching County Water Plan; Wild Rice Watershed District Water Plan; Pelican River Watershed District Water Plan. The Review Committee recommended that the full BWSR approve these plans. Moved by Rodning, seconded by Lovdahl, to approve the Koochiching County Water Plan; Wild Rice Watershed District Water Plan; and the Pelican River Watershed District Water Plan. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

** 94-69

1995 Natural Resource Block Grant Allocation - Wayne Zellmer asked BWSR to authorize grants as proposed. Staff recommendation is to only withhold the Wetland Conservation Act (WCA) portion for next year if the county has not adopted the WCA; or if they have not returned the funds to withhold the entire block grant until the WCA 1994 funds are returned. Discussion followed. Moved by Tripp, seconded by Uppgaard, to withhold block grant from three counties - discussion followed. Uppgaard withdrew her second to the motion. Moved by Lovdahl, seconded by Rodning, to accept the block grant, except withhold 1995 WCA funds if they have not adopted, withhold 1994 amount owed. Discussion followed. Rodning withdrew his second to the motion. Moved by Lovdahl,

seconded by Otte, to authorize 1995 block recommendations as made by staff subject to withholding 1995 WCA portion of block grants for those counties who have not adopted WCA; pursue collection efforts; and to give legal counsel authority to commence legal action if necessary. Discussion followed; motion withdrawn. Roer offered another motion, seconded by Tripp, to authorize 1995 grants as prepared by staff, with assumption that WCA funds will be withheld from the five counties that have not adopted; counties that have not adopted WCA and not returned their 1994 WCA grant monies will have their entire block grant withheld until monies are returned.

Chairman Nielsen called for a recess in the meeting to correct language in Roer's motion.

Chair recessed the meeting at 10:40 a.m. The meeting reconvened at 11:00 a.m.

** 94-70 The motion by Roer, seconded by Tripp, will read, "Authorize 1995 grants as prepared by staff and withhold 1995 WCA portion from those counties that have not adopted WCA. If by December 15, 1994, any county which has not adopted WCA has not returned the 1994 WCA portion of its 1994 grant, the entire 1995 block grant to that county will be withheld until such time as those funds are returned. Rodning said he opposes this motion, due to legal, moral and political reasoning. Affirmative: Annexstad, Otte, Peterson, Roer, Tripp, and Nielsen. Opposed: Hvidsten, Lovdahl, Rodning, Rossman, and Uppgaard. Carried.

Wetland Heritage Advisory Committee (WHAC) Status Report and Status of Non-Adoption Counties - Greg Larson said WHAC met on November 2 and 14. Joan Miska asked Greg to set up ad hoc committee to embellish on issues. It was reported that Joan Miska will be retiring as member of the WHAC. The WHAC will make recommendations to full BWSR at January meeting. Chairman Nielsen said once we have legislative agenda, and we understand what administration's position is, we may have to be active to get support.

Status of Appeals Before the Board - Jim Birkholz gave an update on an appeal complaint filed, Audubon vs. Nine Mile Creek Watershed District.

Jim gave a synopsis of the agreement:

BWSR will expedite review of Nine Mile Creek Watershed District Water Management plan in cooperation with commenting agencies; BWSR will temporarily stay a decision on the Audubon complaint; parties will share information on progress at least monthly; BWSR will approve the water management plan when the law and rule requirements are met; the watershed district will adopt and implement the water management plan within 120 days of Board approval.

1. Approve the basis of the draft agreement between BWSR, Audubon and Nine Mile Creed WD;

2. Appoint an ad hoc committee to work with staff regarding guidance for approval of

2. Appoint an ad hoc committee to work with staff regarding guidance for approval of second generation WMO plans. The committee would be required from now until the approval of the three second generation plans currently in review;

3. Initiate development of a policy regarding non-adoption of any WMO plans after BWSR approval.

** 94-71 Uppgaard commended this process. Moved by Uppgaard, seconded by Rossman, to approve the agreement. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

Chairman Nielsen asked that Barb Cobb and Dwain Otte be on the ad hoc committee to work with Jim on this.

** 94-72 Fridley vs. Rice Creek Watershed District - Staff recommendation is to hold this appeal in abeyance pending judicial reviews currently underway, and not to go before DRC. Moved by Annexstad, seconded by Otte, to accept staff's recommendation to hold this appeal in abeyance pending judicial reviews currently underway and not go before the DRC. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

Engineering/Technical Committee Recommendations - Al Kean gave status update of implementation of technical staffing within joint powers areas of SWCDs. Al said staff requested endorsement of:

1. concept of 11 joint powers agreement areas statewide;
2. an engineer/technical team in each area;
3. granting procedure.

Discussion followed. Chairman Nielsen has a problem with who the fiscal agent is; staff needs to come back with an executed contract.

Chairman recessed for lunch at 12:25 p.m. The meeting reconvened at 1:10 p.m.

** 94-73 D'Wayne DeZiel arrived at the meeting and continued the discussion on the SRF technical staffing. Chairman Nielsen said accountability needs to be clarified. Uppgaard asked if staff could come back next month with more information on local acceptance and joint powers agreement status. Moved by Rodning, seconded by Lovdahl, to approve concept and procedures, as expressed in Kean's report of 12/6/94 to BWSR, with exception of paragraph E. Affirmative: Annexstad, Hvidsten, Lovdahl, Otte, Peterson, Rodning, Roer, Rossman, Tripp, Uppgaard, and Nielsen. Opposed: None. Carried.

Budget Blue Print - Ron Harnack updated the BWSR on the first biennial budget from the environmental agencies. The key themes to the budget this year are ecosystems, sustainable

development, and delineation of roles and responsibilities. Board members desiring more detail regarding the executive budget process should call Ron.

Chairman Nielsen adjourned the meeting at 1:25 p.m.

Respectfully submitted,

D. James Nielsen
Chairman

Ron

LEGISLATIVE WATER COMMISSION

300 Centennial Building • St. Paul, Minnesota 55155 • (TDD only: 296-9926) • (612) 297-7905
Susan Schmidt, Director

January 17, 1995

JAN 18 1995

Chairman Jim Nielsen
Board of Water and Soil Resources
One Water Street, Suite 200
St. Paul, MN 55107

Dear Chairman Nielsen:

I am writing to request information from the Board of Water and Soil Resources on current water-related expenditures and revenues.

Funding for various water-related programs is discussed by the LWC on an on-going basis. For example, members are currently discussing possible groundwater protection amendments many of which involve new funding. (Attachment 1 includes a list of draft groundwater protection amendments.) As part of this discussion, LWC members respectfully request your response to the following three general questions:

1) What level of biennial funding is currently dedicated to water quality and/or quantity protection and/or management in your agency? Please do not limit your response to groundwater programs. We are trying to get a sense of current funding for all water programs. In addition, since many programs have multiple objectives we suggest including any program with at least a water-related objective.

2) What revenue sources are currently used for each of these water programs? What fees are collected by the agency for these water-related programs? What is the current status of these revenue sources?

3) What funding sources (or savings) would your agency suggest for the listed improvements to groundwater protection programming included in Attachment 1?

We would appreciate your response to these questions by noon on Tuesday, January 24th. I apologize for the very short timeline but we are trying to pull together this information for the already scheduled LWC meeting on January 25th. You can deliver, mail or fax your response to Susan Schmidt, Director, LWC, 300 Centennial Building, St. Paul, 55155, 297-7905 (phone) 296-3698 (fax).

Senate: Steve Dille • Jane Krentz • Steve Morse • Steve Murphy • Len Price, Chair
House: Dave Bishop, Secretary • Henry Kalis, Vice Chair • Teresa Lynch • Willard Munger • Steve Trimble

Original printed with soy-based ink on 100% post-consumer recycled paper

I want to thank you in advance for your assistance. Please call Susan if you have questions or comments.

Sincerely,

Len Price

Senator Len Price, Chair, LWC

cc: Ron Harnack

ATTACHMENT 1

LEGISLATIVE WATER COMMISSION
Possible Amendments to the Groundwater Protection Act

DRAFT FOR DISCUSSION ONLY

Prepared by Susan Schmidt
January 17, 1995

I. POSSIBLE AMENDMENTS

1. Fund **ambient groundwater monitoring** program at PCA so that progress on groundwater protection can be monitored and evaluated. **$1,400,000 / biennium. Approximately $500,000 / biennium is currently in the PCA base; approximately $900,000 is new money.** PCA is exploring a source of funding for this monitoring activity.

2. Fund DNR/MGS to **complete sensitivity mapping** -- county atlases and regional hydrogeologic assessments -- over the next 10 years. **$2,500,000 / biennium. Approximately $665,000 biennium is currently in the DNR base; approximately $1,900,000 would be new money.** No specific source of funding has been identified. Recall that LCMR funded sensitivity mapping in the last two biennium.

3. Fund **two joint BWSR / MES groundwater education field positions. Approximately $240,000 / biennium.** There is no money in the current BWSR base. Note that this item was vetoed in 1994.

4. Fund 1 **EQB staff dedicated to groundwater program coordination** and related policy analysis. **Approximately $102,000 biennium.** There is no money in the current EQB base. Note that this item was vetoed in 1994.

5. **Well Sealing**

> 5A. Fund BWSR's **well sealing cost share grants** to counties at a level of **$500,000 / biennium.** Make this money available in the second year of this biennium only since federal money is very likely available in 1996. There is no money in the current BWSR base for this well sealing activity.
>
> 5B. **Remove the $2,000 cap on well sealing projects** that are critical yet expensive. Give BWSR / MDH authority to review and approve requests above $2,000.

6. Direct **MDH to conduct a pilot project on pesticides in drinking water** during the next two years. **$250,000 one time cost.** The "$5.21 fund" which is part of the special revenue account can be used for this activity.

7. Fund the Minnesota Institute for Sustainable Agriculture **(MISA) at the University of Minnesota to work with the MDA to develop, package and disseminate information on sustainable agriculture.** Ex: Direct marketing. **$300,000 / biennium.** There is no money in UM base for this activity.

8. Build more **accountability / reporting** into all programs so that progress is adequately monitored.

8A. **PCA's biennial Water Quality Trends Report** should include analysis of ongoing monitoring data. The report should be a joint report between PCA and MDA. The EQB / WRC should be responsible for peer review of this document. Chapter 103A.43?

8B. **DNR's biennial report on water quantity trends** should be based on strong analysis rather than just data reporting. The EQB / WRC should be responsible for peer review of this document. Chapter 103A.43?

8C. PCA and MDA should monitor the effectiveness of best management practices through the use of a **field auditing** process similar to that used by DNR on forestry BMPs. The EQB / WRC should be responsible for peer review of this auditing activity. Chapter ?

II. FUNDING (millions)

ITEM	TOTAL	BASE	NEW
1. Monitoring(A)	1.4	.5	.9
2. Sensitivity Map(B)	2.5	.6	1.9
3. Joint Educ(C)	.24	-	.24
4. EQB Position(D)	.12	-	.12
5. Well Sealing(E)	.5	-	.5
6. MDH Pilot(F)	.25	-	.25
7. MISA Education(G)	.3	-	.30
8. Accountability	-	-	-
	5.31	1.1	4.21

Notes:
(A) ?
(B) ?
(C) ?
(D) ?
(E) ?
(F) $5.21 Fund / Special Revenue Account
(G) ?

Minnesota Board of Water & Soil Resources

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Fax (612) 297-5615

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(218) 755-4235
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New Ulm, MN 56073
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1400 E. Lyon Street
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Metro Region:
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December 22, 1994

To: Ron Harnack
Executive Director

From: Bruce Sandstrom
Metro Region Supervisor

RE: Consent Agenda Items for January 25, 1995 BWSR Meeting:
Forest Lake WMO Boundary Change
Cottage Grove Ravine Watershed District Name Change
Cottage Grove Ravine Watershed District Petition to Amend Manager Terms

Attached for your review and approval to be placed on the January BWSR meeting agenda are three items regarding watershed management organizations in the Metro Area. I have directed Barbara to be prepared to make a presentation at the Board meeting if you or the Board members feel that would be helpful. However, I strongly encourage you to place these items on the consent agenda, as they are relatively minor and simply require BWSR approval.

Each of these items are non-controversial in nature. All were noticed properly according to statute. The deadline for hearing requests for the FLWMO petition was November 30, 1994, and no requests were received. The deadline for hearing requests for both CGRWD issues is January 21, 1995, and we do not anticipate receiving any such requests. Prior to that date, I or Barbara will update you and the Board of any such requests. With this in mind, please schedule these items for Board approval by way of the consent agenda on January 25, 1995.

Should you need more information, please do not hesitate to let me or Barbara know.

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

In the Matter of the petition of the Forest Lake Watershed Management Organization to change the boundaries of the Forest Lake Watershed Management Organization and the Rice Creek Watershed District, pursuant to Minnesota Statutes Chapter 103B.215

ORDER APPROVING WATERSHED DISTRICT BOUNDARY CHANGE

Whereas, the Forest Lake Watershed Management Organization (FLWMO) submitted a boundary change petition to the Minnesota Board of Water and Soil Resources (Board) pursuant to M.S. Section 103B.215 and,

Whereas, the Board has determined the petition to be adequate petition and duly noticed the petition in the Forest Lake Times, with the Washington County auditor, the Chairman of the Town of Forest Lake, the President and Administrator of the Rice Creek Watershed District (RCWD), the Washington County Soil and Water Conservation District, and the President of the FLWMO,

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

FINDINGS OF FACT

1. The RCWD initiated a boundary change in the affected area in 1985, but did not finalize the change.

2. Based upon this initiative by the RCWD, the FLWMO included the affected area in its boundaries through its Joint Powers Agreement in 1987. This resulted in a small portion of the Town of Forest Lake (<160 acres) lying in the two taxing boundaries of RCWD and FLWMO.

3. Further hydrologic investigation of the watershed line indicates that 400 acres discharge into the Forest Lake Watershed, rather than the Rice Creek Watershed, and therefore should be transferred from the RCWD to the FLWMO, in addition to the 160 acre parcel referenced in Finding 2.

4. The FLWMO has received a resolution in support of the boundary change from the Town of Forest Lake and a letter of support from the RCWD which indicates that "at their May 25, 1994 meeting the RCWD Board unanimously approved a motion to 'not oppose' the boundary change proposed" by the FLWMO.

5. **Notice of Filing:** The Board sent its Notice of Boundary Change Petition on October 20, 1994. The notice described the general intent of the petition. The notice further stated that any person objecting to the proposed change could submit a written request for hearing, and that if no requests for hearing were received before November 30, 1994 (20 days after the last date of publication, November 10, 1994, in the Forest Lake Times), the Board would make a decision on the petition without conducting a public hearing.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law have been fulfilled. The Board has proper jurisdiction in the matter of approving the boundary change of the Rice Creek Watershed District pursuant to M.S. Section 103B.215.

2. The proposed change to the FLWMO and RCWD boundaries will adjust the legal boundaries of the subject watershed management organizations to more closely reflect natural watershed boundaries. The area lies in a part of the Forest Lake watershed that has experienced drainage problems. Further development could exacerbate the existing problems, and the change will allow the FLWMO to properly administer its policies and programs over proposed residential development in order to provide adequate protection to the water resources.

ORDER

1. That the Board hereby approves the proposed boundary change between the Forest Lake Watershed Management Organization and the Rice Creek Watershed District as described below:

   Commencing at the center of Section 16 T. 32 N., R. 21 W. in Forest Lake Township, which is the existing boundary between the Rice Creek Watershed District and the Forest Lake Watershed Management Organization;
   thence west along the north line of the SW 1/4 of said Section 16 to the west line of the E 1/2 of the SW1/4 of said Section 16;
   thence south along the west line of the E 1/2 of the SW1/4 of said Section 16 to the southwest corner thereof;
   thence continuing south along the west line of the E 1/2 of the NW1/4 of Section 21, T. 32 N., R. 21 W. in Forest Lake Township to the southwest corner thereof;
   thence east along the east-west quarter line of said Section 21 to the northeast corner of W 1/2 of the SE1/4 of said Section 21;
   thence south along the east line of the W 1/2 of the SE1/4 of said Section 21 to the southern boundary of said Section 21;
   thence east along the southern boundary of said Section 21 to the southeast corner of said Section 21 and there terminating. Said termination being the intersection of the existing boundaries of the Rice Creek Watershed District and the Forest Lake Watershed Management Organization.

2. That the Board staff are directed to submit a copy of the description of the ordered boundary changes to the Minnesota Secretary of State within 30 days of approval.

Dated at Saint Paul, Minnesota, this 25th day of January, 1995.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

_____

BY: D. James Nielsen
Chair

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

In the Matter of the resolution of the Cottage Grove Ravine Watershed District to change the name of the organization pursuant to Minnesota Statutes Chapter 103D.105, Subdivision 2	**ORDER APPROVING REQUEST FOR ORGANIZATION NAME CHANGE**

Whereas, the Cottage Grove Ravine Watershed District (District) submitted a resolution to the Board of Water and Soil Resources (Board) on October 20, 1994 that requests a name change for the District to the **South Washington Watershed District** pursuant to M.S. Chapter 103D.105, Subdivision 2 and,

Whereas, the Board has determined that the resolution is reasonable and duly noticed the request in the Woodbury Bulletin and with the auditor of Washington County and with the chief executive officers of each city affected.

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

FINDINGS OF FACT

1. The Cottage Grove Ravine Watershed District covers portions of the Cities of Afton, Lake Elmo, Oakdale, Woodbury and Cottage Grove, therefore, the current name results in confusion among members of the public about the area of coverage by the District.

2. **Notice of Filing:** The Board sent its Notice of Filing of Resolution for Name Change on December 14, 1994. The notice described the purpose of the resolution. The notice further stated that any person objecting to the proposed change could submit a written request for hearing, and that if no requests for hearing were received before January 21, 1995 (30 days after the last date of publication, December 21, 1994, in the Woodbury Bulletin), the Board would make a decision on the petition without conducting a public hearing.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law have been fulfilled. The Board has proper jurisdiction in the matter of approving the name change of the Cottage Grove Ravine Watershed District.

2. The change of the name of the Cottage Grove Ravine Watershed District to the **South Washington Watershed District** will eliminate confusion and best reflect the coverage of the District. The proposed name will not likely be confused with other existing watershed districts.

ORDER

1. That the Board hereby approves the proposed name change of the Cottage Grove Ravine Watershed District to the **South Washington Watershed District**.

2. That the Board staff are directed to submit a copy of the ordered change to the Minnesota Secretary of State within 30 days of approval.

Dated at Saint Paul, Minnesota, this 25th day of January, 1995.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

_____

BY: D. James Nielson
Chair

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

In the Matter of the petition of the Cottage Grove Ravine Watershed District to amend the terms of managers pursuant to Minnesota Statutes Chapter 103D.105, Subdivision 2	**ORDER APPROVING AMENDMENT TO TERMS OF MANAGERS**

Whereas, the Board of Water and Soil Resources received from the Cottage Grove Ravine Watershed District (District) a petition on November 29, 1994 that requests an amendment to the terms of office of managers, pursuant to M.S. Chapter 103D.105, Subdivision 2 and,

Whereas, the Board has determined that the petition is reasonable and duly noticed the request in the Woodbury Bulletin and with the auditor of Washington County and with the chief executive officers of each city affected.

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

FINDINGS OF FACT

1. The Cottage Grove Ravine Watershed District conducts its budget hearing in August/September of each year, and the current terms of watershed district managers commence August 1 of each year.

2. It is beneficial to have the managers who propose and adopt the budget serve the time period that the budget is in effect.

3. **Notice of Filing:** The Board sent its Notice of Filing of Petition to Amend Terms of Managers on December 14, 1994. The notice described the purpose of the petition. The notice further stated that any person objecting to the proposed change could submit a written request for hearing, and that if no requests for hearing were received before January 21, 1995 (30 days after the last date of publication, December 21, 1994, in the Woodbury Bulletin), the Board would make a decision on the petition without conducting a public hearing.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law have been fulfilled. The Board has proper jurisdiction in the matter of approving the amendment to the terms of managers for the Cottage Grove Ravine Watershed District.

2. Amending the manager terms to begin in May, as opposed to August, will allow the managers that take part in the budget process to serve the District during a time that corresponds to the budget they have adopted.

ORDER

1. That the Board hereby approves the proposed amendment to the terms of managers for the Cottage Grove Ravine Watershed District to commence May 1, as opposed to August 1, of each year.

2. That the Board staff are directed to submit a copy of the ordered change to the Minnesota Secretary of State within 30 days of approval.

Dated at Saint Paul, Minnesota, this 25th day of January, 1995.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

_____

BY: D. James Nielson
Chair

Proposal for (3rd) Well-Sealing Cost-Share Grant Program - $500,000
January 6, 1995

Funding

- $ 500,000 grant from Federal CDC to MDH
- interagency transfer to BWSR after allocation decisions made
- grants to counties to share with landowners the cost of sealing high priority abandoned wells
- currently working on interagency agreement with MDH

Procedure

- basically use existing program mechanism. However, since this is Federal $, have more flexibility than had with state program
- "One shot" application for & allocation of funds
- Statewide - no longer just flood disaster counties
- plan on sending out application materials late January '95
- Will accept 1994 "challenge grant" well-sealing applications, or counties may choose to revise
- 60-day application period
- work on grant agreement in Feb-March '95
- plan on applications due late March '95
- review by interagency advisory committee
- allocation to counties in April
- state will support 50-75% of well sealing costs, depending on local program. Plan on keeping $2000/75% ceiling unless specially approved by BWSR and MDH.

- anticipate sealing approximately 1500 priority wells

Grant Period and Reporting

- Well-sealing work should be finished by June 30, 1996. (OK to have some funds encumbered & not yet spent at this point, but need work done by Sept 30, 1996)

- State will submit progress reports to CDC. Final progress report will include # of wells sealed in each county and selected case studies describing the local projects
- Counties will be required to report quarterly to BWSR on their progress.

- Final financial report to CDC by Sept 30, 1996

Criteria for evaluating proposals:

- Strength of proposal
- Capability of county to administer program
- Acceptance and application of well-sealing priorities
- Inventory efforts: Priority to counties that have specific high-priority wells identified for sealing
- relation to wellhead protection efforts

- **Well prioritization scheme will take into account:**
- well construction, depth, condition
- importance of aquifer as water supply source
- proximity to contamination, current contamination
- contamination susceptibility
- risk of flooding
- availability of other sources of water
- anticipated changes in land use

EXHIBIT V

RESOLUTION AUTHORIZING EXECUTION OF SUB-GRANT AGREEMENT

Be it resolved that the Board of Water and Soil Resources enter into a Sub-grant Agreement with the Division of Emergency Management in the Minnesota Department of Public Safety for the program entitled Public Assistance for FEMA 993-DR.

Ronald Harnack, Executive Director is hereby authorized to execute and sign such Sub-Grant Agreements and Amendments as are necessary to implement the project on behalf of the Board of Water and Soil Resources.

I certify that the above resolution was adopted by the Board of Water and Soil Resources on January 25, 1995.

SIGNED:	WITNESSETH:
_____	_____
(Signature)	(Signature)
_____	_____
(Title)	(Title)
_____	_____
(Date)	(Date)

WE NEED 4 SIGNED COPIES.

THANX.
WAYNE

JAN 95
Brd mtg

STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55155-4044

DNR INFORMATION
(612) 296-6157

September 9, 1994

Mr. Ron Harnack
Minnesota Board of Water & Soil Resources
Southbridge Office Building
155 South Wabasha, Suite 104
St. Paul, MN 55107

Dear Mr. Harnack:

The Forestry BMP Wetland Task Force is recommending that the BWSR consider that a baseline standard be used to develop BMPs for use in the WCA process which identifies the criteria necessary to provide wetland protection. The established baseline would serve as a standard for the LGU's and applicants to evaluate and develop technology based and site specific BMPs.

During the development of the Forestry wetland BMP document, the Committee felt it was necessary to establish a baseline standard for BMP development prior to the development of technology based or site specific BMPs. It's the Committee opinion that a baseline standard is also of value for industry, LGU's, and others involved with the Wetland Conservation Act. A baseline standard would:

- Establish a frame work for the development of technology based BMPs for the type of activity associated with the land use being undertaken (e.g. Agriculture, forestry, roads, utilities, etc.) and

- Allow those activities which go through a public review process (e.g. construction storm water permits; conditional use permits; WCA, COE, and MPCA requirements) to just develop site specific BMPs for their projects.

The baseline the Forestry Committee utilized as its standard was taken from 33 CFR, Section 323.4 and 7 CFR, Part 12. These sections of the federal regulations were modified to: remove the command and control nature, where appropriate; and were broadened to cover the activities listed in the WCA. Adopting this criteria will enable applicants to meet federal standards, if applicable, and provide for the voluntary protection identified in the WCA. A copy of the criteria used to develop the Forestry BMP's are attached.

It is the Committee's hope that the BWSR could adopt this baseline standard and expand if necessary and offer it to the LGU's as a tool to evaluate technology based and site specific BMPs as they are developed. The BWSR's Jim Lemmerman, as a Task Force member, is aware and supportive of this concept.

Within the next two weeks I will contact you to discuss this matter further. Three or four of the Task Force members are interested in meeting with you to discuss possible implementation of this concept. Within the next two weeks I will contact you to discuss how we should proceed with this matter.

Sincerely,

Mike

Michael J. Phillips
Environmental Protection Programs Manager

Attachment

BASELINE STANDARDS FOR DEVELOPMENT OF BEST MANAGEMENT PRACTICES TO PROVIDE WETLANDS PROTECTION

Land use activities in wetlands, which are operating under an exemption in the Wetland Conservation Act of 1991, should be guided by the following principles to ensure that the activities do not contribute to the loss or diminishment of wetland values and functions. Impacts to wetlands should be avoided if practical alternatives exist. When impacts cannot be avoided, landowners , managers and operators should implement all practical measures to minimize impacts. Best Management Practices designed to meet these baseline standards will provide the necessary protection while operating in or adjacent to wetland areas and reduce the risk of being in violation of the Wetland Conservation Act of 1991. BMPs developed through this process do not supercede federal regulations (33 CFR, Section 323.4 and 7 CFR, Part 12).

(1) The activities should minimize impacts to the hydrologic regime of wetlands.

(2) The activities should not take, or jeopardize the continued existence of state (MS, Chapter 84.0895; MN Rules, Chapter 6134) and federal (16 USC, Sections 1531-1544; 50 CFR, Section 17) threatened or endangered species, or adversely modify or destroy the critical habitat of such species;

(3) Activities in breeding and nesting areas for migratory waterfowl and spawning areas in wetlands should be avoided if practical alternatives exist;

(4) The activities should minimize impacts to species of special concern under MS, Chapter 84.0895; MN Rules, Chapter 6134 where their existance is known within the activity area;

(5) In designing, constructing, and maintaining roads, vegetative disturbance in wetlands should be kept to a minimum;

(6) Permanent roads, temporary access roads and trails in wetlands should be held to the minimum feasible number, width, and total length consistent with the management objectives, and local topographic and climatic conditions;

(7) All roads, temporary or permanent, should be located sufficiently far from streams or other water bodies (except for portions of such roads which must cross water bodies) and designed to minimize impacts to wetland functions and values;

(8) Discharges of dredged or fill material into wetlands to construct a road fill should be made in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within wetlands that lie outside the lateral boundaries of the fill itself;

(9) The design, construction, and maintenance of the road crossing should allow the migration or other movement of those species utilizing the wetland;

(10) Road fill should be bridged, culverted, or otherwise designed to prevent the restriction of everyday surface and subsurface water flows and expected flood water flows;

(11) Fill should be properly stabilized and maintained during and following construction to prevent erosion;

(12) Borrow material should be taken from upland sources whenever feasible;

(13) All temporary fills should be removed in their entirety and the area restored to its original elevation unless removal will have a greater impact on water quality then leaving in place; and

(14) Material placed or discharged in wetlands should consist of suitable material free from toxic pollutants in toxic amounts.

DRAFT

FORESTRY BEST MANAGEMENT PRACTICES FOR WETLANDS IN MINNESOTA

DRAFT

DESCRIPTION AND PURPOSE

Best management practices are necessary to avoid direct and indirect impacts from activities that destroy or diminish the quantity, quality and biological diversity of all wetlands. They provide forest managers, loggers and landowners with the tools to avoid or minimize potential adverse impacts to wetland functions and values. The principal outcome from applying these BMPs will be to protect normal water movement within a wetland. These BMPs are also proposed as a means of maintaining water quality. With BMPs as an integral part of forest management, continuous commercial timber production on or near Minnesota's wetlands is feasible without compromising environmental quality.

Three criteria are required to define a wetland: 1) hydrology or the degree of flooding or soil saturation, 2) presence of vegetation adapted to wet conditions, and 3) hydric soils. Many wetlands develop in defined depressions or basins. Others develop in very shallow depressions on old glacial lake bottoms covering large areas or in floodplains along rivers and streams. Wetlands are inundated by surface or ground water at a frequency and duration sufficient to support vegetation adapted to aquatic conditions. Water is also a dominant factor influencing soil development in these areas. The dominant wetland types in Minnesota are peatlands and mineral soil wetlands. BMPs should be applied to all types and sizes of wetlands.

Peatland occurs mainly in shallow glacial lake basins, glacial lake filled depressions, on flat uplands, and along sluggish streams. Soil is usually waterlogged with the water table at or near the soil surface. Most of the water movement occurs near the surface in the upper 12 inches. The elevation of the water table, relative to the wetland surface (soil surface), largely determines whether trees or herbaceous vegetation will dominate the wetland. Peatlands will remain open or become treeless when the water table is too shallow (less than 4 inches) for trees to persist.

Mineral wetlands contain fine-textured (clay, silt), slowly permeable soils to sandy soils overlaying impervious subsoils or hardpans. Seasonally flooded basins or flats are a form of mineral wetland common to upland depressions and bottomland hardwoods. Soils may be well-drained during much of the growing season but are covered with water or waterlogged during other periods.

PLANNING CONSIDERATIONS

All management operations in or adjacent to wetlands should be planned and conducted in a manner that protects site productivity, maintains or enhances ecologic functions and protects water quality. Planning approaches that anticipate problems and incorporate protective measures will be less costly than remedial activities to mitigate impacts.

DRAFT

In planning, the first priority should be to avoid operations in the wetland. Where avoidance is not practical, the landowner, manager or logger should minimize impacts by limiting the extent of wetland activities and using BMPs.

When operating on mineral wetlands, susceptibility to compaction and rutting is dependent on: 1) level of equipment trafficking, 2) soil texture, 3) soil water content at the time the silvicultural activity is conducted, and 4) season of activity. In general for mineral soil wetlands, compaction and rutting increases as soil texture becomes finer and soil water content increases. In unfrozen peatland, deep rutting can bring muck to the surface and block normal water flow. Soil information to assist the landowner, resource manager or logger in planning activities in wetlands ~~can be obtained from county soil surveys~~ may be available from local Soil and Water Conservation Districts or Soil Conservation Service offices. It is important to be aware that specific requirements may apply to operations in special management areas such as Scientific and Natural Areas. Use of a site map or onsite review indicating the location of wetlands on the proposed site can be an effective tool for communicating planning considerations.

On all wetland types, silvicultural operations will cause the least damage when the ground is frozen. In addition, seasonally flooded basins and flats may be operated if soil conditions are firm enough to support equipment.

GUIDES FOR OPERATING CONDITIONS

Disturbances such as ruts, soil compaction and fill can interrupt or redirect the flow of water through a wetland. They can also impact the depth of the water table or the extent of flooding or draining that occurs in all or a portion of a wetland. This can significantly alter the plant and animal community in that wetland. To avoid these disturbances, the following guidelines should be followed:

- ☐ Conduct silvicultural activities in wetlands during frozen or dry conditions. Evaluate the site based on weather conditions to ensure that there is adequate support for equipment to prevent or minimize rutting (see page __). Examples of weather conditions that could be cause for concern include: 1) heavy rain, 2) flooding, 3) significant snow before frost, and 4) three consecutive nights above freezing. A return to freezing conditions may allow operations to resume.

- ☐ Mark seeps and springs and maintain a filter strip ~~by keeping equipment at least 25 feet away~~.

- ☐ Plan for removal of equipment and cut material from the wetland area at the end of the winter season prior to thawing or leave it until next winter.

FOREST ROADS

General Requirements

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The quality and character of forest roads will vary depending on the design standard of the road; however, the impacts of placing fill materials and structures in wetlands are still present regardless of the road type. All wetland roads need to be built to minimize water quality impacts and alterations to normal water flow patterns.

The recommendations contained in this section, if incorporated in the overall road project design, should reduce potential wetland and water quality impacts. The landowner/operator is strongly advised to utilize the services of a forester and professional engineer to develop complete design and construction specifications. This is particularly important when constructing permanent all-season roads. Help in locating such assistance is available from the DNR/Division of Forestry, Soil and Water Conservation Districts, industrial foresters and consultants.

The following recommendations apply when planning the design of all roads across wetlands:

- ☐ Avoid crossing wetlands. If wetlands must be crossed, then minimize the total wetland road mileage required to meet the landowner's objectives.

- ☐ Determine the type and depth of wetland subsoils to ensure proper design and construction.

- ☐ Contact a county Soil and Water Conservation District office or DNR regional or area hydrologist to determine if the proposed road will cross a water or wetland designated on the Protected Waters Inventory maps. If so, a permit to work in public waters will be required from the Division of Waters (Minnesota Statutes 103G.245).

- ☐ Contact the local Soil and Water Conservation District office to ~~see~~ determine if the Local Government Unit requires a certificate of exemption for forest roads and silvicultural practices which are exempt activities under the Wetland Conservation Act of 1991.

- ☐ Minimize width of roads consistent with maintaining safety and road design considerations. Provide turnouts, as appropriate, placed at intervals to accommodate two-way traffic.

- ☐ Construct all road embankment fills with clean fill or other suitable native materials. The road base is built wider and deeper than for upland roads to spread out the road loading and minimize failure.

- ☐ Provide adequate cross drainage ~~through the roadbed~~ for subsurface as well as surface water flow in order to minimize disruption of normal flow patterns. This may be accomplished by: 1) using construction methods that allow free water flow throughout the entire roadbed, or 2) providing crossdrain structures such as culverts. Culverts will be placed at each end of each wetland crossing and at intermediate low points. Space culverts at maximum 300-foot intervals to ensure adequate cross-drainage through the roadbed (Figure 1).

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- ☐ Construct ditches in wetland crossings, where necessary, to intercept and carry surface and subsurface (top 12 inches) waters to, through, and away from the culverts. Situations where ditches are necessary include providing cross-drainage for defined surface channels or other low spots where surface water is moving or concentrating. Ditches can be oriented approximately perpendicular to the roadway to facilitate flow into and out of culverts, or parallel to the roadway to intercept dispersed flow and channel it to the culverts. For ditches constructed parallel to the road:

  * separation distance between the toe of the fill slope and the ditch is an important consideration. Recommended separation distances vary depending on type of construction as discussed later in this section.

  * ditches should not create additional outlets that will result in drainage of the wetland.

  * unditched breaks should be left midway between culverts.

- ☐ Design upland road approaches to wetlands so that surface runoff carrying potential sediment is diverted before entering the wetland. Refer to the roads section of the forestry BMPs (pages 28-39) for recommended sediment and erosion control structures.

- ☐ Employ sediment control techniques (e.g. silt curtains) when placing fill during construction to prevent movement to open water.

FIGURE 1

Constructing Roads in Wetlands

1. *Types of Roads*

a. *Permanent*

All-season roads are designed for use all year long though there may be some restriction on vehicle weight at times during spring breakup or wet periods. There is a great range in design standards and road surfacing in this type of road, depending on the traffic load anticipated.

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Seasonal roads are designed for long term periodic use such as during dry and frozen periods. These roads are built to lower engineering standards and have minimal material surfacing.

b. *Temporary*

Temporary roads are generally minimum standard roads designed for short-term use during a specific project such as a timber harvest. These roads on mineral wetlands, including seasonally flooded basins or flats, should only be used when dry or frozen to prevent or minimize rutting and compaction. These roads on peatlands should be used under frozen conditions. Appropriate temporary structures should be installed.

- ☐ Anchor temporary structures to prevent movement during high water flows.
- ☐ Remove temporary fills and structures to the extent practical when use is complete.

2. *Types of Construction*

Knowledge of water table position, zone of water flow, type of wetland soils, and the strength of wetland soils provides the basis for road construction techniques that maintain the flow of water through the road corridor and ensures the structural integrity of the road embankment. The concept is to provide a simple road structure of adequate strength to support heavy vehicle traffic while preventing subsurface soil displacement, and to provide either free-flowing pore space or drainage structures to pass water at its normal level through the road corridor. Culverts and/or ditches may be necessary with any road construction technique.

Conventional road construction methods are typically used to cross shallow peat (less than 4 feet deep) and mineral soil wetlands. Shallow peat or weak mineral soils can be excavated and backfilled with clean granular soils, or they can be filled over with clean granular fill and allowed to compress and displace down and to the side. Additional fill is added to keep the road bed at the desired grade. Culverts and ditches are installed to intercept surface and subsurface water flow in the top 12 inches of soil and transport it through and away from the roadbed.

Other road construction techniques can be utilized to cross wetlands having peat soils greater than 4 feet deep. In all cases the construction objective is to provide a stable travel surface while providing free flow of water through the road bed. In recent years geotextile fabrics have been used. They prevent road fill materials from mixing with the peat. Peat and other fines will clog large pore spaces provided by porous road materials specially placed in the lower portion of the road. The road bed can then be placed across the peat soils without the need for expensive material excavation or excessive amounts of backfill. ~~This technique is typically used in peat beds greater than 4 to 5 feet in depth.~~ Road beds that incorporate porous materials, including rock and log corduroy, allow a more natural flow of water throughout the wetland.

Road beds ~~utilizing~~ which utilize geotextile fabrics should be prepared to protect the woody root mat by flush cutting trees and brush and leaving non-merchantable material in place. The first geotextile fabric should be laid loosely over the cut material and then proceed with one of the

following wetland road construction techniques:

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Corduroy: Place trees parallel to each other, side by side and perpendicular to the roadbed direction. Cover, if needed, with at least 12 inches of road fill. If covered, provide for cross drainage by use of geotextiles or by installation of culverts at recommended intervals (see page __).

French Drains: Twelve inches of rock four inches or less in diameter is then placed over the geotextile, followed by another layer of geotextile. Clean road fill or gravel is finally placed on top (18" typically). The rock layer will settle into the top 12 inches of the wetland and provide the pore space for water passage through the roadbed (Figure 2).

FIGURE 2

Lightweight Road Fills: Lighter weight materials are incorporated into the core of the road embankment fill to lessen the total weight of the road embankment on the wetland surface. Lighter weight materials include chunkwood, wood chips, and sawmill residues among other materials. Materials with known potential to leach toxic substances (e.g. construction debris, treated wood, tires, asphalt or other petroleum ladened materials) are not suitable for use. Place the lighter weight materials over the fabric to form the core of the road embankment fill followed by another layer of geotextile fabric over the lightweight materials. Finally cover the core with at least 18 inches of granular sand or gravel road fill. Culverts and ditches, if necessary, are used to pass surface and subsurface waters through the road embankment as described previously (Figure 3).

FIGURE 3

Guide for crossing wetlands using conventional construction methods DRAFT

Wetland crossings with organic soils less than 4 feet deep may be constructed using conventional road construction methods. Some wetlands with deeper peat that is too weak to support a roadbed require using this construction method also. One method of construction consists of placing fill material directly onto the peat or organic subgrade and allowing the weight of the material to displace, or push aside, the weaker peat/organic soils. This displacement will continue until an equilibrium is reached between the strength of the subsoils to resist loads and the combined loads of the road fill and traffic. Another traditionally used method is the conventional excavation of the peat subsoils and replacement with granular backfill material.

- ☐ Install culverts that are a minimum of 24 inches in diameter buried halfway below the soil surface. Their upper half will handle surface storm flows and the lower half will handle everyday subsurface flows. Failure to bury the lower half of the culvert will cause subsurface water to backup and kill trees on the "upstream" side of the road.

- ☐ Place culverts at the low points of the wetland to pass surface water flows through the road embankments. If ditches parallel to the roadway are needed, they should be constructed immediately adjacent to the toe of the fill slope.

Guides for crossing wetlands utilizing the inherent strength of peat layers

Caution is needed when constructing permanent roads across wetlands with peat subsoils because of the great variability of strengths of the underlying peat layers. Roads constructed across the top of the peat surface, rely on the inherent shear strengths of the peat to resist slip failure and resultant road failure. The landowner or land manager is strongly advised to consult the services of a registered civil engineer to accurately determine shear strengths. The determination of these shear strengths is critical in designing a sound, safe and economical road crossing. It is essential that special construction techniques be employed when building roads across deep peat wetlands to avoid road failure.

Failure can include gradual sinking of the road into the wetland or the sudden loss of the road into the wetland. When this occurs the peat ~~is displaced excessively and the~~ water flow through the ~~swamp~~ wetland is greatly disturbed~~,~~ and can result~~ing~~ in large areas of flooding. ~~Failure can also result in loss of the road investment, loss of vehicles and create a safety hazard for people using the road.~~ Techniques to prevent or minimize impacts to deep peat wetlands include:

- ☐ Construct road embankments across wetlands with deep peat subsoils when the peat is frozen to avoid rutting and other damage of the topmost root mat layer which normally contains considerable shear strength. Such damage would greatly reduce the strength of the upper peat layers and reduce the ability of the wetland subsoils to hold up the weight of the roadbed and vehicle loads.

- ☐ Install culverts that are a minimum of 24 inches in diameter buried halfway below the soil surface. Their upper half will handle surface storm flows and the lower half will handle everyday subsurface flows. Failure to bury the lower half of the culvert will cause

subsurface water to backup and kill trees on the "upstream" side of the road.

- ☐ Maintain a separation between the toe of the embankment fill slope and the ditch, when constructing ditches parallel to the roadway. The separation distance should be at least three times the depth of the peat. Maintaining this separation will prevent disturbance of the inherent strength of the top layer of peat containing root mat. These ditches should be constructed using flotation devices (e.g. timber mats) or during frozen conditions to prevent damage to the wetland surface or construction equipment.

Guides for crossing mineral soil wetlands

Wetlands with mineral soils include those wetlands having fine-textured (clay, silt), slowly permeable soils to sandy soils overlaying impervious subsoils or hardpans. Road building across these wetland types employs conventional road construction techniques for road fill and drainage structures. Ditches and culverts provide for drainage of surface water flows. Fill areas in flood plains should be designed to allow high flows to pass unimpeded. Refer to the BMP road section (pages 24-35) for recommended drainage structure and ditching construction techniques.

- ☐ Install culverts of sufficient size to handle hydrologic flows for the site and long term maintenance needs. Contact a local Soil and Water Conservation District Office, Minnesota DNR engineer, or local Department of Transportation office or local road authority for assistance. Consult an SCS roads engineer or other appropriate professional for sizing recommendations.

Creating and Utilizing Frozen Roads

Roads across wetlands are often designed to take advantage of frozen ground conditions. Follow permanent road BMPs if permanent structures or minimal fill are necessary. The recommendations below should be followed when designing these roads across all wetland types.

- ☐ Plan the layout to maximize operating efficiency and minimize site disturbance. Select the shortest routes practical that minimize potential problems with drifting snow and the crossing of open water.

- ☐ Tramp and pack the wetland area wider than needed for the driving and working area~~.~~ if sufficient frost is not present. This will provide space for turnouts, snow removal and parking.

- ☐ Avoid crossing open water or active springs that will not freeze. If unavoidable, temporary crossings are preferred. These can be ice bridges, temporarily installed bridges or culverts, or timber mats. Soil fill should not be used to install these, and all structures that block water flow should be installed so they can be easily removed prior to breakup. Keep in mind that removal may be necessary at the end of each winter of operation, not just at the end of the timber contract, if the streams are navigable or require a DNR permit to cross.

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- ☐ Use planking, timber mats or other support alternatives to improve the ability to support heavy traffic where conditions are inadequate to stay within the guidelines above. These areas could be left as permanent sections on frozen roads if removal will cause more damage than leaving them in place.

- ☐ Anchor temporary structures to prevent movement during high water flows.

- ☐ Remove temporary fills and structures to the extent practical when use is complete.

- ☐ Avoid clearing practices that result in berms of soil or organic debris being built up on either side of the road clearing. Such berms can disrupt normal water flow.

- ☐ Provide adequate filter strips near open water~~.~~ (see page).

- ☐ Cease equipment operations on any portion of the road where rutting exceeds 6 inches in depth for continuous distances greater than 300 feet. Operations can resume when conditions are adequate to support equipment. This will minimize blockage of cross drainage and prevent down road channelization.

Maintenance

- ☐ Follow appropriate requirements in the water quality BMP guidebook, pages 36 to 39.

Closure

- ☐ Follow appropriate requirements in the water quality BMP guidebook, page 36.

~~RIPARIAN ZONE MANAGEMENT~~

~~Riparian zone management guidelines are appropriate to protect wetland functions and values. However, they have not been developed as of the printing of this document. They will be forthcoming in future revisions to this document.~~ As the GEIS Roundtable and other stakeholder discussions occur, riparian management and other related issues are likely to be addressed. As they are addressed and resolved, future revisions of the document will incorporate changes that impact water quality and wetland conservation. *[This statement will be incorporated into the introduction of the revised BMP guidebook].*

TIMBER HARVESTING

The following timber harvesting practices ~~should~~ are intended to provide long-term protection to water quality and wetland functions:

- ☐ Establish filter strips when harvesting in wetlands adjacent to open water wetlands and intermittent and perennial streams.

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- ☐ ~~Utilize a minimum number of centrally located high use skid trails. *(This recommendation is being debated)*~~

- ☐ Minimize rutting by conducting harvest activities in wetlands on firm or frozen ground that can support the equipment used. This may require packing a large portion of the harvest area with lightweight equipment to permit off trail operation of equipment, or adequate skid trails to allow skidder cables to reach all material from the skid trails.

- ☐ Move equipment to a stable portion or alter operating techniques to prevent repeated rutting deeper than 6 inches. Alternative operating techniques include:

  *Employ low ground pressure equipment.

  *Utilize slash on skid trails as a driving surface.

  *Minimize the amount of off trail equipment operation to reduce the area disturbed by heavy equipment.

- ☐ Cease operations if no part of the site or no alternative techniques are available to prevent repeated rutting deeper than 6 inches.

- ☐ Remove slash or woody vegetation that originates from outside the wetland or from upland areas contained in the wetland. Slash or woody vegetation that originates from outside the wetland is considered fill and must be removed.

- ☐ Keep logging residue out of all streams and open water wetlands except in cases where residue placement is specifically prescribed for fish or wildlife habitat.

- ☐ Avoid crossing small wetland inclusions, where practical.

Landings

Size landings to the minimum required for the acres to be harvested, the equipment to be used and the products to be cut. Where necessary to protect water quality and wetlands, the harvesting agreement should specify the number and location of landings.

- ☐ Locate landings on upland areas, whenever practical, when harvesting upland sites. When harvesting wetlands, an upland site may also be a preferred location for a landing.

- ☐ Avoid locating landings and yarding areas on open water wetlands.

Skid Trails

Locate, design, construct and maintain skid trails to minimize damage to the residual stand, minimize rutting, maintain surface and subsurface water flows in the wetland, and reduce erosion and sedimentation. Refer to the BMP recommendations contained in the Forest Roads section

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for specifications that are also applicable to skid trails.

- ☐ Plan the layout of skid trails to maximize operating efficiency and minimize site disturbance.

- ☐ Minimize the crossing of intermittent or perennial streams, sloughs or channels. Install bridges, culverts, snow or ice bridges, fords or other means, if necessary, to prevent repeated soil and streambank disturbance where no practical alternative exists to crossing a stream. This may require a permit from the DNR.

- ☐ Approach water crossing at or near a right angle to the stream direction and use measures to protect any stream bank structures.

- ☐ Prepare skid trails for the anticipated traffic needs to avoid unnecessary maintenance or relocation of trail. Techniques can include proper packing to ensure freezing or proper construction to provide a stable trail surface.

- ~~☐ Utilize a minimum number of centrally located high use skid trails. *(This recommendation is being debated)*~~

PRESCRIBED BURNING ON OR ADJACENT TO WETLANDS

- ☐ Obtain a DNR permit prior to burning as required under Minnesota Statutes, Chapter 88.17.

- ☐ Use fireline construction methods in wetlands that do not expose bare soil whenever practical. These may include wet lines, existing constructed or natural barriers, foam or retardants. Techniques that expose bare soil may only be used for silvicultural practices, and must be restored if wetland hydrologic functions are impacted.

- ☐ Provide adequate filter strips when constructing firelines that expose bare soil near wetlands.

- ☐ Employ suitable water diversion structures on firelines.

- ☐ Seed firelines when natural revegetation will not be adequate.

- ☐ ~~Use~~ Follow manufacturer recommendations when using foam or retardants in wetland areas ~~in accordance with manufacturer recommendations~~.

PESTICIDE USE

- ☐ Select pesticide(s), application method(s), equipment and formulation(s) which:

  *Minimize the potential for pesticide drift.

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*Minimize pesticide residue movement to surface water and groundwater.

- ☐ Apply pesticides in accordance ~~to~~ with the product label.
- ☐ Select only pesticides labeled for aquatic use if surface water is present at the time of application.
- ☐ Mix pesticides in upland areas, where practical.
- ☐ Rinse spray equipment and discharge rinse water only in wetland areas that are part of the wetland application site.
- ☐ Consult state and federal lists for endangered, threatened, or species of special concern which may exist in sites proposed for pesticide applications. Select appropriate pesticide(s), application method(s), equipment and formulation(s) when applying pesticides to those areas to protect above listed species. Refer to Appendix ____ for assistance.
- ☐ Provide wetland BMP training to individuals making forest management recommendations or applying pesticides.
- ☐ Store pesticides with adequate safeguards to prevent accidental release.
- ☐ Avoid applying pesticides on small wetland inclusions in upland areas unless that application is part of the management objective. If unable to avoid pesticide use in these areas, select only pesticides labeled for aquatic use if surface water is present at the time of application.

9/13/94

Working Together:

A Plan to Restore the Minnesota River

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Minnesota River Citizens' Advisory Committee's
Final Report to the Minnesota Pollution Control Agency

WORKING TOGETHER:

A PLAN TO RESTORE THE MINNESOTA RIVER

The Minnesota River Citizens' Advisory Committee's Final Report to the Minnesota Pollution Control Agency

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

DECEMBER 1994

"The grand circle of movement of water from ocean to atmosphere to continent and back to ocean is the essential mechanism that allows organisms — including humans — to emerge, to develop, and to live on Earth."

— Luna Leopold

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December 1994

The Minnesota River Citizens' Advisory Committee was formed to assist the Minnesota Pollution Control Agency and other collaborators in developing viable options for improving water quality in the Minnesota River. After many months of discussion and deliberation, we have developed a series of recommendations that we believe will move us closer to achieving the goal of a fishable and swimmable river by the year 2002.

In this document, we present some background information and some recommendations. The document does not provide the level of detail that agencies may need to guide internal decision-making. What it does include, however, is a set of recommendations that will provide the framework for continued discussions among those who care about the future of this great river.

We invite you to consider the steps we have outlined herein. We urge you to help define a sensible path for improving land and water within the Minnesota River basin.

The Minnesota River Citizens' Advisory Committee

WORKING TOGETHER: A PLAN TO RESTORE THE MINNESOTA RIVER

EXECUTIVE SUMMARY

In September 1992, Governor Arne Carlson issued a challenge: Make the Minnesota River swimmable and fishable within 10 years. This is an ambitious goal. It will require all Minnesotans to make a major financial investment and to make some fundamental changes in the ways we manage land and water.

The Minnesota River Citizens' Advisory Committee here presents a plan to meet Governor Carlson's challenge. The Committee, 30 members strong, represents the geographical and cultural diversity of the Minnesota River basin. There were members from Big Stone Lake to the mouth of the river and everywhere in between. There were farmers, county commissioners, conservationists, business people, and representatives from several state and local agencies. They met more than 30 times over a two-and-a-half year period, hearing presentations from experts in a wide variety of disciplines and discussing at length the river's problems and potential solutions. The recommendations outlined in this executive summary and detailed in the body of the report chart the path that the Committee believes must be taken to restore the Minnesota River.

Recommendations

Restore floodplains and riparian areas

It is time to restore the Minnesota River floodplain to its natural purpose. The Reinvest in Minnesota (RIM) program, in concert with local and federal initiatives, should acquire all of the Minnesota River floodplain between Jordan and Big Stone Lake — roughly 200,000 acres in all. Procurement should be made with willing landowners through permanent easements and selective fee-title acquisitions.

Riparian areas — the vegetative buffers along river banks — should be reestablished along all of the Minnesota River's major tributaries. Special attention should be given to connecting riparian areas to non-riparian natural areas so as to create corridors for wildlife.

Restore wetlands

In the Minnesota River basin, more than 90% of the original wetlands have been drained or filled. We must restore some of those wetlands. We should begin by purchasing perpetual easements on lands that will be inexpensive to restore, that offer the biggest "return" in the form of pollution reduction, water retention and habitat restoration, and that landowners want to restore. The RIM program and the U.S. Fish and Wildlife Service wetland restoration programs should be funded at sufficient levels to meet the demand from all landowners who want to participate.

Manage drainage ditches and storm sewers as tributaries

We must acknowledge that these drainage systems are in fact tributaries of the Minnesota River. We must recognize that the amount and quality of water they convey has a major impact on the physical, chemical, and biological characteristics of the Minnesota River and its tributaries. If we are to achieve a swimmable and fishable river, we must revise the state drainage code to weigh the environmental

costs against the economic benefits of ditch projects, and we must require treatment of all urban storm water before it is discharged into natural bodies of water.

Improve land management practices

The cleanup of the Minnesota River can only be accomplished when we recognize that the quality of the water is determined by what we do on the land. Widespread adoption of responsible land-use practices on the part of homeowners, farmers, developers, businesses, and government agencies will significantly reduce polluted runoff to the Minnesota River. We should provide more financial incentives for whole-farm resource planning, and, in cases where voluntary compliance is not working, we must establish certain mandatory land-use practices.

Monitor water quality throughout the Minnesota River basin

It is essential for us to precisely measure the impact that our efforts are having. We need to know how dirty the river is now, how much cleaner it becomes as we implement our restoration plans, and when we have achieved a swimmable, fishable river. In order to do that, we will need to establish a permanent water-quality monitoring network throughout the river basin. The Minnesota Pollution Control Agency should establish state-of-the-art monitoring stations at the mouths of the 12 major tributaries of the river, and local organizations and units of government should install a network of monitoring stations in their watersheds. All of the data gathered should be housed in an academic institution and made readily available to the public.

Establish a "Minnesota River Commission" to oversee the cleanup effort

A new institutional structure is needed to ensure government accountability and citizen participation in meeting Minnesota River cleanup goals. The Citizens' Advisory Committee proposes the creation of the Minnesota River Commission. Composed of private citizens as well as representatives of local organizations, state agencies, and the Dakota communities in the river basin, the functions of the commission will be to establish specific goals for the cleanup effort, provide broad oversight of major agency activities, evaluate the effectiveness of expenditures, and holding an annual conference on the state of the river.

Establish local joint powers agreements

The major goals for the river basin will be developed by the Minnesota River Commission, based on the work of the Citizens' Advisory Committee and the Minnesota River Assessment Project. The strategies used to accomplish these goals, however, should be developed and managed at the local level. The counties and other units of government within each of the 12 major watersheds in the Minnesota River basin should establish joint powers agreements which allow them to collaborate and share responsibilities for improving the water quality in their particular watershed.

The Minnesota Pollution Control Agency and the Metropolitan Council are now in the process of developing "pollution load allocations" for each of these watersheds. It is imperative that this work be completed as soon as possible. Pollution load allocations specify the amounts of various pollutants that

can safely be discharged from a particular watershed. The information will be used by each of the joint powers organizations to develop their cleanup strategies.

Improve technical assistance to local governments

Technical expertise is a major limitation for local organizations trying to address nonpoint source pollution in the Minnesota River basin. The lack of technical capabilities at the local level manifests itself in an inability to satisfactorily define local problems, set realistic goals, and carry out successful implementation programs. State government, through its agencies and university system, has an obligation to guide local governments in building the expertise that is needed to successfully implement water cleanup projects. Guidance is needed in a number of areas, such as designing surface water monitoring networks, establishing water quality goals, training in the use of Geographical Information Systems, creating design standards for pollution abatement measures, and interpreting research findings.

Engage the general public

Citizens throughout the basin need to come to understand the costs of a polluted river, the benefits of a clean river, and the actions they can take to help make the river clean. Within each of the 12 major watersheds, citizens should be involved in developing shared visions of social, economic, and environmental health. Unlike some educational programs, the emphasis should not be on materials development but on encouraging citizen participation. Existing information exchange and peer support networks will be utilized and supplemented as necessary. Examples include chapters of the Sustainable Farming Association of Minnesota, Clean Up our River Environment, Land Stewardship Project, Friends of the Minnesota Valley, Coalition for a Clean Minnesota River, Citizens for Big Stone Lake, ridge till clubs, and other groups where farmers and urban residents are encouraged to share information on sustainable practices.

Enforce existing laws

Minnesota has many laws designed to protect water quality. Unfortunately, the laws are not always enforced. A strengthened and coordinated system of enforcing existing environmental laws is needed at both the state and local levels. To start, the newly formed Minnesota River Commission should convene a conference on enforcement to develop a thorough assessment of enforcement problems. Additional resources will be needed to train enforcement staff. We will need to hire more DNR conservation officers and other staff. We should appoint a Minnesota River ombudsperson who will act to ensure that violators of the law are prosecuted when a state or county government has failed to do so. And the Office of the Legislative Auditor should conduct periodic audits of state and local governments charged with enforcement activities.

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BACKGROUND

Minnesota River Basin

A HISTORICAL VIEW OF WATER QUALITY IN THE MINNESOTA RIVER -- PUTTING THE MINNESOTA RIVER ASSESSMENT PROJECT INTO PERSPECTIVE

The word "Minnesota" has no clear translation in the Dakota language. "Somewhat clouded" or "sky-tinted" water -- "not blue, but rather the color of a clouded sky," are now more accepted translations.

An appreciation for the Minnesota River in its natural state is important to framing a common vision of what the river could become in the future. Changes in the river have come gradually over 130 years. Constructing a picture of the river during presettlement days is more art than science, since readers of history may draw different conclusions from the same information. The historical record cannot substitute for highly technical, scientific data, but by exercising discretion in the use of historical records, it is possible to describe, with reasonable accuracy, the changes in the physical condition of the Minnesota River.

Early explorers of the Minnesota River Valley lacked precise tools for measuring and evaluating soil, water or biological systems. They did, however, compile a valuable record of careful observations and personal perspectives from their journeys through the Minnesota Valley during the early 1800s.

What can be said with reasonable certainty is that the river was a cleaner, more healthy system before Europeans settled in the valley. The explorers' journals described river water that was safe for drinking and human contact. The river system at that time supported healthy populations of fish and wildlife. Wild rice, which requires stable water levels and clear water to grow, was commonly found along the river above Mankato.

How much sediment was naturally carried by the Minnesota River is a matter of current debate. The word "Minnesota" has no clear translation in the Dakota language. "Somewhat clouded" or "sky-tinted water — not blue, but rather the color of a clouded sky" are now more accepted translations (1). This translation appears to complement the descriptions of the early explorers who noted that the river looked as if "whitish clay had been dissolved in it" and that it was "slightly troubled, a little whitish, without transparency in the water." (2)

The precise condition of the river during presettlement times will never be able to be proven; however, early studies of the river, conducted at the turn of the century, indicated that significant changes in water quality had already taken place.

Historical Studies on the Minnesota River Reveal Consistent Themes

Research conducted over the past 87 years reveals a consistent pattern of information about the quality of water in this river basin. Studies conducted as early as 1907 by the U.S. Geological Survey describe the Minnesota River as one which "carries a noticeable quantity of organic matter, as evinced by the nitrogen determinations. Nitrates are found in measurable quantity and nitrates and nitrites are present, especially during flood time" (3). In addition to these findings, this study found that the river contained excessive levels of bacteria and experienced high turbidity during runoff events.

As early as 1934, the Minnesota Health Department found that the river suffered from the effects of pollution coming from industrial, domestic and farm runoff.

In 1934, the Minnesota Health Department found that the river suffered from the effects of pollution coming from industrial, domestic and farm runoff. Their report found that although the river was "used for bathing at a great many places," it was unfit even then for human contact (4). At that time, habitat within the Minnesota River system was already considered "unfit for the development of fish" (5).

Throughout the 1960s and '70s, additional research efforts on the river revealed similar results. Much of the emphasis at that time was on getting point sources of pollution under control, specifically pollution coming from industries and municipalities. During those years, a number of wastewater treatment plants were built or upgraded to alleviate domestic sewage problems coming from cities along the river.

Significant achievements were made in addressing point sources of pollution during the 1970s, especially in the lower Minnesota River. As the very visible and obvious domestic sewage was eliminated from the river, another pollution source became the focus of attention. This type of pollution, called nonpoint source pollution, was the result of overland runoff. This kind of pollution results when rain or melting snow move over the land, carrying a variety of pollutants to rivers, lakes and streams.

Nearly all of the studies that have been conducted on the Minnesota River, describe the same general problems — frequent violations of instream water quality standards for bacteria and turbidity; occasional violations of standards for ammonia; and moderate-to-high levels of suspended solids, oxygen-demanding substances, nitrates and phosphorus (6).

A study done in 1985, which focused on the quality of water in the lower Minnesota River, found that its problems were in part caused by the movement of pollutants from the upstream portion of the river basin. The study's authors observed that "implementation of a constructive and sustained basin-wide program dealing with surface runoff related to

sources of nonpoint pollutants and soil erosion is critical to the ultimate achievement of water quality objectives." (7).

The Minnesota River Assessment Project

Nearly all of the studies that have been conducted on the Minnesota River describe the same general problems -- frequent violations of instream water quality standards for bacteria and turbidity; occasional violations of standards for ammonia; and moderate-to-high levels of suspended solids, oxygen-demanding substances, nitrates and phosphorus.

The Minnesota River Assessment Project (MRAP) involved gathering scientific data on the river over a four-year period, from 1988-1992. A number of other studies on the Minnesota River have been completed; however, none of these has painted a clear a picture of how the river ecosystem is being affected by human activities on the land. As analytical techniques have become more sophisticated, technicians are able to better understand the ways in which pollution enters the system and how it affects the water chemistry and biological systems in the river and its tributaries.

The Minnesota River Assessment Project Report has drawn considerable attention since it was released in early 1994. Since that time, a great deal of information about the river has been presented through the media, public forums and special meetings with citizens. Reactions to the report were varied. Some were skeptical of the results and disputed their accuracy. Others felt that the study merely corroborated what they already knew from living day-to-day on the river.

UNDERSTANDING THE MINNESOTA RIVER TODAY

Pollution in the Minnesota River and its tributaries has significantly diminished the value of these waters for recreation, fish and wildlife habitat and scenic beauty. The lower reaches of the Minnesota River, from Shakopee to its confluence with the Mississippi River, no longer provide water of sufficient quality to support recreational activities such as fishing and swimming. In many areas of the river basin, pollution has degraded water quality below what is needed to support healthy fish and invertebrate populations. In some tributaries of the river, water quality has been so degraded that very little aquatic life can survive.

Since the early part of the century, a variety of government policies related to development, agriculture and flood control have actually contributed to both water quality and quantity problems.

The condition of the Minnesota River is a reflection of the ways in which we are managing the land within its discharge area or watershed. It is important to acknowledge that the Minnesota River basin has generated wealth and prosperity as a result of these land management activities; however, the negative impacts of those activities are often not acknowledged. Data recently collected through the Minnesota River Assessment Project makes a compelling case that the Minnesota River is in trouble and that its problems are largely caused by the cumulative impact of individual activities on the land. These activities include knowing violations of the law as well as day-to-day actions that are assumed harmless. Members of society have held firmly to the belief that each individual has a right to engage in private actions on private land. Some activities detrimental to water quality have been restricted by a variety of laws and regulations; some detrimental activities have gone unchecked.

Public policies have also played a role in the river's decline. Since the early part of this century, a variety of government policies related to development, agriculture, and flood control have actually contributed to both water quality and quantity problems by providing incentives to drain wetlands, to farm in marginal areas, to remove important buffer zones along tributaries, and to build dams and levees along the river. There have been a variety of mixed messages given to landowners regarding what are the appropriate practices and technologies to apply on their land.

"A river is only local to those who do not think or have not learned to see."
-Andy Russell

The impacts of a degraded Minnesota River spill over into waters of another great river — the Mississippi. The Minnesota River is the largest single source of pollution to the Mississippi River. When the two rivers converge at Fort Snelling, water quality in the Mississippi is degraded significantly. As the state which serves as the headwaters for the Mississippi River, Minnesota has an obligation to deliver clean water to its downstream neighbors. The responsibility for maintaining clean water in

these rivers and for our downstream neighbors rests with each individual and each community within their watershed boundaries.

There are very real public costs that we will bear if we allow the Minnesota River to remain in its present state. These costs include the loss of plants and animals, fish for eating, increased drinking water treatment costs, increased public health risks, loss of topsoil for agricultural production, reduced visual appeal, dredging costs, and payments for flood damages. In addition, there is lost economic potential for communities when recreation and tourism industries cannot succeed due to poor water quality and limited aesthetic appeal of the river.

We "must look again at the conventional wisdom of using a river as a resource, not treating it as a living thing."
-Andy Russell

We are at a critical juncture in defining a future for the Minnesota River. We can no longer accept the river as it is now, with its limited uses, diminished economic potential, and the heavy cost associated with doing nothing to improve it.

Instead, we must find ways to improve the river in a way that will improve economic stability for those who live in the river basin. As we develop ideas regarding what can be accomplished, we must ensure that responsibility for change is shared fairly among those who live in the river basin. For example, a better balance is needed between harshly regulating point sources of pollution, such as wastewater treatment plants and industrial facilities, and doing little or nothing to address rural and urban runoff problems.

WHAT IS THE MINNESOTA RIVER CITIZENS' ADVISORY COMMITTEE?

In May 1992, the Minnesota Pollution Control Agency (MPCA) convened the Minnesota River Citizens' Advisory Committee. The committee was brought together to assist the MPCA in defining reasonable and effective ways in which to reach water quality goals that have been established for the lower Minnesota River.

"There is a new organization of citizen effort, a new system of environmental laws and programs, new interpretations of old customs, new cracks in the old order."
-Thomas Waters

The Citizens' Advisory Committee was a diverse group of 30 individuals. Members of this committee were nominated by individuals and organizations across the river basin. They represent various occupations, affiliations and geographical areas of the river basin (see Appendix A for a list of committee members).

How did the committee accomplished its task?

Early in its process, the committee accomplished several important things. First, the Citizens' Advisory Committee developed a mission statement and goals to serve as a framework for their process. The mission statement reads:

> The Citizens' Advisory Committee shall develop a set of recommendations for improving water quality, biodiversity and the natural beauty of the Minnesota River.

Goals included the following:

- encourage local units of government, other entities and individuals to play a major role in implementing solutions to Minnesota River problems
- encourage improved intergovernmental cooperation
- encourage equity between what will be expected of rural and metropolitan areas in solving problems
- significantly improve public involvement and awareness
- ensure viable farms, rural and urban communities in the river basin.

During the first year or more of its process, the committee heard testimony from a variety of environmental professionals who have been involved in studying the river. These presentations led to the identification of several issues that the committee was interested in learning about in greater detail.

The key issues we identified were: 1) the impact of land use on the quality and the quantity of water in the Minnesota River, and 2) how drainage specifically might be affecting the river. The committee has also heard from landowners, business people, academic experts, agency representatives, and other interested parties who wished to share their views on water quality in the Minnesota River.

Based on the information it had received so far, the Citizens Advisory Committee released a Progress Report in January 1994. Shortly thereafter, the committee held a series of open houses across the river basin. Descriptions of the Progress Report and the open houses appear below. The work of the Citizens' Advisory Committee culminated with the release of this report.

Comments on the Progress Report

The Citizens' Advisory Committee Progress Report was released to the public in January 1994. The public was asked to comment on the conclusions that the committee had drawn. The committee received approximately 30 written responses. The overwhelming majority of comments were supportive and positive. As one respondent put it,

> "I commend you on your efforts to this point. Now we need action, not just talk, meetings, etc. Your report is good but somewhat general. We need specific ideas to act on that will improve the quality of the river. We also need to educate the general public. This is where your report can do some good. Keep it up!"

Most respondents felt that the problems of the Minnesota River should be addressed in a serious, sustained way. Respondents urged the committee to advocate for a number of actions that they felt would help the river recover to a reasonable level of quality. Individuals urged action in the following areas:

- general public education and outreach
- improved fertilizer and manure management
- promotion of minimum and no-till cropping practices
- development of a permanent Minnesota River Advisory Committee
- organization and promotion of local level initiatives for the river
- provision of adequate funding to state cost-share programs and land retirement programs
- improved enforcement of existing regulations (feedlots, permitted facilities)
- promotion and funding for wetland restorations

- review and revision of the drainage code
- better control of storm water runoff in cities and towns
- enforcement of laws requiring installation and maintenance of septic systems

Public Participation at Minnesota River Open Houses

- Verbal comments at the open houses

In addition to receiving written comments on the Progress Report, members of the Citizens' Advisory Committee had an opportunity to talk directly to the public at four open houses held throughout the river basin during February and March of 1994. Approximately 330 people attended those meetings. Included in the open house displays were the Citizens' Advisory Committee's draft recommendations that the public could review.

Many participants voiced support for the project and were glad that something was finally being done to improve the river system. A number of people provided anecdotal evidence regarding the condition of the river during their lifetimes. Others acknowledged that the river was polluted, but that no one group should be blamed for its current condition. Strong opinions were voiced in defense of the farming community, with a number of farmers feeling that agriculture is being unfairly blamed for the river's problems. Many farmers felt that they were not being given adequate credit for what has already been accomplished by conservation measures in the basin.

Finally, many of the participants raised concerns about how the feedlot enforcement program was being handled by the MPCA and the Minnesota Department of Natural Resources (DNR) and questioned the wisdom of the current approach.

- Written comments from the open houses

The written comments that resulted from these meetings indicated a diversity of perspectives regarding what should be done to improve water quality. In general, people seemed to support the draft recommendations that were presented by the committee. Many supported the same kinds of actions that those who commented on the Progress Report were advocating for — greater public education, more citizen involvement, more funding for land retirements, etc.

Some of the written comments reflected real concerns about the draft recommendations. Some individuals felt there should be a greater respect

for property rights and individual freedoms. Others were concerned that state agencies would make best management practices mandatory and use regulatory "hammers" to force change. Many participants felt that farmers and others needed education and positive incentives instead.

How is the Minnesota River Assessment Project related to the work of this committee?

Data and information that have been gathered through the Minnesota River Assessment Project have played a significant role in this planning process. The Minnesota River Assessment Project was a four-year, intensive study of the water quality in the Minnesota River basin. The study involved numerous federal, state and local government agencies and was completed in January 1994. This information proved valuable to focusing the work of the Citizens' Advisory Committee over the past two-and-a-half years. An overview of the MRAP Findings appears in Appendix D.

GENERAL FINDINGS OF THE CITIZENS' ADVISORY COMMITTEE ABOUT THE MINNESOTA RIVER BASIN

In order to fully understand the effects of human activity on the Minnesota River, we must take a broader view of the entire system, recognizing the interactions between land, water and people.

The Minnesota River is an impressive state resource stretching 335 miles from the western border of Minnesota to its confluence with the Mississippi at Fort Snelling. The Minnesota River drains a 16,770 square-mile area, which includes all or part of 37 counties in Minnesota. Several counties in Iowa and South Dakota are also part of this expansive watershed. The Minnesota River flows through some of the richest agricultural land in Minnesota. Approximately 92 percent of the land area within the river basin is agricultural (8).

A serious deterioration in the river's water quality has resulted from both agricultural practices and urban development within the river basin. As prairie soils have been exposed to the ravages of wind and water, erosion has occurred throughout the contributing watersheds. Wetlands that once purified water, were important homes for fish and wildlife, and stored flood waters throughout the basin were drained and farmed. Large-scale use of agricultural chemicals (fertilizers and pesticides) have contributed to the decline in water quality. Land that once captured and stored rain and snow melt was paved over in favor of cities, suburban development and roads.

As a result of these activities, soil, pesticides, animal wastes, fertilizers, paints, litter, oil, grease and other chemicals have been transported to the river through storm sewers, tiles, ditches and overland flow.

Inadequate sanitary sewer systems from towns and cities (often referred to as point sources) have also historically plagued this river. Most of these systems have been improved or replaced by effective treatment systems; however, some smaller communities and most rural households continue to discharge untreated or inadequately treated wastewater directly to surface waters throughout the basin (9).

The state of Minnesota is mandated by the Clean Water Act to ensure that water quality standards in the river are maintained. The United States Environmental Protection Agency has given the MPCA until 1996 to reduce nonpoint source pollution (contaminated runoff from the land) in the lower Minnesota River by 40 percent. Scientific models have shown that if nonpoint sources of pollution can be reduced by this amount, the lower reaches of the Minnesota (between Shakopee and the mouth of the river) will sustain aquatic life, even during summer, low-flow conditions (10).

What are the principal factors affecting the quality of the Minnesota River?

In order to fully understand the effects of human activity on the Minnesota River, we must take a broader view of the entire system, recognizing the interactions between land, water and people. All have some influence over the quality of the river environment and its surroundings. Because these three elements so strongly influence water quality in the Minnesota River, each will be discussed separately. We recognize that, in reality, they are inseparable.

Water

The Minnesota River is being degraded by high levels of nutrients (such as nitrogen and phosphorus), bacteria, and sediment. These pollutants cause the river to have low levels of dissolved oxygen, be unsafe for swimming, and have poor aesthetic qualities due to high turbidity. Sedimentation and habitat degradation are major negative forces affecting biological communities in the Minnesota River. Recreational opportunities, fishing, and other domestic and industrial uses of the river are also significantly diminished as a result of degraded water quality.

a. Water quality

Nutrients

Nutrients are being delivered to the Minnesota River largely from agricultural areas. The Minnesota River environment is currently being degraded by nutrient enrichment — or excessive levels of nutrients, both nitrogen and phosphorus. The sources of these pollutants include commercial fertilizers and animal wastes. In most cases, nutrients are noted for the positive influences they have on improving crop yields and helping plants to grow. In water environments, however, high levels of nutrients create an imbalance in water chemistry and in plant and animal life. When plants and algae die, the decomposition process removes oxygen from the water. Without proper levels of dissolved oxygen, the entire biological community in the river can be affected (11).

Suspended solids/sedimentation

The Minnesota River regularly carries heavy loads of sediment and organic matter. These suspended solids give the river its turbid or muddy appearance. As the water in the river rises, the amount of suspended

material in the water also rises. As the river level drops, the amount of material in suspension also falls. In the river, silts and clays represent a large proportion of the suspended material. Silts and clays are very fine particles which, once in suspension, do not settle out easily. Finer material has a greater impact because it is easily transported long distances in the river (12).

"Rivers form lifelines, housing fisheries of eclectic diversity."
-Tim Palmer

Reduced water clarity in the river significantly reduces the amount of sunlight that penetrates the water. Without proper light conditions, photosynthesis is reduced in rooted aquatic vegetation and microscopic algae. Aquatic plants and algae are critical to providing proper levels of oxygen, habitat, and food for aquatic insects and fish.

High levels of suspended solids are also harmful to fish species by making sight-feeding difficult and by smothering important fish nest sites and their eggs. In addition, toxic substances and phosphorus attach to sediment particles and are then carried to the reservoirs and wetlands along the river. Finally, suspended solids greatly affect our ability to use the water for activities such as swimming, boating, drinking, industrial processing and fishing.

Bacteria

The Minnesota River often carries high levels of bacteria. High bacteria counts occur under both low and high flow, suggesting that some bacterial inputs are constant, such as inadequate municipal treatment plants, septic systems, and directly discharging feedlots (13). A constant source of bacteria enters the river and is evident at both low flow and during runoff. These bacteria levels are often found wherever human and/or animal wastes are present. Infectious diseases, which are often associated with these bacteria, may also be present. Recreational activities, such as swimming or canoeing, that involve body contact with the water are no longer possible when bacteria levels are too high.

b. Biological diversity

The combined effects of human settlement in rural and urban areas within the Minnesota River basin have resulted in significant changes in the physical environment. The health of plant and animal life in the river is an indicator of the quality of the physical environment in which they live. Within the Minnesota River and its tributaries, many impacts to life forms in the river are a result of habitat alterations (such as channelization, diking, and drainage activities) and sedimentation in which they live.

The combined effects of human settlement in rural and urban areas within the Minnesota River basin have resulted in significant changes in the physical environment.

Smaller, headwater streams in the Minnesota River basin appear to be more seriously affected by habitat alteration than the larger streams and main stem of the river. This becomes an important issue when one considers that these headwater areas are often the spawning and nursery areas for a number of fish species. Impacts to fish communities in the river and tributaries due to chemicals in the river are difficult to evaluate in light of habitat degradation and due to the limited water chemistry monitoring that is available (14).

The desirable condition for aquatic organisms is for rivers to have a combination of pools, riffles, rock and rubble river beds, and woody debris for habitat (15). The large amounts of silts, clays, and sand on the bottom of the Minnesota River means that many of the rock and gravel habitats have been destroyed. This greatly reduces the amounts of habitat for invertebrates, algal communities, and fish. The tributaries of the Minnesota River generally have fewer problems with sediments settling on their river bottoms than the main channel of the river. The bottoms of the river's reservoirs, however, are covered with sand and heavier soil particles that settle out of water more easily (16).

Agriculture/Urbanization

Conversion of the natural landscape to agriculture and urban development has resulted in a serious degradation of water quality, biodiversity and the natural beauty of the Minnesota River Valley.

a. Drainage

The landscape of the Minnesota River Valley has changed significantly since settlers first planned towns and cities along the river. The journals of the early European explorers described a river and valley which were beautiful and inspiring. The river upstream of Mankato was described in many areas as exceedingly clear, with white sand bottoms in many places (17). In upland areas, prairie and wetlands extended as far as the eye could see.

As late as the mid-1800s, the landscape remained more or less unchanged. Surveyors' notes and maps generated during the 1850s showed that a significant portion of the river basin was dominated by wetlands and wet prairie. The landscape was peppered with small, isolated lakes and wetlands. Most of these small basins had no permanent surface water

outlet. In other words, they did not drain directly to the Minnesota River and its tributaries. These lakes and wetlands had small drainage areas. Most of the precipitation that fell within these small subwatersheds was retained within the watershed and either evaporated to the atmosphere or percolated through the soils to recharge shallow ground water aquifers (18).

Since the turn of the century, however, the landscape has been drastically altered. Wetland drainage became a standard practice. A vast and efficient network of drainage tiles and ditches changed the ways in which water moves through the river basin and the quality of that water. As a result of expanding drainage tile lines and ditches, large, previously isolated wetland basins were artificially connected to the Minnesota River.

Artificial drainage has created a vast network which can move water and pollutants great distances and at a much faster rate than would have occurred under natural conditions.

Artificial drainage has created a vast network that can move water and pollutants great distances and at a much faster rate than would have occurred under natural conditions. Rain water and snow melt moves quickly through this system, increasing the potential for bank erosion and flooding.

While the conversion of wet areas to agricultural fields has created rich, productive agricultural lands, there have been disadvantages as well. Along with water, some drainage systems carry sediments, nutrients, pesticides, and animal and human wastes to surface water. The delivery of these pollutants causes degradation of water quality as well as changes in the plant and animal life in the river and eradication of some species (19).

Downstream of areas where drainage projects have been completed, the following impacts can be identified:

- increased suspended materials in the water,
- increased flow velocity (how fast water moves through the system),
- greater extremes of flow (both how much and how often),
- reduced amount of habitat area (such as pools, riffles and raceways) due to shortened channels,
- less stable stream banks and greater potential for erosion,
- decreased instream and streamside cover,

- shifts in aquatic invertebrate (small, spineless animals) and fish populations,
- shifts in the kinds of species present,
- changes in habitat and food availability, and
- changes in spawning and nursery areas for fish.

Important wetland ecosystems have also been lost due to drainage activities. It has been estimated that 2-3 million acres of historic prairie wetlands have been eliminated in the Minnesota River basin due to drainage practices. Wetland destruction can result in a loss of flood storage capacity, nutrient entrapment and assimilation potential, reduced ground water recharge areas, and elimination of critical habitats for fish and wildlife (20).

b. Impacts of various land use activities

While drainage practices have significantly altered the way water moves through the river system, other land management practices have also drastically changed the landscape. Intensive cropping activities and development of feedlots have resulted in certain economic benefits; however, in many cases they have also resulted in negative impacts of water and wildlife. The use of most land for row crop and monoculture agriculture has reduced the diversity of plant and animal habitats in the basin (21). The number, size, and management of some feedlots in the river basin has created problems related to the collection, storage and disposal of animal manure.

The way we have settled and cultivated the land has resulted in the loss of a significant amount of habitat in and around the river and its tributaries.

c. Development patterns

In the metropolitan area and in small cities in the Minnesota River basin, development patterns have created another set of problems. With the thousands of acres of pavement and other impermeable surfaces in our cities and towns, rain water and melted snow move swiftly to the Minnesota River and are deposited untreated through storm sewers. A host of pollutants are carried by storm water, including dust and dirt, atmospheric fallout, animal waste, sediment from construction sites, plant matter, and chemicals from a variety of sources.

Pollution concentrations in receiving streams sometimes exceed recommended guidelines for good water quality. Fish and wildlife can also be seriously affected. In addition, physical alterations take place in the receiving stream due to increased volumes of runoff. This can lead to channel scour, devegetation of stream banks, flooding, habitat destruction, and debris deposition (22).

d. Loss of corridors and pathways for wildlife

The way we have settled and cultivated the land has resulted in the loss of a significant amount of habitat in and around the river and its tributaries. Specifically, we have lost or degraded many of the green corridors that are pathways and thoroughfares for the movement of many species of plants and wildlife. In addition, there remain very few of the large tracts of undisturbed land necessary for the successful reproduction and rearing of many wildlife species (23).

Riparian corridors are especially critical to the health of the river system. Riparian zones are the transition zones between rivers and upland areas. They form important corridors for the movement of living things within larger landscapes. In their natural state, they include a rich assortment of organisms and vegetation. Their trees and vegetation stabilize stream banks and shade the water, thereby regulating light and temperature conditions.

The importance of these areas is even greater than their total land mass would seem to suggest, since they serve such a wide variety of important functions (24). For example, riparian areas capture and retain surface water runoff that comes from upland areas, holding some of the nutrients and soil that might have otherwise reached rivers and streams.

"...The greatest influence in protection of our flowing waters is a citizenry newly aware of the value of this resource."
-Thomas Waters

People

Cultural factors involving the attitudes, behaviors, and perceptions of rural and urban landowners in the Minnesota River basin add to the complexity of addressing environmental problems facing the river.

The Minnesota River is currently more affected by the cumulative impacts of many small abuses than by extreme or flagrant acts of environmental abuse. The river's deterioration has occurred slowly and almost imperceptibly over many decades. The public has, for the most part, come

to accept its limited value. With this acceptance comes a belief that its polluted status is not a "big problem." As a result, there are very different degrees of perceived urgency regarding when a cleanup should begin and how it should proceed.

Minnesotans will have to develop a culture of cooperation and joint stewardship of natural resources, one that looks beyond individual benefit.

There is a perception among a portion of the agricultural community that the elimination of water pollution in the Minnesota River can only adversely affect the economic status of farmers. A companion perception is that there are no viable alternative methods of farming that will both eliminate pollution and be economically successful. These perceptions encourage an unwillingness to closely evaluate the costs and benefits of changing land use and agricultural practices.

In urban areas, many residents remain unaware or are not focused on water issues. For the majority of citizens, once water is "down the drain," it is no longer of concern to them. Even less awareness exists among homeowners regarding how they may be contributing to urban runoff problems in nearby rivers and streams. There is a common misperception that once water has traveled to a storm sewer, it is routed to a wastewater plant for treatment. This misperception leads to the dumping of many harmful wastes into our city storm sewers each year.

Ultimately, state and local politics will play a significant role in the health and quality of the Minnesota River. State and local politics can result in less-than-vigorous enforcement of state and local regulations related to land use practices and water quality. Areas where enforcement has traditionally been weak include feedlot management, drainage, construction runoff management, illegal dumping, home septic system maintenance, and protection of wetlands.

If the restoration of the river is to be successful, Minnesotans will have to develop a culture of cooperation and joint stewardship of natural resources, one that looks beyond individual bene`fit.

AN ACTION PLAN

FOR IMPROVING WATER QUALITY

IN THE MINNESOTA RIVER

"I encourage you to think big."

- Sondra Simonson

RESTORE FLOODPLAINS AND RIPARIAN AREAS

Rationale

A floodplain is an area of relatively flat land adjacent to a river. When there is more water than can be contained within a riverbed, the excess water goes onto the floodplain. When human activities take place in a floodplain, those activities are at risk of being flooded. The less human activity that takes place in a floodplain, the less damage is done by a flood.

Restoring the floodplain to its natural purpose will make a powerful statement about the state's commitment to cleaning up the river.

Even during times of normal water levels, floodplains perform a vital water-cleansing function. As water moves from the uplands toward a river after a rainfall or snow melt, floodplains retain some of the water and trap sediment, nutrients, bacteria, and other pollutants.

Riparian zones — the vegetative areas along the banks of a river usually make up a small percentage of land area in a river basin, but they perform three important functions disproportionate to their size. First, they assist in the overall floodplain's water-cleansing process. Second, they provide an unbroken green corridor for the movement of wildlife. Third, riparian areas make a river more beautiful.

In June 1994, the federal Interagency Floodplain Management Review Committee published *Sharing the Challenge: Floodplain Management into the 21st Century*. The abstract of the report states:

> "The federal government can lead by example; but state and local governments must manage their own floodplains. Individual citizens must adjust their actions to the risk they face and bear a greater share of the economic costs."

The floodplain of the Minnesota River is the most visible and identifiable portion of the river basin. Restoring the floodplain to its natural purpose will make a powerful statement about the state's commitment to cleaning up the river. Clearly visible green belts along the major tributaries will confirm Minnesota's intention to safeguard one of our major ecosystems.

Action Plan

1. Restore the Minnesota River floodplain

The Reinvest in Minnesota (RIM) program, in concert with local and federal initiatives, should acquire all of the Minnesota River floodplain between Jordan and Big Stone Lake — roughly 200,000 acres in all.

Procurement should be made with willing landowners through permanent easements and selective fee-title acquisitions.

In the case of permanent easement acquisitions, the administering agency should interpret easement provisions flexibly. Some agricultural activity may still be allowed on some of the lands acquired. Pasturing or haying, for example, may not interfere with some parcel's ability to filter floodwaters during storm events. In those cases, the state should not pay for both cropping rights and haying or grazing rights.

2. Establish riparian areas along the major tributaries

"A river ...can be tamed but it resents it. And then far-reaching and very destructive things happen, all the way from the trickles of its source clear down to its deltas and entrances at the edge of the ocean."
-Andy Russell

The RIM Reserve program has the authority to acquire easements in riparian areas along the major tributaries of the Minnesota River. Statewide, more than 5,000 acres of riparian land are currently enrolled in the Reserve. The program is well run and needs no major legislative changes. What is needed is support for the Board of Water and Soil Resources (BWSR) to substantially increase the amount of their resources for riparian corridor restoration, both through internal reallocation and external supplements.

No riparian corridor easements should be acquired where such action would not reduce erosion or maintain a continuous green belt. Special attention should be given to connecting riparian areas to non-riparian natural areas so as to create corridors for wildlife. The monies allocated to this program should be for acquisitions within an average 50-foot corridor on each side of a tributary.

Costs

The cost of permanent easement acquisition along the main stem of the Minnesota River is estimated to be $400–$700 per acre for cropping (but not full agricultural) rights. To acquire such rights, the state would face a one-time cost of $80-$140 million. For each particular parcel, the cost of permanent easement acquisition should be weighed against the costs and benefits of fee-title acquisition.

This expenditure may be reduced to the extent that other public and private organizations conduct their own acquisition and development programs. For example, the U.S. Fish and Wildlife Service has made a preliminary proposal to expand the Minnesota Valley National Wildlife Refuge along the river from Jordan to Le Sueur. The Citizens Advisory Committee supports this proposal.

Acquiring a complete riparian corridor on the major tributaries of the Minnesota River will cost about $42 million. This is based on an average width of 50 feet on each side of 5,000 miles of major tributaries (about 60,000 acres) at $700 per acre.

These floodplain and riparian acquisitions will lower the market value of the properties themselves. This will reduce the tax base of the property's various taxing jurisdictions and, as a result, would increase property tax payments of other properties in the jurisdictions. To reduce these tax shifts, the state should pay property taxes on the easements share of the property value. This would add another $6–10/acre/year or $1,560,000–$2,600,000 to the annual cost of the programs.

"A river is nature's own wilderness road."
-Tim Palmer

Acquiring the floodplain will reduce expenditures in other areas. Estimates of the cost of the 1993 flood in the Minnesota River basin were $233 million in property damage and $550–$800 million in crop damage. These costs would have been even higher had not the Minnesota Valley National Wildlife Refuge protected the metro-area floodplain from development. The costs would have been lower had restoration of the floodplain and riparian areas outside the metropolitan area occurred before the flood.

Translating all of the environmental benefits of floodplain restoration into economic terms is an inexact science. One can be confident in asserting, however, that water quality and scenic values will improve, which will result in an increase in recreational fishing and tourism throughout the basin.

Restoration of the Minnesota River floodplain and tributary riparian areas should be accomplished over a period of five years. The 1995 Legislature should allocate a special fund of $30 million to ensure that these programs get off to a good start.

RESTORE WETLANDS

Rationale

If our goal is to improve water quality in the Minnesota River, we must look beyond the old ways of thinking and understand water within a larger context. Rather than think of water as a liability — something we must get off the land and send downstream as quickly as possible — we must recognize that water is a precious natural resource and attempt to retain as much of it as we can. This is true in urban and rural areas alike.

"The Minnesota in its meandering way exerts subtle pressures of the sort that make it endearing, if not a famous river. One of the finest attributes is that it is not intimidating."
-Suzanne Winckler

Beyond the floodplain, the best way for us to manage water on the land is wetland restoration. While drainage has dramatically altered surface and subsurface hydrology throughout the Minnesota River basin, wetland restoration can compensate by allowing water to be retained on the land. As Minnesotans now recognize, wetlands perform many important functions, such as reducing peak flow during runoff events, recharging groundwater aquifers, slowing the movement of surface water, trapping sediment and nutrients, and providing habitats for fish and wildlife.

In the Minnesota River basin, more than 90 percent of the original wetlands have been drained or filled. We must restore some of those wetlands. The percentage of the land in a particular area to be restored will depend upon the land-use practices, soils, and drainage patterns of that area.

Action Plan

We should begin our wetland restoration effort by purchasing perpetual easements on lands that will be inexpensive to restore, that offer the biggest return in the form of pollution reduction, water retention and habitat restoration, and that landowners want to restore. The RIM program and the U.S. Fish and Wildlife Service wetland restoration programs should be funded at sufficient levels to meet the demand from all landowners who want to participate.

The Wetland Reserve Program is a sound alternative to draining existing wetlands and should be continued for an additional 10 years.

Costs

Initial expenditures for wetland restoration vary considerably, with an upper limit of about $1,000 per acre. As is the case with floodplain restoration, the costs are at least partially offset by the economic benefits of cleaner water and improved wildlife habitat.

MANAGE DRAINAGE DITCHES AND STORM SEWERS AS TRIBUTARIES

Rationale

The flow of water in the Minnesota River basin has been significantly altered over the past century due to extensive ditching and tiling. Formerly landlocked areas are now connected to tributaries of the Minnesota River, resulting in the downstream delivery of water, sediments, and nutrients that otherwise would not have reached the river. The story is similar in urban areas. Water that formerly soaked into the ground is now transported from roofs, roads, and parking lots to storm sewers that drain into the Minnesota River and its tributaries.

We must acknowledge that these drainage systems are in fact tributaries of the Minnesota River. We must recognize that the amount and quality of water they convey has a major impact on the physical, chemical, and biological characteristics of the Minnesota River and its tributaries. Improving the quality and reducing the quantity of water reaching the Minnesota River via drainage systems is an essential step in making the river fishable and swimmable.

Action Plan

1. Revise the state drainage code

We must acknowledge that drainage systems are in fact tributaries of the Minnesota River.

Since its inception, drainage law in Minnesota and across the country has assumed that all drainage is beneficial since it increases crop production and the tax base. Scant consideration has been given to the adverse impacts of drainage such as increased sedimentation rates, decreased water quality, wetland destruction, and the loss of native plants and animals. When drainage projects are considered, drainage laws should recognize these adverse impacts and weigh them in the public interest.

The Minnesota Drainage Code still encourages drainage, in many cases to the detriment of the environment. The law currently promotes activities that are in direct conflict with other state laws which aim to preserve and protect wetlands, reduce nonpoint source pollution, save endangered species of plants and animals, and protect groundwater supplies. The state drainage laws are outdated and in need of significant revision. Revised drainage laws need to do the following:

- Provide clear guidance regarding how to determine costs and benefits of drainage projects. The costs of mitigating for the negative impacts of a drainage project must be weighed against the projected benefits of

the project. Costs should be calculated before a petition for a project is circulated.

- Provide design standards that ditch projects must meet during construction and maintenance. To the greatest extent possible, water from ditches should not degrade the quality of the water in the receiving streams.
- Allow drainage projects (that is, tiling, new ditches, and repairs to existing ditches) only where benefiting landowners are willing to implement soil- and water-quality programs on their land.
- Provide for collaborative efforts between government and private groups in maintaining ditches.
- Encourage wetland restoration that is done in such a way that it does not have a negative impact on the drainage of upland agricultural crop land.

2. Require treatment of urban storm water

In many instances drainage waters from urban areas are discharged directly into lakes and rivers. This has a serious negative impact on water quality and aquatic life. All storm water from cities and towns should be treated before it is discharged into public waters. As part of this approach, all state agencies, especially the Minnesota Department of Transportation, should be required to include effective storm water management as an integral part of every construction project. The level of treatment should depend on the amount and kinds of pollution in the storm water, the increased flow of water caused by the discharge (which can cause serious streambank erosion), and the overall health of the receiving body of water.

The Metropolitan Council requires cities in the metropolitan area which seek sewer extensions to adopt and enforce a storm water management ordinance. The ordinances require contractors, developers, and others to adopt best management practices to control storm water runoff. This requirement should be enacted throughout the Minnesota River basin.

IMPROVE LAND MANAGEMENT PRACTICES

Rationale

The cleanup of the Minnesota River can only be accomplished when we recognize that the quality of the water is determined by what we do on the land. Widespread adoption of responsible land-use practices on the part of homeowners, farmers, developers, businesses, and government agencies will significantly reduce polluted runoff to the Minnesota River. Many important practices are not implemented on a voluntary basis, even though it is widely agreed that their adoption would significantly improve water quality.

The cleanup of the Minnesota River can only be accomplished when we recognize that the quality of the water is determined by what we do on the land.

Improved land management practices will depend on several factors:

- Education and technical assistance (these are included as separate recommendations in this report).
- Economic incentives, such as expanded cost-share programs and conservation tax credits or other forms of payments. These can partially compensate landowners for the costs of implementing environmentally benign land management practices.
- Mandatory adoption of certain practices. Clear legal authority is needed for state and local government agencies to require certain land-use practices on land which has been demonstrated through monitoring and research to be contributing unacceptable levels of pollution to the Minnesota River or its tributaries. In short, it is time to make people responsible for the public consequences of their private actions.

Action Plan

1. Increase financial assistance for whole-farm resource planning and best management practices implementation

In short, it is time to make people responsible for the public consequences of private actions.

More resources should be devoted to assisting in the development and implementation of land management practices that protect and improve water quality. This could include the following:

- Increased state funding for the cost share program administered by BWSR and the Soil and Water Conservation Districts. Increases should be targeted at those practices which are most effective over the long run for improving water quality.

- Increased state funding for integrated whole-farm resource planning and implementation. Many farmers may wish to make more radical changes in their operations than simply incorporating best management practices into their current operations. This could be done as a pilot program.

2. Enact a "bad actor" law

A "bad actor" law should be developed so that the MPCA or local government can require that environmentally sound practices be put into place at sites where there are unacceptable water quality impacts and where voluntary programs have not been effective in changing behavior or practices. This legal authority would encourage voluntary compliance and would be an important tool within a comprehensive enforcement package.

3. Establish mandatory land-use practices where necessary

Mandatory land-use practices should be imposed carefully and strategically when voluntary actions or economic incentives have not been effective.

There is a need to establish mandatory land-use practices in areas (both urban and rural) where it has been shown that efforts to address the problem on a voluntary basis have not been successful. In these cases, there may not be any bad actors, but the nature of the watershed, soil, and land-use patterns mean that special strategies are necessary. Without the capacity to affect all pollution sources that diminish water quality within a watershed, technical assistance and other efforts may be only partially effective.

Mandatory land-use practices should be imposed carefully and strategically when voluntary actions or economic incentives have not been effective. State and local governments will be responsible for setting water quality objectives within a watershed and must make it clear to landowners what will be expected of them. At the same time, landowners must be given some flexibility in selecting which practices will allow them to achieve those objectives. The application of mandatory practices needs to be as site-specific as possible and address all parts of a site rather than only small portions that may be eroding heavily, for example.

MONITOR WATER QUALITY THROUGHOUT THE MINNESOTA RIVER BASIN

Rationale

Restoring the Minnesota River will require a significant financial investment as well as fundamental changes in the ways we use the land. It is essential, therefore, for us to precisely measure the impact that our efforts are having. We need to know how dirty the river is now, how much cleaner it becomes as we implement our restoration plans, and when we have achieved a swimmable, fishable river.

"There was a time when rivers determined the destiny of cities; now cities determine the fate of rivers. This is certainly true for the lower stretches of the Minnesota." -Suzanne Winckler

In the past, monitoring and assessment activities have been undertaken only for short periods of time. As a result, there is virtually no long-term trend information that can identify changes in nonpoint source pollution. The Minnesota River Assessment Project (MRAP), for example, provided critical information on the quality and quantity of water in the Minnesota River over a four-year period. But the study period is now over and funding to continue this work has not been secured.

Currently, much of the data that has been collected on the Minnesota River is scattered and difficult to access. Data is stored in any number of agency and government databases. Much of the data has yet to be compiled, analyzed, or summarized in a form that the public can readily understand. It is time for all of this data to be gathered in a central location.

In order to assess whether our efforts are actually resulting in improvements in water quality, a long-term commitment is needed to continue gathering, collecting, and analyzing water-quality information. Unless we monitor our progress, we may make erroneous conclusions about the effectiveness of our programs and spend our resources unwisely. The monitoring system should provide answers to critical questions regarding the condition of the river, the effectiveness of cleanup activities, and where we should place additional staff and resources.

Action Plan

1. Develop a permanent monitoring network

It is absolutely essential that we create a permanent monitoring network in the basin. This monitoring effort should be an extension of the MRAP study, although it does not need to be as comprehensive. Information from MRAP and subsequent monitoring efforts should be used to evaluate progress on river cleanup activities and to identify watersheds where additional resources may be needed. In particular, the data collected from

monitoring should be used to evaluate and refine the pollution load allocations currently being developed by the Minnesota Pollution Control Agency (MPCA) and the Metropolitan Council. (More information on pollution load allocations appears later in this report.)

The MPCA should maintain state-of-the-art monitoring stations at the mouths of the 12 major watersheds in the Minnesota River basin. Within each watershed, local organizations, with help from the MPCA, should set up a network of monitoring stations that will help them pinpoint where pollution is coming from. To the greatest extent possible, the MPCA and the local organizations should engage schools, environmental organizations, and individual landowners in the monitoring process. The Citizens' Advisory Committee recognizes that monitoring water quality in rivers and streams is a complex process that requires technical expertise. Nevertheless, the Committee believes that involving citizens in the monitoring process is one of the best ways to give the general public a sense of ownership in the Minnesota River cleanup effort.

2. Collect, store, analyze, and interpret data on a regular basis

All data gathered through the monitoring process should be collected and housed in an academic institution where it will be analyzed, interpreted, and checked for quality assurance. Annual reports on water quality should be developed by this institution and presented to the newly formed Minnesota River Commission. (For a description of the Minnesota River Commission, see the next recommendation in this report.)

The academic institution should also develop a user-friendly system for retrieving the information. It is important that governments, agencies, and individuals throughout the basin have easy access to the data. This information system should be networked with the Land Management Information Center and the state agencies that maintain water quality databases.

Water quality trends should be related to the fishable/swimmable goal for the river and be put into language that the public can readily understand.

Costs

The creation and maintenance of this monitoring system when fully implemented could cost $2–3 million per year.

ESTABLISH A MINNESOTA RIVER COMMISSION TO OVERSEE THE CLEANUP EFFORT

Rationale

A new institutional structure is needed to ensure government accountability and citizen participation in meeting Minnesota River cleanup goals. The Citizens' Advisory Committee proposes the creation of the Minnesota River Commission.

Action Plan

The functions of the Commission will include:

- Establishing goals for the cleanup effort. (It is hoped that this report and the work of the Minnesota River Assessment Project will guide and expedite the planning efforts of the Commission.)
- Providing broad oversight of major agency activities related to the Minnesota River and facilitating inter-agency cooperation.
- Evaluating the effectiveness of expenditures.
- Advocating for and educating people about the river and the cleanup effort.
- Holding an annual conference on the state of the river.

The Commission will not be involved in the day-to-day operations of agencies, but will have access to information and the decision-makers within those agencies. In addition to being accountable to the citizens of Minnesota, the Commission will report to the Governor and the Legislature. The following structure is recommended.

Citizens — These members should be chosen to represent the diversity of interests in the river basin — farmers, business people, educators, and conservationists. These citizens should be knowledgeable about and actively interested in the Minnesota River. To convince the general public that the Commission is not just another government agency, it is essential that at least half the members of the Commission come from this group.

Local organizations — These members should be elected officials or agency staff who have already been working to clean up the river and who have been cooperating with other local organizations in that effort.

State agencies — These members should be the Commissioners or Deputies of agencies directly involved in Minnesota River issues, including MPCA, BWSR, MDA, and MDNR. In addition, one or more top representatives from Minnesota Extension Service (MES) or the University of Minnesota should be included.

Dakota communities — Members should include representatives of the Shakopee Mdewakanton, Lower Sioux, Upper Sioux, and Prairie Island Dakota communities.

Costs

The costs, estimated at $100,000 per year, will include staff and administrative support as well as per diem expenses for Commission members.

ESTABLISH LOCAL JOINT POWERS AGREEMENTS

Rationale

The major goals for the cleanup effort will be developed by the Minnesota River Commission, based on the work of the Citizens' Advisory Committee and the Minnesota River Assessment Project. The strategies used to accomplish these goals, however, should be developed and managed at the local level.

There are two major political problems confronting local governments and agencies as they address the Minnesota River cleanup project. One is that counties are drawn along political lines that do not coincide with the geographical boundaries of the various watersheds within the river basin. The other is that within each watershed there are often several units of government which must develop their own plans for managing water quality. Those plans are not always coordinated, and they sometimes conflict.

The counties and other units of government within each of these watersheds should establish joint powers agreements which allow them to collaborate and share responsibilities for improving the water quality in their particular watershed.

Action Plan

There are 12 major watersheds in the river basin (as shown on the map opposite page 3):

Upper Minnesota River	Middle Minnesota River
Pomme de Terre River	Cottonwood River
Lac Qui Parle River	Blue Earth River
Hawk Creek/Yellow Medicine River	Watonwan River
Chippewa River	Le Sueur River
Redwood River	Lower Minnesota River

The Minnesota Pollution Control Agency and the Metropolitan Council are now in the process of developing pollution load allocations for each of these watersheds. It is imperative that this work be completed as soon as possible. Pollution load allocations specify the amounts of various pollutants that can safely be discharged from a particular watershed. The information will be used by each of the joint powers organizations to develop their cleanup strategies. It will mean that the most cost-effective level of treatment can be determined based on the unique characteristics of each watershed.

Each joint powers organization will be responsible for meeting the pollution load allocations at the mouth of their watershed. It will be up to all of the local organizations, working together, to find ways to meet those goals. Activities of the joint powers organizations should include:

- maintaining open lines of communication with the general public
- coordinating county and watershed water plans
- administering SWCD programs
- working with landowners to develop farm plans
- enforcing environmental laws
- administering soil loss ordinances
- monitoring water quality
- conducting urban planning, zoning, and land-use planning
- performing public education

Joint powers organizations will report to the Minnesota River Commission. This will help the Commission assess progress and identify where additional resources may need to be targeted.

Agencies in the Upper Minnesota River and Blue Earth watersheds have been working with their counterparts in South Dakota and Iowa, respectively. These efforts have been productive and should continue under the joint powers agreements.

IMPROVE TECHNICAL ASSISTANCE TO LOCAL GOVERNMENTS

Rationale

A successful Minnesota River improvement program requires that people at the local level be actively engaged in the process. Many local agencies and units of government would like to become more active in water quality projects but lack the financial and human resources to do so. At the same time, state agencies lack the resources to respond to the needs of local governments.

Technical expertise is a major limitation for local organizations trying to address nonpoint source pollution in the Minnesota River basin.

Technical expertise is a major limitation for local organizations trying to address nonpoint source pollution in the Minnesota River basin. The lack of technical capabilities at the local level manifests itself in an inability to satisfactorily define local problems, set realistic goals, and carry out successful implementation programs. These factors make local water resource initiatives difficult to undertake and even more difficult to sustain.

Nevertheless, local government is still in the most favorable position to conduct the projects necessary to achieve water quality goals. Planning and implementation are best done at the local level because many of the land-use decisions and laws are local in nature, and because people at the local level are the ones who have the most to gain. There are a number of successful locally managed programs in the Minnesota River basin that are working to reduce nonpoint source pollution. Examples include Big Stone Lake Restoration, the Redwood River Clean Water Partnership, and the Blue Earth River Initiative. These projects have been initiated, in most cases, because local people have determined a need and have been able to gain assistance from experts at the state and federal levels. This same spirit of cooperation must be fostered throughout the Minnesota River basin.

Action Plan

State government, through its agencies and university system, has an obligation to guide local governments in building the expertise that is needed to successfully implement water cleanup projects. Guidance is needed in a number of areas, such as designing surface water monitoring networks, establishing water quality goals, training in the use of Geographical Information Systems, creating design standards for pollution abatement measures, and interpreting research findings.

Promotion, design, and applications of individual land-use plans also rely on having qualified technical assistance at the local level. Having

sufficient technical staff within a watershed (which will be aided by the creation of joint powers organizations), supplemented by state guidance, will greatly accelerate and improve the effectiveness of implementation activities.

Implementation strategies must be based on sound water quality data. This data will be provided at the outset by the pollution load allocations and throughout the cleanup effort by regular monitoring. The State of Minnesota, acting through its agencies and university system, can be of further assistance by offering training programs for local staff.

Technical assistance will be a fundamental part of improving the Minnesota River. This will require immediate and sustained attention, so that every effort is made to achieve adequate support in the first year and maintain that support through a project's duration. The temptation to provide a small staff at the onset and then gradually build capacity should be resisted.

Collaboration by state and local government brought about by the type of partnership outlined in this recommendation will lead to a much more efficient use of tax dollars.

Costs

Expanding technical capabilities will require more staff at both levels of government. Based on costs incurred in watersheds where adequate technical assistance is now being offered, it is expected that implementing this program basin-wide would cost about $2.3 million per year. These costs will be offset by better decision-making, increased efficiency, and accelerated application of sound land-use practices. The system currently in operation tends to be based less on the needs of the resource in question and more on political expediency. This results in funds not being targeted to projects that may have the greatest positive effect on water quality. Collaboration by state and local government brought about by the type of partnership outlined in this recommendation will lead to a much more efficient use of tax dollars.

ENGAGE THE GENERAL PUBLIC

Rationale

Urban residents are often unaware that their activities as individuals and as users of an urban infrastructure contribute to polluted runoff in nearby rivers and streams. Some people in the agricultural community believe that there are no viable agricultural production systems that will reduce pollution and still be profitable. In order for the Minnesota River cleanup project to be successful, these perceptions must change. People throughout the basin need to come to understand the costs of a polluted river, the benefits of a clean river, and the actions they can take to help make the river clean.

"To preserve river values, our streams must be deliberately managed for diversity -- not just for the canoeist, not just for the species of fish that provide sport to the angler, but rather for the myriad of life forms that living interdependently are unique to flowing waters."
-Thomas Waters

Education efforts should foster an ongoing exchange of information and peer support for residents of urban and rural municipalities to make the transition to sustainable practices. The public needs to develop a basic understanding of the ecosystem, regional environmental goals, and trends that affect the environment. In addition, educational programs should model outreach, cooperation, and joint stewardship of natural resources. Programs should foster the use of holistic planning frameworks with which to evaluate alternatives and make decisions that strengthen our human community and restore ecological integrity to the basin.

Action Plan

1. Use participatory educational approaches

Unlike some educational programs, the emphasis should not be on materials development but on encouraging citizen participation. Citizens should be involved in designing local programs and training the trainers. High turnout goals for participation should be developed and monitored.

Existing information exchange and peer support networks will be utilized and supplemented as necessary. Examples include chapters of the Sustainable Farming Association of Minnesota, Clean Up our River Environment, Land Stewardship Project, Friends of the Minnesota Valley, Coalition for a Clean Minnesota River, Citizens for Big Stone Lake, ridge till clubs, and other groups where farmers and urban residents are encouraged to share information on sustainable practices.

2. Conduct whole resource planning

Existing providers should be trained to assist farmers and municipalities in whole resource planning. The process should include participatory field days and events.

Farmers will be engaged in whole farm resource planning and decision-making to integrate quality of life, profitability, and long-term health of the ecosystem. This type of holistic decision-making can lead to significant changes in farming systems that will improve water quality and be profitable for the farmer.

Municipalities also will be trained in whole resource planning to incorporate into existing watershed and community planning efforts. Schools, churches, business associations, and community education should be involved to help commercial and residential landowners improve their management practices.

3. Form collaborative teams

The processes of creating shared visions and collaborative educational training will require partnerships among existing information providers and networks. These include the Minnesota Department of Agriculture, nonprofit sustainable agriculture, environmental and wildlife organizations, MES, Minnesota Institute for Sustainable Agriculture (MISA), other academic groups, agencies, consultants, farm organizations, community education programs, elected and appointed officials, and business leaders.

The University of Minnesota, the MES, and MISA should prepare comprehensive research and extension plans for community capacity building. The plans should integrate state and local partnerships and existing staff capabilities. At the same time, the newly created joint powers organizations should develop a whole resource plan that includes a nonpoint source pollution education program.

Citizens within each watershed should be involved in developing shared visions of social, economic, and environmental health. These visions will become the basis for a shared vision for the Minnesota River basin as a whole.

Costs

Basin-wide, the cost for these programs is estimated at $1 million per year. It is expected that this investment will lead to long-term improvements in water quality and the flexibility to adapt to changing market, regulatory, and social climates.

ENFORCE EXISTING LAWS

Rationale

Minnesota has many laws designed to protect water quality. Unfortunately, the laws are not always enforced. Enforcement is difficult for several reasons:

- Under the current system, there are often very few incentives for state and local governments to enforce environmental laws. Enforcement can be costly, time-consuming, and politically unpopular.
- Neither local governments nor state agencies are adequately staffed to develop education and outreach programs that encourage voluntary compliance or to vigorously look for and prosecute violators.
- There is currently no institution charged with oversight of state or local enforcement activities. Citizens and environmental advocacy organizations do not have a clear channel of communication when they see individual landowners breaking the law or government agencies failing to fulfill their enforcement responsibilities.

A strengthened and coordinated system of enforcing existing environmental laws is needed at both the state and local levels if the goal of a clean Minnesota River is to become a reality.

Action Plan

1. Convene a conference on enforcement

The newly formed Minnesota River Commission, in collaboration with state and local enforcement agencies, should convene a conference on enforcement of environmental laws. The purposes of the conference should be to develop a thorough assessment of enforcement problems and prescribe corrective actions.

2. Increase staff and funding for enforcement

Additional resources are needed at both the state and local levels to improve compliance with existing environmental laws.

- Additional funding is needed to train staff who are involved in enforcement activities.
- Additional county staff are needed to enforce existing laws.

- There should also be an expansion of state agency staff, including an expanded number of MDNR Conservation Officers, who are trained to enforce environmental laws in cooperation with local officials.
- The Attorney Generals Office needs additional staff to serve as a consultation team on state and local environmental law enforcement cases and to assist in the prosecution of cases when requested by County Attorneys.

A strengthened and coordinated system of enforcing existing environmental laws is needed at both the state and local levels if the goal of a clean Minnesota River is to become a reality.

3. Appoint a Minnesota River ombudsperson

A Minnesota River ombudsperson role should be created, including adequate resources for staffing and administrative costs. The ombudsperson, who will be affiliated with the Minnesota River Commission, will investigate citizen complaints and work with the appropriate agency (either state or local) to resolve problems. The ombudsperson will act to ensure that violators of the law are prosecuted when a state or county government has failed to do so and will work with agencies to improve the manner in which they handle enforcement actions.

The ombudsperson should have independent authority to investigate complaints and to enter into dispute resolution with the appropriate agencies.

The ombudsperson should report to the legislature annually.

4. Perform periodic performance audits of state and local governments responsible for enforcement

A periodic audit should be conducted of state and local government agencies charged with enforcement responsibilities. The audit should be coordinated by the Office of the Legislative Auditor. The audit team should include representatives of local and state government, environmental organizations, and industry.

Costs

The cost of strengthening enforcement at the state and local levels of government is estimated at $3.5 million per year during the initial stages of the river cleanup. Reduction or reallocation of these costs to education and incentive programs should be considered as voluntary compliance with environmental laws increases.

SUPPORT CHANGES IN FEDERAL FARM POLICY

Rationale

Agriculture has been and will continue to be a primary contributor to Minnesota's economic and social health. At the same time, we must also acknowledge a shift in society's attitudes about agriculture. This shift has meant an increased willingness to publicly fund protection of lands for future generations and a decreased willingness to fund commodity-based program payments to farmers. Consequently, a federal farm program must be crafted that protects public interests within the constraints of private property rights. National policy should build on past successes and capitalize on the willingness of the public to fund the protection of agricultural land. Changes are needed in the federal farm bill that will reward and aid landowners who manage the land in an environmentally sound manner.

Action Plan

1. Develop and implement whole farm plans

Development and implementation of whole farm plans should eventually be required in order for producers to receive program payments. This approach should be phased in over a certain number of years in order to phase out the use of commodity crop bases to determine payments.

2. Shift set-aside programs from annual to multi-year options

Set-aside programs should be blended with existing land retirement programs such as Conservation and Wetland Reserve Programs to comprehensively accomplish whole farm resource management objectives, as well as meet commodity supply targets of the federal government. Cropland most sensitive to environmental damage should be targeted for permanent retirement.

3. Continue to fund CRP and WRP at sufficient levels

The Conservation Reserve Program and the Wetland Reserve Program have been effective and have broad support from producers and the public. The CRP and WRP must be expanded within environmentally sensitive lands/ecosystems.

4. Shift research emphasis to sustainable agriculture

Sustainable agriculture consists of farming systems that provide sustained economic return to the producer while also emphasizing long-term stewardship of land, air, and water. Research and development of sustainable agriculture systems should be encountered by grants, cost-sharing, and other appropriate incentives.

5. Revise erosion control policies

We must revise soil conservation programs that only address highly erodible land and not the entire farm site. We should not focus all attention on a small portion of the farm site and ignore other areas where the total soil loss may actually be much more serious.

ADDITIONAL COMMENTS BY CITIZENS' ADVISORY COMMITTEE MEMBERS GREG MIKKELSON AND ORVILLE PIOSKE

The purpose of these comments is to add some of the other ideas which surfaced during Committee discussions.

Our concern in endorsing this report as the game plan to follow in cleaning up the river, is due to conflicting reports and research. We feel more research is needed and also more time to apply this information to recommend changes to help the river. We also are not convinced some of these ideas will improve the river substantially, nor do we think they may be the wisest use of public money.

The following comments are a response to the topic areas included in the report.

Restore Floodplains and Riparian Areas

These are excellent ideas, but simply buying land is not going to make beautiful green belts along our rivers and tributaries.

We have not been told how to make these areas green, nor do we know if it is possible, especially with the changes that have occurred along the river.

Also, when it is suggested to acquire all land in the floodplains, we presume this only means agricultural land, since we can't expect cities and people to move.

This will be very costly, with no plans after the purchase is made.

Restore Wetlands

This is a good idea and good use of money, but when you analyze the specific areas, very few would ever help the river, but they do have many other advantages that are worthwhile.

Manage Drainage Ditches and Storm Sewers as Tributaries

These are again good ideas, but requiring treatment of urban storm sewers will be too costly for the benefits to the river. In most cases we should let drainage ditches and storm sewers be repaired and remain in their present use and try to work on changes in new construction, expansion, and development.

Monitoring Water Quality Throughout the Minnesota River Basin

We already have a lot of data that is being collected, but it needs to be compiled and used.

Establish a "Minnesota River Commission" to Oversee the Cleanup Effort

We already have too many commissions and others working on the problem. It could be effective if we would end many of the other existing groups.

Establish Local Joint Powers Agreements

Pollution load allocations is how we got in trouble in the first place. Why should we put anything into the river and just because you have more water flowing by one area is no reason to be able to dump more in per person than another area.

Improve Technical Assistance to Local Governments

The amount of technical expertise needed is minimal. Many of the problems can be corrected by using common sense and the biggest change needed is to re-evaluate our priorities in water use on a personal and local level.

Enforce Existing laws

As we learned in our meetings, enforcement should be the last step, but as shown in the report, this might be closer to the first step. Administration, inspection, and education should come first. We need fewer enforcement staff and more teachers, inspectors, and education staff. We need more positive reinforcement, and more people helping people change the river. Many people and groups will gladly pay the fines to pollute because it is cheaper. This is one reason why we are looking at nonpoint source pollution. It is to maintain pollution load allocations from some point sources.

Changes That Need to Be Made

The farm programs should not encourage land to be farmed that should only be grazed or used in other ways.

Farmers have made many changes already that will show up in the future on the river condition such as: less tillage, less fertilizer and chemical use,

CRP, HEL requirements, more residue, and other BMP's. Data has been collected but not released, that should show these practices are already working.

All people need to review the pros and cons and the impact on water quality such as development along waterways, the need for fast drainage from our roads and streets, the use of salt and chemicals by the city, county, and state, the use of water chemicals, and fertilizer on our lawns, the amount of wastewater from our households, and many other causes of pollution in our lives that we call progress. Almost everything we have touched has had a negative impact on the river.

We believe the agricultural community has and will continue to make improvements. We do need time to adjust to a new set of priorities. It was not too long ago we were encouraged by the federal government that our duty was to feed the world by producing food cheaply. So farmers tiled, dug drainage ditches, bought more and larger equipment, and used more fertilizer and chemicals in trying to be a part of this noble cause of feeding the world, which we felt was what society wanted. This did not happen overnight, nor can we now make any of these changes overnight. Likewise, cities, roads and sewers, etc., would have been built much differently with our clear 20/20 hindsight of our present priority.

Again, we feel that agriculture will rise up to meet this challenge when given information, time, and a level playing field to make changes to reduce the potential economic hardships that may occur.

As farmers and concerned citizens, we are willing to be a part of this change to have an economically sound and significantly noticeable impact on the river before it leaves our state to join the Mississippi River.

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APPENDICES

APPENDIX A

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APPENDIX B

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APPENDIX C

FUNDING OPTIONS FOR GOVERNMENT AGENCIES

Restoring, enhancing, and preserving the environmental quality of the Minnesota River Basin will require significant funding from both private and public sources. Funds utilized in watershed improvement programs should be viewed as an investment in the future of the basin.

Nonpoint source pollution programs have traditionally been underfunded, with the bulk of federal and state funds going to address point sources of pollution.

Government and the public must now be willing to invest the resources that will be needed to tackle the greatest remaining threat to water quality.

A number of programs that focus on nonpoint source pollution already exist in Minnesota. These programs, however, are often poorly coordinated and are not usually targeted within specific areas of the state. Within the Minnesota River basin, some state and federal program funds are beginning to be targeted to this particular river basin. These funds, however, are inadequate and will not likely lead to significant improvement in water quality in the short or long term.

In developing future funding programs for the Minnesota River project, the following principles should be considered:

- Internalize external costs where possible — the polluter pays.
- Consider the ability to pay and provide financial assistance when necessary.
- Share costs fairly among those who benefit.
- Look for ease of administration.
- Look for long-term predictability of funding source.
- Spread costs broadly to minimize specific impacts.

This committee will not advocate for particular funding sources, but presents a list of possibilities for agency staff and legislators to consider.

1. Federal funds

a. Clean Water Act section 319 funds for nonpoint source pollution programs.

b. USDA Conservation Programs

c. US Fish and Wildlife North American Waterfowl Plan Funds

2. State funds

a. State bonding
b. State revolving funds
c. General revenue funds
d. Permit and regulatory fees (ex. Feedlot permits)
e. Fish and wildlife funds - fishing/hunting license fees
f. Fertilizer and pesticide tax
g. Storm water utility fees
h. Real estate transfer fees
I. Local taxes and levies
j. State sales tax
k. Private sector funds
l. Motor vehicle transfer fees
m. Water appropriation fees
n. LCMR funds

APPENDIX D

GENERAL OVERVIEW OF THE MINNESOTA RIVER ASSESSMENT PROJECT

The Minnesota River Assessment Project (MRAP), completed in 1992, measured the causes and extent of pollution in the Minnesota River. The study's findings suggest that an aggressive, broad-based implementation program will be needed in order to return the river to a fishable/swimmable condition.

The quality of water in the Minnesota River has been significantly degraded by surface runoff or "nonpoint source pollution." Nonpoint source pollution cannot generally be traced to a single source. Nonpoint sources of pollution can include discharges from septic tanks, runoff from construction sites, agricultural fields, feedlots, and suburban and urban developments.

Wastewater treatment plants and industrial facilities can also contribute to water quality problems. Their impact is typically more pronounced during low flow periods when the volume of water in the river is lower and pollutants entering the river cannot be diluted.

Four major water quality problems were identified by the MRAP report. They are:

- bacterial contamination
- sedimentation
- nutrient enrichment
- watershed (hydrologic) modifications

Bacterial levels, especially fecal coliform bacteria, were elevated throughout the river system. Fecal coliform is an indicator of pollution caused by sewage and animal manure. Fecal coliform levels are used to indicate if water is safe for full-body contact during water-related activities, such as swimming. High bacteria counts were found during high and low flow conditions, suggesting that there are constant sources of bacteria entering the river system. These sources may include faulty treatment plants, septic systems or feedlots that discharge directly to the river.

Ninety percent of the sediment in the Minnesota River is characterized by fine particles of silt and clay that are easily transported in water (Payne 1994). The Minnesota River carries more suspended sediment than most other rivers in the state. Sediment can degrade water quality by filling reservoirs, smothering aquatic habitats, altering biotic communities, increasing water treatment costs and reducing the river's aesthetic qualities. Sediment also absorbs solar energy, raising water temperatures and reducing the amount of dissolved oxygen that is available for aquatic life. Nutrients and toxic substances can become attached to sediment particles and move with them, creating water quality problems where they settle in the river bed downstream.

Nitrate-nitrogen exceeded the standard of 10 mg/l most of the year below Mankato. Phosphorus levels generally exceed 200 µg/l. These levels suggest highly enriched conditions that favor the growth of algae in the river. When algae dies, the decomposition process begins, removing dissolved oxygen

from the water. Without adequate levels of dissolved oxygen, the river cannot support healthy populations of fish and invertebrates.

Historically, the river basin's upland areas had limited connection to the Minnesota River. The river's flow was controlled by deep aquifers and surface water delivered by its tributaries. The tributaries, however, delivered very little sediment or nutrients from the uplands because of the existence of well developed riparian zones and natural vegetation in their watersheds. Construction of storm sewers, drainage ditches and tiling systems over the past century have changed the landscape dramatically and accelerated the movement of water and pollutants from the land to the river.

Today, large quantities of organic and inorganic matter are transported to the Minnesota River during surface runoff events. Although a tributary stream may appear to generally have better water quality than the main river, this can change quickly during brief and intense storms. During those events, the tributaries can deliver significant pollution loads that ultimately affect water downstream.