

Minnesota Board of Water and Soil Resources. Minutes.

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Version 3
August 20, 2018

BOARD OF WATER AND SOIL RESOURCES

MINUTES OF THE MEETING HELD
DECEMBER 20, 1989

Appointed Members in Attendance
Donald Ogaard
John Williamson
John Boulton
Doug Bade
Eugene Kalmes
Lowell Moen
Ken Schellack
Don Warner
James Hoese
Loren Harste
John Brooks, Jr.
Howard Peterson
William Cofell
Jack Graba

Appointed Members Absent
Loni Kemp
Natalie Haas Steffen

Others in Attendance
Dr. George Foster, University of Minnesota
Ray Thron, Minnesota Department of Health
Laurel Reeves, Minnesota Department of Natural Resources
Wayne Anderson, Minnesota Pollution Control Agency
Paul Burns, Minnesota Department of Agriculture
Dwain Otte, D'Wayne DeZiel, and Ken Pederson, Minnesota Association of Soil and Water Conservation Districts
Al Dornfeld and Warren Wallgren, Minnesota Association of Watershed Districts
Franklin Denn, Minnesota Association of Townships
Gary Nordstrom, Soil Conservation Service
Paul Kalass and John Sumption, Minnesota Association of Conservation District Employees
Kim Benson
Joe Richter

Staff in Attendance
Jim Birkholz
Mel Sinn
Wayne Edgerton
Dave Behm
Bruce Sandstrom
Dan Steward
Pat Bloomgren
Greg Larson
Doug Thomas
Denice DeFrates
Mark Nelson
Mary Jo Anderson

Meeting Called to Order - Chairman Ogaard called the meeting to order at 9:15 a.m.

89-108 ** Adopt Agenda - Moved by Warner, seconded by Boulton, to adopt the agenda as presented with a few additions. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

Approval of Minutes of November 22, 1989 - Eugene Kalmes stated that his name should be listed as being in attendance at the November meeting. John Williamson stated that a correction needs to be made on page 6, regarding the MASWCD Resolution #28, BWSR Membership. John Williamson was acting as Chair of the meeting at that time, he did not second the motion, John Boulton did. Moved by Williamson, seconded by Warner, to approve the minutes of November 22, 1989, as corrected. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

89-109 **

Chairman's Report - Chairman Ogaard reported on the Minnesota Association of Watershed Districts' Annual Convention, November 30 - December 2, 1989, at the Arrowwhead Lodge in Alexandria. He stated that this was the largest attendance ever at this convention. He stated that the session were excellent. He also reported on the Minnesota Association of Soil and Water Conservation Districts' Annual Convention, December 3-4, 1989, at the Kahler Hotel in Rochester. The mini-sessions were excellent, attendance was great. He gave credit to those involved with organizing the convention.

Executive Director's Report - Jim Birkholz reported that the maximum reimbursement for meals has increased. He distributed a handout for the Board's information on this. The new maximum rates are $7.50 for lunch and $13.50 for dinner.

Jim thanked Al Dornfeld and Dwain Otte for the excellent conventions, and their assistance in making them run smoothly. He appreciated the fact that staff did not have many assignments and were able to be involved in the sessions.

The deadline for submitting applications for the Environmental Agriculturalist Education Program is January 15. The Steering Committee for the proposed Cannon River Watershed project met on December 14. He stated that there is good participation and interest for a water protection project.

Jim reported that the EQB/Water Resources Committee did not meet in December. They did however hold a public meeting on December 18, regarding the proposed State Water Plan. He stated that approximately 80 people were in attendance. Jim, Pat Bloomgren, Mel Sinn, and Loni Kemp acted as facilitators and recorders at the meeting. The Water Plan deadline is November, 1990.

Jim reported on the status of the bonding request. The BWSR and DNR both have a $12 million request for a total RIM package of $24 million. The Governor is presently developing his capital bonding bill recommendation.

Dispute Resolution Committee Update on the Forest Lake WMO Plan -Chairman Ogaard briefed the Board on the Dispute Resolution Committee's (DRC) reaction to the hearing results on the WMO plan. He asked the members of the DRC to meet during the lunch hour today to discuss this issue. Bruce Sandstrom updated the Board on the meeting held regarding the Forest Lake WMO Plan. The DRC adopted five findings to include in the plan. The WMO has taken initial action on one of them. Bruce stated that the overall Forest Lake WMO Plan is a very good one. Staff will pursue the implementation of DRC recommendations with the Forest Lake WMO. Further BWSR action can take place if needed at the January meeting.

Windbreak Retention Pilot Program - Ken Schellack explained a proposed pilot project for northwestern Minnesota, involving four SWCDs - Norman, Marshall, East Polk and West Polk. He stated that the NRI in 1982 showed a soil loss of 9 million tons. He asked for the Board's consideration of this project. This would be a two-year pilot project. The proposal would establish tree windbreaks by focusing on windbreak maintenance. Ken stated that Dick Ness and Dave Behm have been assisting local SWCDs to develop the pilot project. The total amount of this proposal is unknown at this time, they are looking at some use of the cost-share program. The proposed pilot project would cover the following areas: educational, financial assistance, establishment windbreak, maintaining new and existing windbreaks, cooperation with local landowners, and research. Dave Behm stated that there is a need to assist in renovating and maintaining existing windbreaks. Landowners are pulling windbreaks out for a number of reasons; aging windbreaks, dissatifaction, etc. Chairman Ogaard suggested contacting the ditch/drainage authority regarding this proposal. Dwain Otte suggested alternatives to planting of trees, (eg) shrubs planted at 200' intervals. Ken Schellack stated that a specific proposal has not been completed yet, but this issue will be brought before the BWSR for consideration at a future meeting.

Loren Harste reported on a meeting he attended in Appleton regarding the Pomm de Terre River. Approximately 25 people were in attendance, including officials from DNR, PCA, SCS, U of M, SWCDs, Counties, RDCs. He stated that in 1979 people had worked to establish a watershed in that area. They decided to establish a Joint Powers Board instead. The outcome of the meeting was a steering committee in favor of establishing a watershed district. He asked for Board assistance on this. Staff will make contacts and work with the steering committee.

Review of the Metropolitan Local Water Management Task Force Report - Don Ogaard reported that the task force meetings had fairly good attendance. The Executive Summary was distributed for the Board's information. Bruce Sandstrom reviewed the five major conclusions of the report with the Board. The final report will be printed and distributed to the legislature shortly. Mel Sinn stated that there are three areas of concern: guidelines and standards; accountability and oversight; and general legal clarification. Bruce stated that Met Council took a stand that they be the approval authority for plans. The task force adopted an addendum to the report, recommending the legislature consider the structure of the plan review process, incorporating point and non-point pollution control. Bill Cofell asked where in the report does it state that additional staff are needed, as additional responsibilities are listed. Chairman Ogaard

commended staff on the successful completion of the task force. Jim Birkholz recognized Mel Sinn, Bruce Sandstrom, Mark Nelson, and Joe Richter with a plaque for their outstanding efforts on the task force.

Recognition of Board Members Whose Terms Expire 12/31/89 - Jim Birkholz stated that the terms of Eugene Kalmes, Ken Schellack, Lowell Moen, and Doug Bade expire December 31, 1989. The Governor's office has also been involved in recognizing the four members whose term expire. Chairman Ogaard and Jim presented a letter and certificate of commendation to each member from the Governor. They were also presented a plaque on behalf of the Board. Each of the outgoing board members made brief remarks.

Chairman Ogaard recessed the meeting for a break and photo session at 10:45 a.m. The meeting reconvened at 11:05 a.m.

Chairman Ogaard reported that Loni Kemp was unable to attend the meeting today because of weather conditions in her area, but she expressed thanks to Gene, Ken, Lowell, and Doug for their efforts as board members. Bill Cofell personally thanked the four members, Howard Peterson and Chairman Ogaard endorsed Bill's comments.

Erosion and Sediment Control Cost-Share Program Roll-Over Allocations - Greg Larson presented the staff recommendation for the cost-share program roll-over funding. He stated that a total of $253,014 is available for 22 SWCDs which applied. After discussion
89-110 it was moved by Cofell, seconded by Warner, to approve the staff recommendation as
** presented. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

Cost-Share Rule Update - Greg Larson updated the Board on the rule amendment process and the importance of updating the erosion and sediment control program rules.
89-111 Moved by Cofell, seconded by Williamson, to direct staff to proceed on the amendments
** to the cost-share rules. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

Greg Larson updated the Board on a meeting held on December 13, regarding the proposed local water resources protection and management program rules. He gave an overview of activities and procedures that have been followed regarding establishing the grant program. He stated that a combination of factors such as the base amount, competitive portion, and cash or soft match requirements will be determined. Greg stated that the proposed rule will be published in the State Register in March. The Board will have an opportunity to review the rules at the January meeting.

Pat Bloomgren briefed the Board on the outcome of the meeting she attended today with the Department of Finance, the Department of Revenue, and the State Planning Agency regarding a levy exemption for local water plans. Pat reported that there was a favorable reaction among the three agencies, more research is needed on actual costs.

The Department of Revenue will be provided with additional information with the goal in mind of administration support for a levy exemption. Jim Birkholz will be working with the associations on this. Pat stated that Marilyn Lundberg of the State Planning Agency was a key to the success of the meeting today.

Advisor Comments
Gary Nordstrom, Soil Conservation Service, offered his thanks and appreciation to the four departing board members. Gary reported that SCS is wrapping up the compliance planning for the Food Security Act. He reported that ASCS accepted 150,000 acres of the last CRP sign-up. He stated that he does not know if there will be any additional CRP sign-ups available. Gary reported that a new Area Conservationist has been hired in Rochester. John Nicholson will be starting on January 22. He reported that the State Resource Conservationist position is still vacant.

Dwain Otte, Minnesota Association of Soil and Water Conservation Districts, thanked the four departing members for the time they have spent working on soil and water conservation. Dwain reported that the MASWCD had a good convention in Rochester. 751 people were in attendance. The conservation farmer luncheon was very well attended, the mini-sessions were excellent. He appreciated the opportunities the BWSR staff had this year to become involved in the sessions, rather than having work assignments. Dwain reported that the convention will be held in Minneapolis in 1990, and in Duluth in 1991.

Al Dornfeld, Minnesota Association of Watershed Districts, thanked the staff for their participation and assistance at the MAWD convention in Alexandria. He commended the efforts of the four board members who are leaving.

Franklin Denn, Minnesota Association of Townships, reported that the MAT held their annual meeting about a month ago. A resolution was passed at the meeting to have uniform pesticide application. He stated that he enjoyed the working relationship he had with the four members who are leaving.

Paul Kalass, Minnesota Association of Conservation District Employees, reported that attendance at the MASWCD Convention was excellent. The district employees were very involved in the sessions. Paul reported that the MACDE has appointed an advisor to the BWSR, John Sumption from Cass SWCD. Keith Grow will also be sharing this position with John.

Chairman Ogaard recessed the meeting for lunch at 12:00 p.m. The meeting reconvened at 1:15 p.m.

RIM Reserve Wetland Restoration - Jim Birkholz stated that this issue is a continuation of discussion regarding use of the RIM program where mitigation is required. Jim presented the following proposed policy:

"BWSR Policy For Using RIM Wetlands For Wetland Mitigation

It shall be the policy of the Minnesota Board of Water and Soil Resources (BWSR) that wetlands enrolled in the RIM Reserve Program cannot be used to mitigate other wetland losses. The BWSR's intent is that wetlands restored or created by the RIM Reserve Program be "net gain" wetlands and not used for "no let loss" mitigation.

An exception may be made to this policy when all or a portion of the wetland restoration costs are supplied by another entity. When this happens, that portion of the restoration paid for from funds other than RIM funds may be credited toward mitigation of wetland losses if agreed to by that supplier of supplemental funds. A consideration for wetland values of the lost wetland vs. the restored wetland may be required."

Jim asked for input on the wetland values issue. Bill Cofell stated that determinations could be made by others such as MNDOT. Jim will take this information to the next RIM Coalition meeting for their reaction. This issue will be brought up again at the January BWSR meeting.

110B Comprehensive Local Water Planning - Dan Steward presented the draft order for the Hubbard County 110B Comprehensive Local Water Plan. Dan recommended approval of the Plan. Discussion followed. Moved by Bade, seconded by Cofell, to approve the Hubbard County 110B Comprehensive Local Water Plan. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

89-112
**

Dan Steward introduced 15 Red River Valley Plans for the Board's review. He reported that Lance Yohe is the project director for the group. Task force meetings are being held in the Red River Valley on these plans. Dan will update the Board on the task force meeting at the January BWSR meeting.

Dan briefed and updated the Board on the Douglas County plan, which was introduced at the November Board meeting. Dan stated that action should be taken on the Douglas County plan at the January Board meeting.

Dan distributed copies of an article that was published in the "Lake Region Echo", a newspaper in Alexandria, regarding water plans, for the Board's information. Dan also distributed "A Plan For Action" - a summary of Beltrami County's comprehensive local water plan, published by Beltrami County.

LCMR Proposals - Jim Birkholz reported that LCMR will be accepting proposals until February 16. Proposals for funding will be accepted from three areas: 1) Minnesota Future Resources Fund (MS 116P.13) estimated amount available $18 million - for new, innovative, or accelerative projects in the areas of recreation, water, education, agriculture, forestry, fisheries, wildlife, land, minerals, air, waste. 2) Minnesota Environment and Natural Resources Trust Fund (MS 116P.08) estimated amount

available $5 million - for education, research, collection and analysis of information projects with long-term effects that employ an interdisciplinary approach to promote wise stewardship and enhancement of our state's environment and natural resources.
3) Oil Overcharge Money (MS 4.071) - estimated amount available $2 million - for projects resulting in decreased dependence on fossil fuels and for technology transfer with the same purpose. Jim asked members for ideas, development can be done at the January Board meeting. Ken Schellack stated that a proposal on the pilot project he referred to earlier in the meeting will be submitted for an LCMR proposal. John Sumption asked if a BWSR training person/staff would be appropriate to add to the list of proposals. Jim stated that proposals for RIM, the Cannon River watershed project, Red River Valley wind erosion project, leadership development, and others would be brought before the Board at the January meeting for development.

Don Warner, on behalf of Cook SWCD, invited the Board to hold their September meeting in Grand Marais. John Williamson invited the Board to hold their spring or fall meeting in the Kandiyohi County area.

Gene Kalmes read a letter regarding hillside pasture application to the RIM program, for the Board's information. He stated that he doesn't want to reward those who should be penalized for doing nothing.

Jim Birkholz, on behalf of the staff, wished everyone a Merry Christmas.

89-113 ** Moved by Warner, seconded by Boulton, to adjourn the meeting at 2:25 p.m. Affirmative: Ogaard, Williamson, Boulton, Warner, Bade, Kalmes, Hoese, Schellack, Harste, Moen, Graba, Brooks, Jr., Peterson, and Cofell. Opposed: None. Carried.

Respectfully submitted,

Donald Ogaard

Donald Ogaard
Chairman

Minnesota Board of Water & Soil Resources

Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, Minnesota 55107

(612) 296-3767

December 12, 1989

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

FROM: Jim Birkholz, Executive Director

SUBJECT: December 20, 1989 Board Meeting

Enclosed is the agenda and support materials for the December 20th BWSR meeting. Please note that the meeting will again be held at the Holiday Inn East, at the intersection of McKnight Road and Interstate 94, east of St. Paul. Board members wishing to make room reservations at the Holiday Inn East can call 612-731-2220.

Also, enclosed is a mailing from the Environmental Quality Board regarding the development of the State Water Plan. There will be a meeting on Monday, December 18th, from 1:00 p.m. until 4:00 p.m. to gather input for the development of the State Water Plan. This plan has received discussion and input through the Water Resources Committee. The working paper for a 10-Year Agenda for Protecting Minnesota's Waters is also enclosed. This document will also receive discussion at the meeting. While this is short notice if you are interested in and able to attend the meeting on Monday, please let me know and I'll make sure space is available.

Following is information regarding individual agenda items:

- Metropolitan Local Water Management Task Force Report. The task force will complete its work on December 15th. A briefing on the task force findings will be given at the Board meeting by Board members and staff who have participated in the process.

- Recognition of Outgoing Board Members. Board members Gene Kalmes, Lowell Moen, Ken Schellack, and Doug Bade all have terms ending December 31st of this year. These are the interim positions which are not scheduled for reappointment.

Regional Offices

Northwest Region
1819 Bemidji Ave.
Bemidji, MN 56601
218-755-3963

Northeast Region
Government Service Center
320 W. 2nd Street
Room 603
Duluth, MN 55802
218-723-4752

West Central Region
611 Iowa Avenue
Staples, MN 56479
218-894-1692

South Central Region
Box 756
New Ulm, MN 56073
507-354-2196

Southeast Region
Friedell Bldg., Room 100
1200 S. Broadway
Rochester, MN 55904
507-285-7458

Southwest Region
Box 111
1400 E. Lyon Street
Marshall, MN 56258
507-537-7260

East Central Region
Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, MN 55107
612-296-3767

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- Erosion and Sediment Control Cost-Share Roll Over Allocations. Enclosed is a listing of the unprioritized requests received from Soil and Water Conservation Districts. Requests totalled $684,000 while approximately $250,000 is available. Staff will be in contact with the districts between now and the Board meeting to further screen and prioritize the requests. The staff recommendation will be available at the Board meeting on the 20th. Also included on the Board agenda is a request for a motion to begin the process to update the erosion and sediment control cost-share program rules. We have received numerous suggestions for program improvements and modifications since the rules were last updated in 1985. Considering that the cost-share program is one of the key programs to be used for implementing comprehensive local water plans and food security act required plans, now is a good time to act on the rules revisions so that the process can be completed for the next program year.

- RIM Reserve Wetland Restoration Use in Mitigation. This discussion is a carry over from the November meeting. Staff will have additional information for Board deliberation on a policy related to this issue. Board action is not necessary at the December meeting unless the issue has been adequately explored.

- 110B Comprehensive Local Water Planning. The first meeting of the advisory group for rule preparation to implement the new grants program will be held on December 13th. A report from that meeting will be available. The Hubbard County Plan will be before the Board for final approval. We have received 15 plans from the Red River Valley and nine plans from southeastern Minnesota for final review. Representatives from the local planning joint powers agreements will be at the meeting to overview their final plans.

If you have additional agenda items or require more information please contact Chairman Ogaard or myself. I look forward to seeing you at the Holiday Inn East on December 20th!

JB:mja
Enc.

BOARD OF WATER AND SOIL RESOURCES
HOLIDAY INN EAST
I-94 and MCKNIGHT ROAD
ST. PAUL, MINNESOTA
DECEMBER 20, 1989

PRELIMINARY AGENDA

9:00 a.m.

1. Call to Order

2. Adopt Agenda

3. Approval of Minutes of November 22, 1989

4. Reports
   - Chairman's Report - Donald Ogaard
   - Executive Director's Report - Jim Birkholz
   - EQB/Water Resources Committee Report - Loni Kemp
   - Dispute Resolution Committee Update on the Forest Lake WMO Plan - Donald Ogaard, Bruce Sandstrom

5. Review of the Metropolitan Local Water Management Task Force Report - for information

6. Recognition of Board Members Whose Terms Expire 12/31/89

7. Erosion and Sediment Control Cost-Share Program Roll Over Allocations - for decision - Greg Larson

   Cost-Share Rule Update - motion to commend rules

8. Advisor Comments

Noon — Lunch

1:00 p.m.

9. RIM Reserve Wetland Restoration - continuation of discussion regarding use of RIM program where mitigation is required

10. 110B Comprehensive Local Water Planning - Hubbard County - for approval - Dan Steward

    Red River Valley Plans - for overview - Dan Steward

    Southeastern Minnesota Plans - for overview - Chris Hughes

    Brown County Plan - for overview - Chris Hughes

    Douglas County Plan Update - Dan Steward

3:00 p.m. — Adjourn

December 11, 1989

Unprioritized
Cost-share Program Roll-over Requests

Lake	$ 5417	
Lake	21649	
Carlton	21550	
Marshall-Beltrami	1500	
Kandiyohi	6000	
Olmsted	9000	
Waseca	8000	
Stearns	30000	
Mower	15500	
Pennington	32500	
Isanti	10000	
Washington	15000	
Kanabec	9000	
Goodhue	20000	
Traverse	34500	
Aitkin	3800	
Norman	307152	
Blue Earth	32500	
Meeker	4575	
Fillmore	30000	
Nobles	7000	
Carver	60000	
Total		$ 684643

D. DEPARTMENT CONTACTS

Prospective responders who have any questions regarding this Request for Proposal may contact:

Patricia A. Bloomgren, Assistant Director
Board of Water and Soil Resources
Suite 104, 155 South Wabasha
St. Paul, Minnesota 55107
(612) 296-3767

PLEASE NOTE: Other Board personnel are not allowed to discuss the project with responders before the submittal of proposal deadline.

E. SUBMISSION OF PROPOSALS

All proposals must be sent to and reviewed by:

Patricia A. Bloomgren, Assistant Director
Board of Water and Soil Resources
Suite 104, 155 South Wabasha
St. Paul, Minnesota 55107

—Not later than 4:30 p.m., January 15, 1990.

Late proposals will not be accepted. Submit 5 copies of proposal. Proposals are to be sealed in mailing envelopes or packages with the responder's name and address clearly written on the outside. Each copy of the proposal must be signed, in ink, by an authorized member of the firm. Prices and terms of the proposal as stated must be valid for the length of the project.

F. PROJECT COSTS

The Board has been authorized to spend a total of $400,000 for the biennium ending June 30, 1991. Responders for both large and small projects are encouraged to submit proposals.

G. PROJECT COMPLETION DATES

Successful bidders must complete their projects by June 30, 1991. Completed project products/reports must be submitted by August 15, 1991.

H. PROPOSAL CONTENTS

The following will be considered minimum contents of the proposal:

1. A restatement of the objectives, goals and tasks to show or demonstrate the responder's view of the nature of the project.

2. Identify and describe the deliverables to be provided by the responder.

3. Outline the responder's background and experience with particular emphasis on local, state, and federal government work. Identify personnel to conduct the project and detail their training and work experience. No change in personnel assigned to the project will be permitted without the approval of the Board.

4. Responder will prepare a detailed cost and work plan which will identify the major tasks to be accomplished and be used as a scheduling and managing tool as well as the basis for invoicing.

5. Identify the level of the Board's participation in the project as well as any other services to be provided by the Board.

I. EVALUATION

"All proposals received by the deadline will be evaluated by representatives of the Board of Water and Soil Resources. In some instances, an interview will be part of the evaluation process. Factors upon which proposals will be judged include, but are not limited to, the following:

1. Expressed understanding of project objectives.

2. Project work plan.

3. Project cost detail.

4. Qualifications of both company and personnel. Experience of project personnel will be given greater weight than that of the firm.

Evaluation and selection will be completed by March 1, 1990, or upon review by the Legislative Water Commission, whichever occurs later. Results will be sent immediately by mail to all responders."

Responder may propose additional tasks or activities if they will substantially improve the results of the project.

Prospective responders who have any questions regarding the request for proposal may contact:

James Collins, Director, Technical Services Division
MN Department of Labor and Industry
Regulation and Enforcement Division
443 Lafayette Road
St. Paul, Minnesota 55155-4308

All proposals must be sent to and received by:

James Collins, Director, Technical Services Division
MN Department of Labor and Industry
Regulation and Enforcement Division
443 Lafayette Road
St. Paul, Minnesota 55155-4308

Proposals must be received no later than 4:30 p.m., November 20, 1989. Late proposals will not be accepted. Submit four (4) copies of proposal. Proposals are to be sealed in mailing envelopes or packages with the responder's name and address clearly written on the outside. Each copy of the proposal must be signed, in ink, by an authorized member of the firm. Prices and terms of the proposals as stated must be valid for the length of the project.

The Department has estimated that the cost of this project should not exceed $5,000.00.

The project will be completed within three (3) months from the date of project authorization.

Board of Water and Soil Resources

Request for Proposals for Environmental Agriculturalist Education Contracts

This Request for Proposal does not obligate the State to complete the project, and the State reserves the right to cancel the solicitation if it is considered to be in its best interests.

A. SCOPE OF INTEREST

The Environmental Agriculturalist Education Program was established in Chapter 326, Article 2, Section 3 of the *Laws of Minnesota 1989* to develop and/or promote agricultural practices which protect our ground water and other natural resources. Projects which are funded must result in product(s) which provide a direct educational benefit to agricultural producers.

B. GOALS AND OBJECTIVES

The goal of this program is to produce and/or apply products (including programs, processes) which can improve the knowledge and understanding of agricultural producers of how they can alter their land management practices to provide a greater degree of ground water and other natural resources protection.

The objectives of the total program include:

(1) to work with agricultural producers;

(2) to advise and inform agricultural producers on the impact of certain farming practices and integrated pest management;

(3) to promote sustainable agriculture through use of best management practices and integrated pest management;

(4) to demonstrate and evaluate alternative pesticide practices;

(5) to develop and promote farm profitability through a reduction in farm inputs.

Responders need not address all objectives but must specify which objective they are proposing to work on.

C. PROJECT TASKS

Because of the variability of the objectives, a standard set of tasks is inappropriate. However, responder should consider that the State has an interest in the process as well as the product because successful project completion will require meaningful input from the affected clientele. Responder should, therefore, suggest in detail the process that will be followed if awarded a contract. Include details of such coordination mechanisms as steering groups, task forces, advisory groups, work groups, including proposed membership, focus, work plan, and results expected. Responder is expected to propose additional tasks or activities if they will substantially improve the results of the project.

MINNESOTA ENVIRONMENTAL QUALITY BOARD
300 Centennial Building · 658 Cedar Street · St. Paul, Minnesota 55155
612-296-2603

November 30, 1989

Dear Interested Person:

We would like you to come to a meeting on Monday, December 18 to discuss development of the State Water Plan. The meeting will take place from 1:00 p.m. until 4:00 p.m. in Room 301 of the Centennial Office Building, 658 Cedar Street, St. Paul. Please feel free to invite others that you believe might be interested. To help us prepare for the meeting, please RSVP by December 14 (drop us a note with the number of people coming, or call (612) 296-1424).

We will outline our schedule and concepts for the Plan at the meeting. More importantly, we want to hear your ideas about what the Plan should be and do, as well as how we can most effectively involve you and other interested people in its development.

We will also have a general discussion of the attached "Ten-Year Agenda for Protecting Minnesota's Waters." This is our first working paper on one element of the proposed Plan. We consider it to be a very preliminary document, but hope that it will stimulate creative thinking about Minnesota's long-term water needs.

At the present time (i.e., prior to your input), we see the State Water Plan as including the following parts:

1. A description of Minnesota's policy framework for water, the environmental, economic, and demographic settings in which water is managed, and the trends that may affect these settings and the way water will need to be managed;

2. The goals and principles that should guide the Plan and the management of water in Minnesota;

3. A "Ten-Year Agenda for Protecting Minnesota's Waters;"

4. Biennial Priorities for Action in the 1991-1993 Biennium;

5. A Water Resources Monitoring Plan; and,

6. Local and Regional Water Reports (that assess water management issues/needs by geographic units such as Minnesota's multi-county water planning units).

We hope to hear your ideas about these elements. Do they seem appropriate? How do you think we might approach them?

In thinking about the issues posed in the Ten-Year Agenda paper, we ask that you consider the following questions:

First, do you agree that the overarching theme should be "Striving for Holistic Management of Water and Land"?

Second, are the six priority areas appropriate?

Third, have we identified the really strategic issues facing us over the next ten years? What do you think these issues are?

Fourth, have we appropriately described the key objectives and related major actions within each issue?

Fifth, what might be done to make this document more far-reaching in identifying and meeting Minnesota's future water needs?

Please, tell us what you like, or do not like, about the ideas posed in the working paper. We encourage you to bring your general reactions and ideas to the meeting. In addition, we welcome your written comments and ask that they be submitted by February 12 so that we can consider revisions to the working paper and build ideas from it into the other elements of the Plan.

We believe that the participation of interested citizens and groups is crucial to the success of state water planning. We look forward to hearing your ideas about this venture on December 18.

Sincerely,

John R. Wells

John R. Wells, Coordinator
EQB Water Resources Committee

Attachment

cc: Members, EQB Water Resources Committee
Martha C. Brand, Chair

Jack Ditmore, Chair
Environmental Quality Board

The 10 -Year Agenda For Protecting Minnesota's Waters

Working Paper

EQB Water Resources Committee
November 1989

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Summary

Our Vision

The future of Minnesota depends in large part upon the future of its water resources. This future is influenced by the demands we place upon water as a result of population increases and economic growth, and through the associated waste disposal, land use, and water use practices. In order to protect the resource, we must understand how these activities taken together may affect it. We must also take the necessary steps to prevent damage to water and the people who use or are affected by it. Striving toward a holistic or integrated management of our water resources must be our emphasis.

The Agenda

The EQB Water Resources Committee identified six priority areas for water resource protection: 1. water supply protection, 2. infrastructure, 3. information, monitoring and assessment, 4. reduction of environmental pollutants, 5. managing the use of land and water, and 6. communication and education. Major issues which must be addressed were then identified within each area.

Each issue under a priority area is presented in three parts: title with brief description, ten-year objective, and major actions required. Research needs within the priority area are also presented. These were identified by WRC with the assistance of the Water Resources Research Center and the Water Resources Coordinating Committee of the University of Minnesota.

1. Water Supply Protection. Ample supplies of high quality waters are, and will continue to be, important to Minnesota for domestic, recreational, commerical, industrial, agricultural, and fish and wildlife uses. Future threats to these supplies can be anticipated from droughts, demands from other less water-rich regions, contamination emergencies, over use, and population growth. Possible impacts from global warming must also be considered. Actions to deal with these threats are needed to ensure our supplies.

- Well Protection.
- Standards.
- Water Availability.
- Global Warming.

2. Infrastructure. Minnesota's water resources infrastructure, including water and wastewater treatment systems and dams, has current needs which will increase in the future as these systems age. At the same time, government funds for infrastructure improvements are decreasing, and were never intended for replacement, repair or maintenance of previously funded systems. The ability to pay for system improvements will be of even greater concern in small communities and as the proportion of those on fixed incomes increases. Increased pressure from lakeshore and exurban development must also be addressed.

- Wastewater Collection and Treatment Systems.
- Water System Distribution and Treatment (including individual wells.)

3. Information, Monitoring And Assessments. There is an urgent need to organize information so that it is readily available. In addition, we lack much baseline information about our water-related resources and about the impacts of pollution on fish and wildlife. Finally, compatibility issues must be addressed due to the growing number of data automation systems.

- Water Resources Trends Monitoring and Reporting.
- Data Automation and Integration.
- Hydrogeologic Atlas/Regional. Assessments/Sensitive Areas.
- Monitoring Contamination Effects on Various Populations.

4. Reduction Of Environmental Pollutants. Minnesota has made major strides in reduction of primary or traditional pollutants from point sources. However, water quality problems still exist in both surface and ground waters from nonpoint sources and toxics. Issues include products such as pesticides which are used on the land, pollutants transported in the air, and biotechnology which offers both threats and opportunities for water quality improvements. Sources must be reduced and cleanup methods must be found. Approaches must be holistic, so that we do not trade one problem for another.

- Toxic Pollutants.
- Other Potential Problems and Opportunities.

5. Managing The Use Of Land And Water. Future increases in population will lead to increased pressure on land and water. Threats include increased development pressure on shoreland and sensitive and unique areas, such as wetlands, steep areas and rural lands. Pressures for economic development and increased returns will also threaten agricultural land, urban land and forests. Recreational pressures on lakes and rivers will also increase. An integrated approach is needed to resolve and eliminate conflicts.

- Holistic Management of Land and Water
- Sustainable Development.
- Strengthen Integrated Management Capabilities.

6. Communication And Education. Citizens, local governments, and others need to understand how they can obtain information or provide information to the state. Training is also needed to assure a broad understanding and provide needed skills. Issues, programs, and research results must be communicated with a view toward total environmental effects.

- Develop and Implement a Communication and Education Plan.
- Training About Range of Water Issues and Programs.
- Refining the State's Public Participation Process.

Priority Area 1
Water Supply Protection

Ample supplies of high quality waters are, and will continue to be, important to Minnesota for domestic, recreational, commerical, industrial, agricultural, and fish and wildlife uses. Future threats to these supplies can be anticipated from droughts, demands from other less water-rich regions, contamination, over use, and population growth. Possible impacts from global warming must also be considered. Actions to deal with these threats are needed to ensure our supplies.

ISSUE: Well Protection

Statewide, 75 percent of all Minnesotans receive their drinking water from wells. In addition, 93 percent of the state's municipal water supplies use wells, and wells are also important to irrigation and other commerical/industrial uses. Clearly, protecting wells, and the ground waters that feed them, is of vital importance to the state.

To protect wells we must: 1. contruct and maintain them properly, 2. seal them when they are no longer in use or pose pollution problems, 3. protect the wellhead area, that is the surface and subsurface areas that supply water to the well, from contamination, and 4. monitor the quality of the water in the wells.

The requirements for well construction and sealing were strengthened through the Ground Water Protection Act of 1989, and some moneys for well sealing were made available. However, additional efforts are necessary to deal with the estimated 1,500,000 abandoned wells in the state. Finally, the number of public (17,000) and private wells in the state make both enforcement, wellhead protection and monitoring difficult.

Ten-Year Objectives: To have effective Well Management and Wellhead Protection Programs for the state such that: 1. wells are constructed in accordance with well code requirements; 2. newly abandoned wells are sealed on a routine bases; 3. existing priority abandoned wells are sealed; and, 4. wellhead protection controls are in place for existing municipal and all new community wells and are proceeding for all public wells, and guidance is in place for private well users.

Major Actions Required During The Decade

- Locate abandoned wells, establish priorities for sealing, and develop and implement methods and funding for sealing priority wells.
- Increase delegation of well program to local units of government and strengthen enforcement efforts.
- Implement a continuing education program for well industry.
- Conduct studies to support development of wellhead protection policies, including determining local governments' legal and financial needs and resources to implement controls and develop necessary responses.
- Develop guidelines for public wells for defining wellhead protection areas and preparing management plans, and generic guidelines for private wells.
- Coordinate federal and state control efforts in wellhead protection areas.
- Develop and institute monitoring options for private wells.
- Computerize well management and monitoring data systems.
- Monitoring to ensure program effectiveness.

ISSUE: Standards

Standards for water resources consist of water quality standards for surface water and ground water, drinking water standards, and health risks limits. These standards are used in our water resource protection programs, and provide the gage for judging whether the waters are suitable for their intended uses. They are used for health assessments and cleanup criteria, and to evaluate and develop best management practices and water resource protection requirements.

Standards must be routinely reevaluated and revised to reflect our growing knowledge of impacts of contaminants. Surface water standards are currently being revised to include procedures for standards development and actual standards for 75 parameters. The federal Clean Water Act requires reevaluation and revision of standards based on priorities identified by the Environmental Protection Agency. Future areas are expected to cover several aspects of toxics, as well as lake and wetland standards.

The Ground Water Protection Act of 1989 calls for Health Risk Limits to protect those who drink ground water. The limits apply to all ground water. The Act has a goal of preventing degradation, which must be factored into existing programs.

Drinking water standards apply to the state's 12,000 public water systems (which may consist of more than one well) and are required through the federal Safe Drinking Water Act. Amendments to the Act required testing for 83 parameters starting in June of 1989.

Twenty-five more will be added every three years beginning in 1991. While providing increased protection for those people on public water systems, the costs of monitoring is high and will continue to be of concern.

Ten-Year Objective: To develop, implement, and update water quality standards to address toxics; and to implement the Ground Water Protection Act of 1989 requirements for incorporating the degradation prevention goal into water quality regulations and developing Health Risk Limits.

Major Actions Required During The Decade

- Develop standards for toxic pollutants, including pollutants in sediment, to limit pollutants to those levels shown to be least harmful. Standards must be established for air toxics as well as surface and ground water quality. Cleanup goals are also needed.
- Enact procedures for developing effluent standards and incorporating toxics into permits.
- Adopt biological criteria to evaluate overall environmental health, and water quality standards to protect wildlife in those situations where wildlife, or their habitat or food sources, are more sensitive than man.
- Adopt lake standards and water quality standards to protect wetlands.
- Develop Health Risk Limits.
- Revise existing rules to incorporate the requirements and degradation prevention goal of the Ground Water Protection Act of 1989.
- Expand and integrate systems for monitoring for compliance with standards.
- Reevaluate and revise standards on routine basis.

ISSUE: Water Availability

Minnesota has long been viewed as a water-rich state, but situations, such as the drought of 1988 and contamination problems, bring new awareness to this view. Because of the importance of water to so much of Minnesota's economic base - agriculture, forestry, mining, industry, and tourism - water availability and management will continue to be a critical concern for the 1990's.

Ground water and surface water are both important and interrelated. Some Minnesotans have lost their water supplies due to contaminated wells, others to drought. Pumping ground water for activities such as irrigation has depleted stream flows in some areas, reducing recreational use and adversely affecting fish and wildlife habitat. Better statewide quantitative information about ground water supplies is needed to address these issues.

The state regulates the amount of water used for commercial, industrial, municipal, agricultural and other purposes. Still, water appropriations have occassionally exceeded the amount of water available. With increasing water withdrawals in many parts of the state, potential out-of-state diversion, and the possibility of seasonal or long-term drought conditions, this problem could expand rapidly.

Effective mechanisms, such as water allocation planning, water emergency planning and conservation, must be developed to balance water supplies and diverse demands. In addition, the complexity of the issues calls for coordinated action at both the state and local level.

Ten-Year Objectives: To maintain surface and ground water supplies that meet long-term requirements for basic necessity, environmental protection, and economic vitality.

Major Actions Required During The Decade

- Develop state water allocation policies to address future interbasen transfers and out-of state water diversions.
- Accelerate the determination of ordinary-high-water levels for lakes and protected water flow levels on rivers and streams.
- Develop plans and programs for water conservation and drought and emergency preparedness.
- Develop aquifer capability estimates to establish optimum use limits.
- Improve computer-based information systems for surface and ground water hydrologic information, expand the observation well network, and increase collection of hydrogeologic information, including preparation of hydrogeologic altases.

ISSUE: Global Warming

Predictions of human-induced climate change within the next decade are becoming increasingly credible. Climatologists predict a 3 to 9 degree F rise in average temperatures over the next 60 years, unless worldwide efforts to reduce greenhouse gas emissions are undertaken. Even with such efforts, past emissions are expected to result in warming over the next few decades. These small climate changes can lead to serious problems in water supply, flood control and other resource planning areas that

could negatively impact Minnesota's water resources and quality of life.

Ten-Year Objective: To minimize the negative effects on Minnesota's water resources and the potentially serious economic and environmental problems that may result from global warming.

Major Actions Required During The Decade

- Establish Environmental Compact of the States to deal with interstate issues.
- Track national and international literature and trends, and identify system sensitivities and possible impacts on Minnesota.
- Foster research on possible Minnesota scenarios and adaptative measures.
- Foster prevention, particularly energy and water resource conservation and wetland preservation, both within Minnesota and worldwide.

Research Needs

1. Identification Of Contaminated Wells. Techniques are needed for locating contaminated and abandoned wells, for developing priorities for sealing abandoned wells, and for determining recharge rates of multi-aquifer wells.

2. Sustainability Of The Ground Water System. Research is needed to address the capacity of the ground water system to meet future demands. This research could include such topics as location of aquifers, storage capacity, water availability, optimum withdrawal conditions, improved model development, better definition of sustainable yield, vertical hydraulic conductivity and recharge rates of surficial and deeper aquifers, and mitigation of existing contamination and yield problems.

3. Quantity/Conservation. Research on water demand and conservation are needed, including return water to aquifers, artifical recharge and secondary use. Impacts of seasonal and climatic fluctuations on ground water levels and availability should also be researched and correlated with the use of ground water.

4. Sensitivity. Geologic sensitivity should be evaluated, including correlations between land use, sensitivity and quality, and susceptibility to contamination. New techniques for developing ground water sensitivity maps are needed, focusing on protection of confined aquifers.

5. Wellhead Protection. Research is needed on existing or new models to help predict impacts of contamination sources on ground water recharge zones.

6. Defining Ground Water-Surface Water Interactions. Interconnections between ground water and surface water are ill defined and can result in water quality impacts. Research is needed to locate interconnections, to develop new ways to accurately define the flux of ground water and surface water interaction particularly in areas of potential conflict, and to develop predictions and remedial actions for case-study problem lakes.

7. Hydrogeologic Data Base. There is an ongoing need to better understand the state's complex groundwater systems in bedrock and glacial aquifers. Specifically we must continue a) the county atlas program, b) the regional assessments program, c) regional aquifer studies, and d) groundwater data base development through the systems. Comprehensive interagency county level studies should be urged.

8. Water Policy. Several areas of water policy should be researched, including Indian treaty rights regarding land and water issues, water use policy, and the legal, economic, policy and institutional aspects of interbasin transfers.

9. Extreme Events. Research is needed on the hydrology of extreme events, including floods and droughts, hydrologic forecasting, and drought management.

10. Research To Support Development Of Standards And Criteria. Standards and criteria for specific pollutants are important tools for environmental regulators. Research to support these efforts is critical. Examples of areas where research is needed include examination of the relationship between pathogens and recreation, examining the effect of high sulfate concentrations in water on wild rice production, the development of biological critieria using fish and benthic macroinvertebrates to more directly assess the biologic integrity of Minnesota's surface waters, development of water quality criteria for sediments, and the synergistic effects posed by combination of pollutants such as pesticides in drinking water on human health.

Research is also needed on the synergistic effects of a combination of pollutants, including pesticides, in drinking water on human health.

Priority Area 2
Infrastructure

Minnesota's water resources infrastructure, including water and wastewater treatment systems and dams, has current needs which will increase in the future as these systems age. At the same time, government funds for infrastructure improvements are decreasing, and were never intended for replacement, repair or maintenance of previously funded systems. The ability to pay for system improvements will be of even greated concern in small communities and as the proportion of those on fixed incomes increases. Increased pressure from lakeshore and exurban development must also be addressed.

ISSUE: Water Supply Systems

Drinking water is supplied to Minnesotan's through public water supply systems and private systems (primarily wells). Public systems include municipal, institutional and apartment complex systems that serve residential populations, as well as schools, health care facilities, motels, parks and gas stations that serve nonresidential populations. There are more than 17,000 such facilities in the state, and an estimated 300,000 to 500,000 private wells.

A recent survey of municipal suppliers, to which approximately 50% responded, identified $43.8 million in needs. These included funds to remedy health-related problems, develop new supplies and upgrade or renovate facilities. These cost, however, reflect only the costs for responding municipalities to meet existing standards, and do not include costs for distribution systems or costs necessary for public water supply systems to comply with the federal Safe Drinking Water Act Amendments of 1986. New requirements include filtration for surface water sources and disinfection for all sources, except those receiving variances.

A large portion of the capital costs required to upgrade treatment facilities will be placed on small public water systems. Since these small systems serve a small number of people, the per capita costs of compling with new treatment requirements may be extremely high. In addition, a large portion of the infrastructure elements of the state's water supply systems have been in service between 20 and 50 years.

Aside from several small grant programs and Super Fund situations, cities must pay all the costs associated with financing their water systems. The same is true for other public water supply systems and private systems. As the impacts of decades of inappropriate waste and toxics materials management begin to show up in our water supplies, we must deal with processes for water treatment and procedures for financing improvements.

Ten-Year Objective: To ensure that Public Water Supply infrastructure needs are met for compliance with the federal Safe Drinking Water Act, and that options and guidelines for private systems are developed.

Major Actions Required During The Decade

- Inventory Public Water Supply compliance and future replacement needs and develop cost estimates.
- Develop and implement financing mechanisms for construction, maintenance and monitoring for both public and private systems.
- Evaluate treatment techniques for both public and private systems and assist the public in making treatment decisions.

ISSUE: Wastewater Treatment Systems

Approximately 75% of Minnesotan's receive wastewater treatment through centralized treatment systems ranging in size from the Metropolitan Wastewater Treatment Plant in St. Paul to group systems serving several dwellings. The past 20 years have seen continuous growth in the construction of wastewater treatment plants, primarily due to passage of the federal Clean Water Act in 1972 which encouraged the construction of wastewater treatment facilities by providing 75% grants. Since 1967, more than $1 billion in state and federal dollars has been granted to municipalities for wastewater treatment plant construction.

Construction of wastewater treatment facilities over the past two decades has brought significant improvements to Minnesota's lakes and streams and dramatically decreased violations of water quality standards. However, over 100 Minnesota communities are still waiting for first-time financial assistance to construct new or improved wastewater treatment facilities. In addition, the facilities already constructed must be maintained, operated and ultimately renovated when they reach their estimated life span of 20 years. Expansion of existing facilities will also be necessary as various areas of the state experience

economic growth and economic development.

Since 1985 the amount and percentage of federal funds available to communities has decreased. With the federal Construction Grants Program ending in 1990, more burden is being placed on the state grants program to provide enough funds to maintain Minnesota's high standard of water quality. The State Independent Grants Program includes state independent grants, corrective action grants, reimbursement grants and funds for administering these programs. Funds for the State Independent Grants Program are very critical for communities to be able to afford to construct wastewater treatment facilities in the future.

To take the place of the federal Construction Grants Program, a revolving loan fund is being funded with state and federal dollars to provide continuing funding for remaining improvements. The state must continue to provide matching funds to receive federal funds to capitalize the Water Pollution Control Revolving Fund. This loan approach will, however, place far greater financial responsibilities on local government for development of future treatment facilities.

Remaining needs for new facilities are primarily in communities with very small populations, and lower ability to pay. Innovative solutions to financing and solving wastewater treatment problems must be found so that these communities receive as much support as the larger communities in achieving treatment objectives. An example of an innovative program is the Individual On-Site Treatment Systems Grants Program which assists upgrading failed on-site wastewater treatment systems. This program was developed as a response to communities with failing on-site systems, where it is neither necessary or cost-effective to construct a collection and centralized treatment system. The impacts of these individual systems must, however, be scrutinized to ensure that they do not become tomorrow's problems. Privatization of municipal facilities is another approach to solving wastewater treatment problems of small communities.

Finally, the impacts of storm water systems on water quality must be further evaluated and systems and requirements upgraded as necessary. The separation of combined sewers in Minneapolis, St. Paul and South St. Paul has been proceeding since 1985, and is projected to be finished in 1995. This separation will eliminate the overflow of raw sewage into the Mississippi which now occurs with heavy rain or snowmelt. The impacts of discharging untreated stormwater and snowmelt are not well understood at this point and must be further evaluated. Further upgrades may be necessary in the future to maintain and improve the water quality in the Mississippi as it flows out of the Twin Cities.

Ten-Year Objective: To ensure that wastewater treatment facilities meet and continue to meet the health and environmental protection needs of the state.

Major Actions Required During The Decade

- Continue funding and support of the wastewater treatment independent state grant program and revolving loan fund.
- Develop and enact alternative funding systems addressing particularly small systems and low income populations.
- Develop innovative and inexpensive alternative treatment systems for small communities and individuals.
- Enact requirements for a wastewater treatment facility replacement fund within each municipality for financing future infrastructure improvements.
- Continue the Combined Sewer Overflow Abatement Program, and at the same time evaluate the impacts of the discharge of stormwater on the Mississippi.

Research Needs

1. Water Treatment Techniques. Effective, inexpensive techniques are needed for full scale water treatment plants plus point of use and point of entry treatment systems in situations where there is no alternative to the use of a contaminated water supply.

2. Grout Types. Development of new techniques and evaluation of existing techniques is needed with regard to effectiveness and permeability of grouting materials.

3. Structural Integrity. Evaluation of the integrity of engineering structures such as underground storage tanks and water distribution systems is needed.

ISSUE: Solid Waste Disposal Facilities

Protection of water resources has been a driving force shaping solid waste management policy and programs in Minnesota. Twenty-five years ago, the norm was disposal of all solid waste in town dumps where open burning occurred more often than burial. Concerns of air pollution and unsanitary conditions led to closure of these dumps and the transition to landfills which were constructed and operated to minimize the air pollution and unsanitary problems. However, ground water monitoring showed that the landfills were generating leachate which contaminated ground water. These landfills are now being upgraded and replaced with engineered features to protect ground water including liners under the waste and leachate collection systems. Problems with ground water contamination and

costs of up-to-date landfills have increased the attractiveness of alternative technologies like waste-to-energy incinerators.

This evolutionary scenario demonstrates the interrelationship between environmental media, and re-emphasizes the need for holistic solutions. The protection of air and surface water quality can led to ground water contamination, and now protection of ground water can lead back to potential air quality impacts. Leachate collection, too, protects ground water but may impact surface water quality by overloading wastewater treatment plants with pollutants they were never built to handle. All these concerns must be weighed and balanced as we move forward in solid waste management.

Money is a resource central to this issue. In the past, most facilities were privately owned. The increasing cost and needed rigor of environmental controls has discouraged many private landfill operators, leaving large corporations and local governments in charge. Defaults and abdication of responsibility by facility owners have demonstrated that it is too easy to defer costs and not prepare for future needs. The revised solid waste rules make this harder because they compel current accumulation of funds to cover responsibilities in the future, when there is no more income because the site is closed. These fund accumulations are based on projections of the long term (up to twenty years post-closure) care costs for each ton of waste buried, and apply to all landfills statewide.

To cover costs of landfills which closed without this financial asssurance, as well as costs incurred after the twenty-year period, the Metropolitan Landfill Contingency Action Fund (MLCAF) was established in 1984, for landfills in the seven-county metropolitan area. A similar fund for landfills in the rest of Minnesota was established in the Waste Act amendments of 1989.

While not without problems, these funds provide a vital first step in seeing that environmental concerns are met with actions needed to prevent or remediate impacts which may occur. The state Superfund is currently being used to remediate environmental problems at some landfills. However, funding for Superfund is a critical issue.

Alternative technologies, too, need good long-term planning. For incinerators, air quality standards must be met, and ash and other residue disposed in an environmentally sound way. Incineration reduces the waste in volume significantly, but 15-20% of the volume of the incoming waste remains to be disposed. Alternate disposal facilities must be found, to cover "down-time" at the incinerator and to properly handle the ash and other residuals produced. Financial planning is needed, too, with an eye to maintainance and replacement costs. Similar concerns apply to other alternatives such as compost and recycling facilities. At this time, no state funds or guidelines have been developed which apply to financial assurance for incinerators or other alternative facilities.

Ten-Year Objectives: To to manage solid waste in ways that minimize the environmental impacts which may occur from it's disposal. Waste reduction and recycling are major components of this effort.

Major Actions Required During The Decade:

- Production of less waste is critical. Alternate products, packaging, and practices must be encouraged.
- Reduction of the waste stream through encouragement of the "reuse, reduce, recycle" philosophy. Efforts just begun as a result of the SCORE initatives must be continued and improved throughout the decade.
- Detoxification of the solid waste stream must also continue. Household hazardous waste collections and encouragement of use of alternate, less toxic products are important to this effort.
- Those disposal facilities which remain must be carefully monitored to ensure their integrity.
- Financial assurance is needed for waste facilities, to cover costs incurred in the long-term care of the waste once disposed and for incinerator replacement and maintenance. Financial reserves need to be planned and provided through appropriate mechanisms and cooperation at all levels of government.
- Continued funding for Superfund.

Research Needs:

Landfill gases: Methane and other volatile organic compounds typically are components of the gases generated by landfills. Research is needed into effective ways to manage and eventually reuse these gases.

Leachate treatment: The current practice for leachate treatment is to discharge the leachate to a wastewater treatment plant. Leachate is a highly concentrated waste, and may tend to overload treatment plants. The pollutants in teachate, too, are different than normal wastewater components and may not receive the treatment necessary in a typical wastewater plant before discharge to the environment. The waste sludges produced may also become more of a problem when leachate is added to the wastewater stream. Research is needed into ways to more effectively handle leachate in wastewater treatment plants, and in developing alternate technologies for leachate treatment.

Priority Area 3
Information, Monitoring, And Assessment

There is an urgent need to organize information so it is readily available, fits with related information to provide a total picture, and can demonstrate trends in the environment. Agencies collect vast amounts of information for specific purposes and much is not readily available to other users.

We lack much baseline information about our water-related resources and about the impacts of pollution on species such as fish and wildlife. Needed baseline and trend information can come from accelerated collection of missing data and from organizing the present data collection system with a view toward obtaining a complete picture.

Local government is using state water-related information and also collecting its own data. To continue the partnership between state and local government, information needs to be easily shared.

There is an explosion of computer software for collecting and compiling data. There are already several Geologic Information Systems in use making interchange of information time consuming and costly. The EQB needs to take the lead in assuring state systems are readily compatible. Local government also needs to use compatible systems.

ISSUE: Data Automation And Integration

Geographic Information Systems are automated systems that can provide maps integrating information on land and water that are useful in understanding relationships in the environment. A user can analyze basic information on rivers and lake characteristics, wells, and ground and surface water quality in the context of soils, land use, topography, and geology information.

In the 1970s, the state developed the Geographic Information System MLMIS 40. This system provides information based on 40 acre parcels. Today there is a demand for data in much greater detail. Development of other Geographic Information Systems underway around the state prevent easy exchange of data. If other agencies or governmental units cannot readily have access to data, time and money will be wasted compiling data again for other systems.

Automation of data has come a long way in the state, however, important data is not computerized, is missing, or is out-of-date. Integration of data from multiple sources is a key to effective analysis of water rersources problems. Data collected for a particular program can be difficult to obtain for other uses. Even if data are compatible, access to multiple data sources is difficult unless it is integrated onto one system.

Ten-Year Objective: To establish a detailed Geographic Information System housed at LMIC that is readily accessible for other users.

Users will be able to obtain access to data on surface water, ground water, and related land resources from multiple sources that are automated and integrated onto one system.

Major Actions Required During The Decade

- The Natural Resources Geographic Information System (NRGIS) proposes standards for data classification, automation in geographic information system format, and data interchange.
- The Environmental Quality Board ensures that compatibility standards for data collection and automation are developed and followed.
- Agencies developing individual layers of information provide access through the Land Management Information Center.
- Develop ground water data integration and retrieval system.
- Develop an integrated system for retrieving stream, lake, and related watershed information.
- Expand the System for Water Information Management (SWIM) as a means for promoting integration of ground water, surface water, and related land resources data.
- Water related data is integrated and made available to users through the Land Management Information Center.

ISSUE: Water Resources Trends Monitoring And Reporting

Resource monitoring is usually done for a particular purpose and not to provide a broad understanding of the environment and changes over time. Our limited historic data usually were not gathered or compiled to evaluate resource trends. Lack of a coordinated monitoring strategy leads to gaps in information and hinders the transfer of information. In many places, baseline resource information is not available. This provides a poor background for analyzing impacts of current pollution problems.

Local governments preparing local water management plans look to the state and federal government for information. Many have or are initiating plans to collect specific water-related information. A comprehensive approach is needed that ensures baseline resource information and trend information are collected and analyzed.

Ten-Year Objective: To institute a system that provides adequate baseline resource information and trend development capability.

Major Actions Required During The Decade

- EQB, working with state, federal, local governments, and researchers, coordinates the development of a state water monitoring strategy that is periodically updated.
- Multiple and related uses are built into the collection and automation of data to provide needed baseline and trend information.
- Continued development and enhancement of surface and ground water models for water protection and management.
- Improved understanding regarding the affects of climate, the age of water, the interconnection between ground and surface water, and between water and land uses.

ISSUE: Hydrogeologic Atlas/Regional Assessments/Sensitive Areas

Understanding the ground water system is much more difficult than understanding the surface water system. Due to cost and complexity we have tremendous gaps in our basic knowledge about this vital source of water most people rely on for their water uses. We know that in some places ground water is more easily contaminated from land uses than in other places. We are seeing some of the results of past actions reflected in ground water quality.

There several activities underway to provide information about the ground water system. These include detailed county hydrologic atlases, regional assessments, sensitivity studies, and hydrogeologic modeling. Those regulating activities, whether state or local, need access to good information so they can direct their actions toward protecting the resource.

Ten-Year Objective: To develop a good understanding of the ground water systems and how to prevent contamination.

Major Actions During The Decade

- Complete hydrogeologic studies for the buried drift aquifers in western Minnesota that are the principal sources of supply for the communities. (This includes areas around Crookston, Breckenridge, Canby, and possibly Worthington, Marshall, Granite Falls, and Redwood Falls.)
- Complete County Geologic Atlas studies for a third of the state.
- Complete regional hydrogeologic assessments for the Anoka sand plain, the St. Cloud-Alexandria area, the Iron Range counties, and the Moorhead to East Grand Forks area.
- Ground Water Assessments underway in South Central and North Central Minnesota are used in state and local planning.
- Models are developed for assessing ground water sensitivity. Depth-to-water information must be collected across the state to support these models.
- State and local government work together to achieve appropriate controls for ground water protection.

ISSUE: Monitoring Contamination Effects On Various Populations

Minnesota fish are not presently tested for a number of toxic chemicals which are known to contaminate fish tissue. Yet we know there are high-risk human populations in Minnesota which consume large quantities of sport-caught fish. In some cases these populations take fish from waters where there are fish consumption advisories. These populations include the Fond du Lac reservation and the Hmong.

In addition, numerous species of wildlife eat fish which are contaminated. The nature and degree of impact on wildlife is unknown. The state has sampled fish in less than 300 of the more than 15,000 lakes. Since testing of all lakes and streams is not feasible, models are needed to predict problem hot spots.

Ten-Year Objectives: To better understand and assist populations affected by contaminated fish and wildlife, and understand the extent of fish and wildlife contamination.

Major Actions Required During The Decade

- Expand the sampling of fish for contaminants.
- Expand the sampling of wildlife for contaminants.
- Develop models to predict problem hot spots.
- Determine the nature and degree of impacts on affected populations.

Research Needs

1. Integrated Data Base Development Determine the feasibility of assembling hydrogeologic data (well logs, springs, water quality, etc) into an assessable

user-friendly system that combines water quality and water availability data. In order to manipulate data efficiently, an accessible, transferable, and integrated data base must be created within a system that is compatible with the existing data sources. Information systems that should be integrated and be part of this data base should include the SARA Title 3 entries, data bases for SPA, MDH, DMA, MGS, Federal Agencies, etc.

Procedures are needed to assure and monitor the consistency and quality of the information. Mechanisms for ongoing quality control of ground water data (e.g. field verification, hydrogeologic interpretation, geographic information system) are also needed.

2. Management and Accessibility of Locally-Collected Water Information Investigate and establish a system for collecting and disbursing information that ensures compatibility between and among units of government.

3. Contaminated Site Data Evaluation Data from environmental audits and contaminated sites is extensive and could greatly expand the current data base. This data should be analyzed and correlated with information about the hydrogeology.

4. Geographic Information System The statewide GIS system should be enhanced and research on Using GIS in watershed managment should be pursued. Pilot projects are needed using soils, ground water data, land use, topography, and other water related data entered onto a Geographic Information System and used for improving watershed management.

5. Technology Transfer A number of pilot studies need to be carried out at different scales (regional sensitivity mapping, delineation of wellhead protection areas) and in different geohydrologic and/or ecoregion of the state. These projects will serve as field demonstrations for technology transfer, as pilot studies to develop general methodologies, and as a means to verify and validate the complex simulation models and the simpler application models.

6. Climate Change Climatic change effects such as decreased precipitation/increased temperature and decreases in number of seasonal wetlands and length of time wet must be evaluated.

7. Ground Water Age-Dating Age-dating of ground waters should be undertaken on a statewide basis. This is especially important to do while the "window of opportunity" provided by nuclear testing of recent decades exists (before the radiation reverts to background levels). Improved methods for age-dating that involves various isotopes and contamiants, should be pursued.

8. Hydrogeologic Investigations Regional aquifer or county studies are needed in areas of growing ground water use or areas of existing or potential conflicts regarding ground water use, including 1) Twin Cities area, and 2) Western tier of counties in Minnesota. In addition, guidelines are needed for hydrogeologic investigations in Minnesota's karst settings.

9. Aquifer Characteristics Research is needed on methods to better delineate buried drift aquifers, including innovative research involving surface geophysics, downhole geophysics and existing information. Research is also needed on depth to water table statewide, vertical hydraulic conductivity, and recharge rates not only for surficial aquifers but also for deeper aquifers like the Mount Simon.

10. Sampling Technique Sampling techniques are needed to improve ease of sampling. Research is needed to develop surrogate tests, and other innovative techniques for various materials, including organics, to provide good, inexpensive screening of waters. Efforts are also needed to develop cost-effective and innovative methods to monitor lake, stream, and ground water systems from a quantity standpoint for small watersheds.

11. Quality Control/Quality Assurance Quality control should be evaluated in present monitoring programs. Better quality assessment and quality control procedures for monitoring programs should be developed.

12. Monitoring Efforts Efficient and effective monitoring programs need to designed at state, regional, site specific scales. In addition, Lake monitoring programs should be promoted, and natural resource monitoring for soil loss and water quality should be improved.

13. Trend Analysis There is a need for a broader ambient network than currently exists in order to understand trends in quantity and quality of ground water on a statewide (aquifer-wide) basis. Trends should be assessed in sensitive systems (e.g., aquifers, wells) for critical, health-related contaminants.

14. Fish and Wildlife Impacts Impacts of bioaccumulative pollutants, including mercury and PCB's, on fish-eating wildlife should be determined. In addition, the number of toxic chemicals fish are analyzed for should be expanded and models to predict lakes and streams with contaminated fish should be developed. Cooperative fish tissue monitoring should be pursued, as should Analysis of existing data bases by inter-agency networks to improve the understanding of factors controlling fish production.

Priority Area 4
Reduction Of Environmental Pollutants

Minnesota has made major strides in reduction of primary or traditional pollutants from point sources. However, water quality problems still exist in both surface and ground waters from nonpoint sources and toxics. Issues include products such as pesticides which are used on the land, pollutants released and transported in the air, and biotechnology which offers both threats and opportunities for water quality improvements. Sources must be reduced and cleanup methods must be found. Approaches must be holistic, so that we do not trade one problem for another.

The environmental degradation now being suffered in Northern Europe shows how human activities in populated areas can affect remote areas far away. Acidic deposition, in the form of acid precipitation and acidic dryfall, has virtually wiped out fish populations in many Northern European lakes. This pollution came from industrial smokestacks hundreds of miles away, and was carried north by the wind. The acidic components can be scrubbed out of the flue gases to a large degree, but the sludge that is formed in the scrubbers can seriously contaminate surface or ground water if not aggressively contained. For this reason, it is imperative that our environmental "fixes" be holistic in nature. We must not spare one part of the environment at the expense of another.

ISSUE: Toxic Pollutants

The increasing level of environmental pollution is an alarming trend. Small quantities of toxic pollutants are now found even in remote areas and formerly pristine lakes. Some discharges of pollutants are obvious, like the wastewater discharge into streams and lakes. Spills and leaks also are easily recognized as a source of pollutants, and cleanup back to pre-impacted conditions is not always possible.

Less obvious are the pollutants which result from nonpoint sources. An example of this type of pollution is that which results from the land application of pesticides, where surface waters may be impacted by polluted runoff or ground water may be impacted by pesticides which leach from the fields and migrate downward.

Even more subtle are those pollutants which volatilize from a number of human activities and are carried by the winds to be deposited in remote areas by rain or dryfall.

Ten-Year Objective: To minimize the impacts of toxic environmental pollution. This may be furthered by a number of means, including gaining a better understanding of the effects of small quantities of pollutants, developing and enforcing numeric criteria for toxic pollutants, and control of pollutant sources to reduce releases as necessary for environmental protection. The development and implementation of effective plans are a critical part of this.

Major Actions Required During The Decade

- *Evaluation of Impacts Resulting from Toxic Pollutants* - Pollutants have been detected throughout Minnesota in surface and ground water, precipitation and wildlife. In the next ten years we must improve our understanding of the impacts on human health and the environment which may result from this pollution. This understanding is critical to the establishment of numeric criteria for toxic pollutants which will minimize the negative impacts.
- *Control of Acid (Toxic) Precipitation* - Although Minnesota has the first and still toughest acid rain standard in the nation, impacts on vulerable Minnesota lakes continue to occur. Research now indicates that more than 90% of the emissions causing acid rain in Minnesota come from outside the state. Already, acid precipitation has decimated lakes in the northeastern United States and Canada, showing that this problem is global in nature. Our challenge in the next ten years will be to continue to work with other states in controlling acid and toxic emissions, in a forum such as the recently proposed Environmental Compact of the States.
- *Control of Facilities Which May Discharge Toxic Pollutants* - Minnesota has made major strides in reduction of primary or traditional pollutants for point sources. Expansion of our state's economy, however, means that more waste will be generated and must be dealt with. Regulation of facilities must reflect appropriate environmental goals and incorporate the numeric criteria developed for toxic pollutants.

  Solid waste can be reduced through reuse, reduction and recycling, but these technologies currently seem more difficult and costly to consumers than disposal. One major challenge in the coming decade will be to implement the 1989 recycling legislation and change the current mindset through education, market development, regulation and incentives.

Wastewater generation will also increase, requiring more funding for construction, upgrade and monitoring of wastewater treatment facilities. Air quality standards will need to cover toxic pollutants as well, and must be rigorously enforced as the economy grows.

Storage of products such as gasoline and agricultural chemicals will also increasingly affect the environment, and must be effectively managed. Cleanup at these sites will also be a major effort over the decade, with as many as 10,000 cleanups anticipated at petroleum tank sites.

- *Management of Pesticides* - The use of pesticides has become the standard practice in modern agriculture, helping to guarantee that major infestations of weeds or insects do not significantly affect crop yields. Valuable as this is, the land application of these chemicals has also increased the environmental pollutant load.

  Monitoring for pesticides must continue and increase in the next decade, as must research into pesticide breakdown and migration. We must also evaluate impacts of pesticides and pesticide breakdown products on surface and ground water, and develop cause and effect relationships.

  In the next two years the Minnesota Department of Agriculture will develop the state's overall pesticide management plan, as well as specific plans for individual pesticides. The development and subsequent implementation of these plans will coordinate public and private efforts to minimize effects on water quality.

ISSUE: Other Potential Problems And Opportunities

There are both old and new issues which do not fit into the conventional pollution management techniques. Among them are the old and yet very current problem of nitrate contamination, the reduction of the toxicity of the waste stream produced by human activities, public information on toxic releases in their area, and biotechnology. These and other emerging issues will ensure that environmentalists and regulators are challenged in the coming decade.

Ten-Year Objective: To address the challenges which current and new issues present in ways that are both holistic and far-sighted.

Major Actions Requires During The Decade

- *Management of Nonpoint Sources of Pollution* - Nonpoint sources of pollution account for significant environmental pollution in Minnesota. Since the sources are so numerous and diffuse, effective management can only be accomplished through an approach which includes education, technical assistance, regulatory incentives and a strong committment from all levels of government from local through federal. In the next ten years we will need to develop a comprehensive and coordinated nonpoint source and water quality management program which builds on the start we have made to date through programs like the Comprehensive Local Water Planning efforts being undertaken by local governments and the Clean Water Partnership.
- *Management of Nitrates in the Environment* - Ground water contamination from nitrate is widespread in Minnesota, especially in areas most sensitive to ground water contamination. Nitrate may cause some human health problems, especially in young infants, and is also indicative of other potential problems like the presence of pathogenic microorganisms. The presence of nitrate and other nutrients in surface water leads to growth of algae and other undesired aquatic plants, and affects not only aesthetics but also fish and wildlife populations.

  The sources of nitrates are ubiquitous, ranging from wastewater to manure to commercial fertilizer. To begin to get hold of this problem, the Minnesota Department of Agriculture and the Pollution Control Agency will be developing a nitrogen management plan in the next two years. Implementation of this plan in the remainder of the coming decade should bring about more effective nitrogen management practices, and lessen the environmental impacts.
- *Reducing Generation and Disposal of Toxics* - Since human activities frequently lead to waste and result in pollution, we must do what we can to reduce the toxicity of the waste which we generate. Efforts must include investigating and promoting alternatives to polluting products, such as CFC's.

  The Minnesota Office of Waste Management is responsible for developing the Hazardous Waste Capacity Assurance Plan, which is a 20-year plan for waste reduction and management. The goal of this plan is to determine waste management capacity shortfalls and use aggressive waste minimization and new facility development to address the shortfalls. Aggressive minimization efforts include the Minnesota Technical Assistance Program and waste reduction grants.

  Efforts at consumer education and collection of household hazardous waste aim to reduce the toxicity of domestic wastes. Also, the public awareness of the release of pollutants by industry is growing, thanks to the reporting and inventory required under current Superfund legislation (right-to-know). These efforts must continue and increase in the next ten years.

- *Community Right-to-Know* - The community right-to-know provisions of the federal Superfund Amendments and Reauthorization Act of 1986 have resulted in a wealth of information being available to citizens and decision-makers in all state programs. The challenge will be the management and utilization of this data. The data available through this program will provide insight and assist in priority and goal setting in a number of areas, including source evaluation and reduction, health risk assessment and emergency response planning.
- *Biotechnology* - Biotechnology, including such activities as cloning, innoculation with previously isolated and reared bacteria, and genetic engineering, is predicted to result in changes to society and industry as great as those caused by the industrial revolution. These technologies could benefit water resources in such ways as developing microorganisms designed to clean up hazardous wastes or engineering pest resistance into crops to eliminate the need for pesticides.

  Negative impacts are also possible, like competition between released and native organisms and inadvertant development of "superweeds". Starting now, and continuing through the coming decade, we must see that the development and use of biotechnology in the state will be orderly, safe and both environmentally and economically sound.

Research Needs

1. Understanding The Hydrologic Setting. The hydrologic setting must be clearly understood before pollutants can be effectively managed. Ground water settings, for example, are complex, multi-layered, and not directly observable without expensive drilling. There are also many unknowns about the movement and mechanics of surface water in any given setting. For both suface and ground water, trends in contaminant levels must be determined. Research is needed in the following areas:

- *Ground Water Movement* - Understanding ground water movement is necessary to predict contaminant movement. More research is needed to develop techniques for determining ground water flow patterns. Some techniques which show promise are age-dating, use of tracers, temperature profiling, and surface geophysics. In addition, testing is needed to determine the vertical recharge rates to aquifers.
- *Ground Water Conditions* - Understanding ground water conditions which affect the persistence of contaminants is also necessary. For example, there are may aquifers throughout the state that may have the right conditions for denitrification (the conversion of nitrate to nitrogen gas) to occur, but we do not now have sufficient knowlege of these conditions to predict this. Soil microbes also serve a vital, and currently not well understood, role in the treatment of contaminants. The presence of oxygen in the ground water can affect both denitification and microbe populations, and more information is needed on this as well.
- *Contaminant Movement to Surface Water* - Land use activities vary widely throughout Minnesota, and so do the impacts on surface water quality which result. Much remains to be learned about the movement of contaminants into surface water bodies. For example, the sedimentation rate for lakes in different ecoregions can be determined through sediment core dating. This information will be a valuable management tool in maintaining lake quality.
- *Receiving Water Sensitivity* - Sensitivity of receiving waters for various pollutants varies widely. Better knowledge of this factor will aid in setting appropriate discharge limits for specific pollutants and waters.
- *Ground Water/Surface Water Interactions* - More attention is being placed on the contribution of ground water to lakes and streams and the resulting water quality impacts. Additional work is needed to develop new ways to accurately define the flux of ground and surface waters, and the resulting pollutant flux.

2. Understanding and Managing Pollutant Movement. Not only must the flow of the water be understood, but the movement of pollutants in the environment is also a critical factor to consider. We must be able to accurately predict contaminant movement; detect contaminants where they occur; and then remove, treat or otherwise manage the contaminants so that critical resources are protected.

- *Contaminant Detection* - The development of new, low-cost methods for screening ground and surface water for contaminants would help researchers and regulators alike in prioritizing areas for further attention. Continued development of isotope tracing techniques is needed for various pollutant sources including nitrogen and radon.
- *Contaminant Transport* - More research is needed on ways to predict the path and fate of pollutants, so that we can effectively evaluate environmental impacts. This must include consideration of breakdown products, absorption (or leaching) characteristics and transport mechanisms such as macropore flow in soils, convection in surface water bodies, sediment dynamics, etc. Predictive models must be improved, calibrated and made more user-friendly to promote their use. The role of contaminant mixtures must also be assessed in these areas.
- *Contaminant Treatment* - Innovative treatment processes have been developed and are available for certain contaminants, but their application to remediation of contaminated soils and ground water

have not been demonstrated. Biodegradation of petroleum contaminants and chlorinated solvents are becoming more widely known, and show promise, but more research is needed here, too. A related and important research need is the development of economical and effective treatment technology for water supply treatment in situations where there is no alternative to the use a contaminated water supply source.

- *Contaminant Management* - The complicated nature and large scale of regional ground water contamination problems can overwhelm the normal remedial response measures. Research is needed to aid in reevaluation of our approaches on these types of problems in terms of resource management and protection, limitations on development and ultimate costs.

3. Evaluating Pollutant Sources and Finding Alternatives. Understanding and reducing pollutant sources is a vital component of the effort to reduce environmental pollutants. Prevention and treatment of contamination of ground water and soil environments will be the watchword here. Appropriate remedial technology is needed for managing pollutants that originate from defined point sources as well as diffuse sources.

- *Impacts of Specific Sources and Practices* - Minnesota has made major strides in reduction of pollutants from many point sources, but some still remain for which the environmental impacts can only be guessed at. Examples of potential pollution sources which have not been dealt with include scrapyards, salt storage facilities, road application of salt, stormwater retention basins, and animal waste treatment facilities.
- *Alternative Compounds or Practices* - In some cases, the use of alternative compounds or practices may lessen the environmental impacts. Waste reduction and immobilization or detoxification of toxic materials are important areas where more research is needed. Other alternative technologies would include such things as applying genetic engineering to treatment of contaminated water, waste water, etc.
- *Diffuse Sources* - Diffuse sources of contaminants such as on-site sewage disposal systems in suburban settings and urban use of pesticides and fertilizers also pose a challenge to assess and quantify. Problematic, too, is finding the sources of contaminants such as mercury and PCB's found in low levels in surface water bodies to which there is no known discharge. Research is needed to determine the sources and resulting impacts of these diffuse sources.
- *Better Cleanups* - The effectiveness of cleanup techniques must be assessed as well, and alternative technologies explored to find the most economic and environmentally sound method for treating each situation. An example of an area where more research is needed is in the decontamination of contaminated soils. Here, innovative and proven technology is needed to cleanse the soil back to acceptable pollution levels. This could be cost effective and would allow the site to again be used for contructive purposes in the future.

4. Management of Agricultural Chemicals. Nitrogen and Pesticides - Nitrogen and pesticides are used throughout Minnesota to sustain current agricultural production. The potential for surface and ground water contamination by these agricultural chemicals is high in many parts of Minnesota. Research is needed to refine exisitng practices and develop new practices that protect water quality while sustaining productivity and profitability, or Best Management Practices.

- *Application of Chemicals to Meet Site-Specific Needs* - This could be thought of as "farming by kind of soil" or "prescription farming". Areas where additional research is needed include integrated pest management, soil testing procedures, the effectiveness of techniques such as split nitrogen applications or use of nitrogen inhibitors, manure testing and appropriate application rates, and using legume rotation as a source of nitrogen.
- *Development of Alternative Technologies* - Integrated pest management is an example of an alternative technology which is becoming more mainstream. Other alternative technologies which may hold promise include the utilization of green manure crops to reduce nitrogen leaching and timing and techniques for cultural weed control.
- *Development and Testing of Best Management Practices (BMP's)* - Research is needed to identify and evaluate BMP's for surface and ground water protection. One example is the management of phosphorus. We need to evaluate BMP's in their ability to reduce phosphorus inputs into surface and ground water, and to evaluate the relationship between phosphorus management and crop productivity in a variety of crops, climate and soil characteristics.

Priority Area 5
Managing The Use Of Land And Water

Growth in Minnesota's population and economy will lead to increased pressure on land and water. Threats include increased development pressure on shoreland and other sensitive areas, such as wetlands, bluffs, and rural lands. Pressures for economic development and increased return on investments will also threaten agricultural land, urban open space, and forests. Recreational pressures on lakes and rivers will increase.

Minnesota has many programs that seek to manage the use of land and water. Programs like the Shoreland Management program and Clean Water Partnership have become national models. Comprehensive local water planning is demonstrating the key job of local government in identifying problems and developing solutions.

Still, the drought of 1988 exposed weaknesses in the way land and water uses are managed. At a small development focus, subdivisions depending on shallow wells ran out of water. In some areas, homes built on poor soils developed cracks in their foundations. At a large development focus, the single dependence of the City of Minneapolis on the Mississippi River raised issues of both water conservation and river use policy.

Other problems, not drought-related, indicate need for new approaches. Impoundments for flood management raise water quality and land management issues, yet watershed programs are not linked to project approval. Bluffs along the Mississippi are developed in ways many consider unwise, without effective use of local or state land management programs.

The challenge is to coordinate and concentrate local, state, and federal programs on protecting resources. A river protected from industrial pollution can be degraded by shoddy bluff development. A lake with well-managed shorelands can be made unattractive by polluted runoff from far upstream. Ground water can be the unintentional recipient of the by-products of land uses; or, it can place its own limits to growth when supplies are limited.

An integrated approach is needed to resolve and eliminate conflicts between the use and protection of land and water.

ISSUE: Holistic Management Of Land And Water Resources

We need to think about land when we manage water. We need to think about water when we manage land. We need to run state and local programs as if they were administered by one agency. This requires a special focus on the resource.

Each lake or river is unique. Each has different qualities and responds differently to demands placed upon it. Each also has unique demands placed upon it, and unique amenities that it can provide.

Therefore, each lake or river should be managed in a unique way to accommodate its special characteristics. The mix of practices, incentives, and regulations available to local, state, and federal government need to be applied in an integrated manner. The goal of this integration is to ensure that the best decisions are made for the particular lake or river.

While a special focus on the resource may enable managers and citizens to identify opportunities for that resource, unintended "external" effects need also to be considered. In particular, we must consider the effects of watershed management on ground water.

Because it would not likely be possible, initially, to approach the management of every lake or stream in this idealistic way, a pilot program focusing on selected resources is suggested for the timeframe of this Agenda.

Ten-Year Objective: To manage targeted water bodies and their related land resources holistically.

Major Actions Required During The Decade

- Establish a cooperative intergovernmental program that brings together authorities of local, state, and federal governments to manage selected rivers and lakes as units.
- Find and implement ways of effectively involving local citizens and interest groups, and local, state, and federal officials in identifying opportunities for holistic management within individual rivers, lakes, and their watersheds.
- Enact legislative changes as needed to eliminate

barriers to managing rivers and lakes as units.
- Use comprehensive local water plans as key "building blocks" for construction of comprehensive river and lake management initiatives under this program.
- Ensure that ground water concerns and opportunities are fully addressed when undertaking river, lake, and watershed management initiatives.
- Establish a program that brings together authorities of local, state, and federal governments to manage sensitive ground water systems holistically.
- Establish information management systems that facilitate management of river, lake and ground water systems holistically. This should include collection and assessment of water-related data, like land use, soil erosion information, set aside lands, flood prone lands, geologically sensitive lands, etc. on a small watershed, stream kilometer, and aquifer basis.
- Evaluate by the end of the decade the effectivenes of these new efforts in managing water holistically.

ISSUE: Sustainable Development Of Water And Land Resources

Water and related land management programs are usually geared to react to population and economic factors. Flood mitigation efforts, cleanup of superfund sites, and restoration of lakes are examples of management that is basically reactive to development. Inter-basin diversion of water to bring needed supplies to water-short regions is another example.

The concept of development that can be sustained over the long term without adverse impacts argues for a pro-active approach to land and water management. Prevention of problems is more likely to result when resource carrying capacities or limitations are accounted for in growth decisions. It should be possible to fairly and cooperatively manage growth within resource limits, rather than let uncontrolled, unplanned growth determine our quality of life and the quality of our water resources.

Ten-Year Objective: To build consideration of growth management into water and land protection programs in order to foster sustainable development.

Major Actions Required During The Decade

- Establish a cooperative local-state program to identify and manage areas sensitive to growth.
- Tie ground water sensitive areas, wellhead protection areas, water quality plans, water use contingency plans, and water allocation plans into water protection limits to be set in local areas.

  Areas with large volumes of water use, or with the likelihood of experiencing water quality problems, shortages, or use conflicts, would be the focus.

  "Water protection limits" would include best management practices, water resource protection requirements, wellhead protection measures, water quality standards, and protected stream flows and lake levels, as well as measures targeted to sensitive areas that might be designated by local government (e.g., in comprehensive local water plans).
- Link approval of inter-basin water diversion proposals to growth and water use projections and point of origin in-system (e.g., instream flow needs) needs. Diversions from growth sensitive areas would be restricted.
- Encourage the use of comprehensive local water plans as the vehicle for linking growth management concerns to land and water management initiatives.

ISSUE: Strengthening Integrated Management Capabilities

Many of the programs that can be used as building blocks to holistic management of water and land must themselves be strengthened. If we do not have all the tools necessary to identify and protect wetlands, we cannot fully integrate wetlands management into watershed, water quality, or flood management.

If we do not have an up-to-date information system — for example, with current land use, water quality and quantity data, wetland and ditch maps and characteristics, soils, and topography — then we will not be able to understand the river, lake, or ground water resource. We will not be able to manage these resources in a holistic or integrated manner.

Ten-Year Objective: To strengthen state and local capability to manage land and water uses in an integrated manner.

Major Actions Required During The Decade

- Implement comprehensive water plan recommendations according to timetables contained in the plans. Focus state efforts toward management of ground water, as well as rivers, lakes, and their watersheds targeted for integrated management initiatives.
- Promote and secure passage of a comprehensive wetland management act that incorporates a wetland enhancement and restoration policy, a no-net loss policy, a mitigation and compensation framework and an enforcement and monitoring framework. Development of a digitized mapping system for the

national wetlands inventory will also be required for effective implementation of this initiative, as well as integrated watershed management programs.
- Assess public participation in the drainage law. Identify opportunities to accomplish broad water resource enhancement that are available within the drainage program and drainage systems.
- Complete a automated statewide inventory of the public drainage systems and their characteristics.
- Statewide floodplain management regulations and local zoning ordinances need to be re-evaluated to see if they can be streamlined in order to promote administrative efficiency.
- Develop a comprehensive for evaluating a wide variety of development activities within watersheds to determine their potential impact on flooding.
- Enact legislation to protect the integrity of river and lake bluffs outside the shoreland and floodplain districts.
- Monitor to provide information on water quality trends to guide implementation of nonpoint source pollution control programs.
- Conduct comprehensive water quality assessments for major river, lake, and aquifer systems (similar to current efforts directed at the MN River).
- Continue development of Best Management Practices and technologies for identifying and controlling NPS.
- Initiate evaluation of existing programs for effectiveness in abatement of nonpoint sources of pollution (NPS).
- Provide adequate support for state and local programs geared toward holistic management of land and water.

Research Needs

1. Sustainable Development. Growth within water and land units like lakes or watersheds is dependent upon both social preferences or expectations and ecological requirements. In order to foster "sustainable development," research is needed on several water-related characteristics. These include:
- The long-term capacity of specific water bodies (including ground water) to assimilate contaminants, and to absorb uses like appropriations, recreation, and shoreland development without degradation of quality.

  This necessitates development of certain information on a statewide basis where important to assessing long-term carrying capacity. Examples include: survey of aquifer boundaries and safe yields; assessment of hydrogeologic sensitivity at the county level (through county geologic atlases); and age-dating of ground water.
- Integrated methods to identify growth sensitive areas of the state and the dominant growth-limiting factors in these areas.
- Methods to identify and mitigate economic and social impediments to sustainable development policies. In the area of sustainable agriculture, this would involve research on the potential implications of sustainable agriculture on businesses, as well as social and cultural practices.
- Procedures for allocating scarce resources in areas sensitive to growth.
- Use of geographic information systems in identifying areas sensitive to growth and their growth limiting factors. Data included in the GIS must be maintained routinely at a high level of quality (i.e., at a high level of resolution and currency). This would include detailed, up-to-date information on land use, topography, soils, hydrogeology, and quality and quantity of water resources.

2. Effectiveness of Watershed Management. The effectiveness of watershed management techniques and institutions needs to be examined. Research is needed on:
- The effect of various management practices on receiving water quality. This should include assessment of individual, ground water area-wide, and watershed-wide practices, and the effect of surface water "best management practices" on ground water. This will help in determining "BMPs" and "water resources protection requirements" called for in the Ground Water Protection Act.
- Simplified modeling of watershed processes, including the role of wetlands in watershed hydrology and water quality, and the impact of watershed activities on ground water. Improvements of predictive models like AGNPS, including simplification and calibration, is needed.
- The implementation of local water management programs. Local water planning is a key element of the Ten-Year Agenda. If local government is to fulfill this needed role, barriers encountered must be identified and addressed.

3. Integrated Pest Management. IPM, when properly used, means less chemicals applied and, consequently, less chance for water contamination. We need:
- Demonstration of the applications of IPM and documentation of the economic and environmental viability of IPM in Minnesota.
- Research on pest damage threshholds and pest control alternatives in various parts of Minnesota.
- Research on biological controls to minimize or eliminate the need for pesticide use.

4. Small Lake Water Quality/Eutrophication. Managing lands to reduce polluted runoff is a key component of managing lakes. But, in many cases, in-lake measures are necessary to improve lake quality. Lakes are

complex systems that more often than not do not lend themselves to simple solutions. Research is needed on:

- Elements of and procedures for developing comprehensive lake management strategies.
- Winter aeration technology and effectiveness.
- Lake sedimentation rates, using sediment core dating. Determination of sedimentation rates for lakes of different ecoregions and watershed sizes and types in Minnesota.
- Lake-ground water interactions including predictions and remedial actions for case-study problem lakes.
- The effectiveness of lake and wetland restoration methods.
- Techniques for addressing exotic plant problems (e.g., eurasion milfoil).

Priority Area 6
Provide Adequate Communication And Education

Continued improvement in water quality and wise management of available water will depend on individuals and groups voluntarily changing behavior. To precipitate that change in behavior, people need to understand how their actions affect the water and soil resources. The state needs to provide information about issues, programs, and research results with a view toward broad environmental effects.

An understandable state communication framework will connect the numerous actions and groups involved in water management. Citizens, local governments, and others need to understand how they can obtain information or provide information to the state. Training is needed at both the state and local level to assure that policy makers and staff have a broad understanding and needed skills.

Local government plays a key role in water management. The state needs to unify its delivery of information and assistance to local government to ensure problems are addressed in the broadest context.

ISSUE: Develop And Implement A Communication And Education Plan

Education and information are necessary for informed public participation and decision making. The state has a complex system of management and an agency's ability to provide information tends to vary considerably. Yet local and federal government and the public need to understand the broad issues and the total actions underway or needed for wise management.

The Environmental Quality Board has an education subgroup with a subcommittee on water resources. The 1989 Ground Water Protection Act requires the EQB to develop an information and education strategy.

Ten-Year Objective: To develop and carry out a water resources information and education strategy through the EQB.

Major Actions Required During The Decade

- Expand formal educational efforts so that all Minnesota children receive K-12 environmental education and appropriate water-related curriculum is available.
- Establish a process to ensure that the state's water education efforts, both formal and informal, occur in a coordinated, systematic manner.
- EQB/WRRC co-sponsors biennial water conferences (e.g. Water 88) to provide technical information to governmental staff, researchers, and others interested.
- Expand the EQB and state environmental agencies capability to provide non-formal education that bespeaks a comprehensive view.
- BWSR establishes an ongoing process to communicate with local government about land and water resources needs and programs.

ISSUE: Training About Range Of Water Issues And Programs

State personal best serve the state if they have a broad resource perspective and understand the variety of governmental actions and programs available for resource management. There is no institutionalized strategy for state staff to understand what programs are available. Such a strategy could help staff as resource managers, reduce competition between agencies (promote cooperation and coordination) and work toward a holistic view.

The state is committed to continuing the partnership with local government. In order to address water issues comprehensively, the state must be able to deal with local government in a unified manner.

The state is delegating to local government water protection and management programs. In addition, basic land use authorities rest with local government and need to be used for environmental protection. Local policy leaders and staff need to understand the issues and implication of local and state actions affecting the land and water. They need the technical capability to manage their regulations and programs and the ability to carry out delegated programs.

Ten-Year Objectives: To develop an ongoing process to meet local training and information needs, and ensure that state agency personnel serve as general resource educators with a broad understanding of programs and actions that can be used to protect or better manage water resources.

Major Actions Required During The Decade

- Ensure Minnesota schools of higher education educate enough people with technical skills to work on issues relating to the states complex hydrogeology.
- Set up a training program through the Department of Employee Relations to provide state personnel with a holistic view of the environment and an understanding of existing programs and laws.
- Establish better methods to increase communication between and by state agencies to ensure a holistic view and to provide a comprehensive link to local government.
- EQB/WRC co-sponsors biennial water conferences to provide technical information to governmental staff, researchers, and others interested.
- Conduct needs assessment based on content of comprehensive local water plans.
- Develop an ongoing process to provide training opportunities for local officials and local staff.

ISSUE: Refining The State's Public Participation Process

The state needs a well-understood strategy for public input into water policy development and for reaction to existing programs and actions. One part of that strategy should include the role and frequency of Environmental Congresses.

The Trust fund legislation calls for convening of a "Resouces Congress" every two years. The related efforts of the EQB's Environmental Congress need to complement the Trust fund work of the LCMR.

Ten-Year Objective: To have a clear process for public guidance on present actions and directions and for public input into water policy development.

Major Actions Required During The Decade

- Convene an Environmental Congress (biennially) with representatives of state, federal and regional agencies, citizen organizations, associations, industries, colleges and universities and private enterprises to receive reports and exchange information on progress and activities related to environmental improvement. (EQB priorities)
- Use biennial Environmental Congress to assess accomplishments, identify emerging issues, and to help establish priority environmental issues.
- Use annual Environmental Congress for water focus as needed;
- Continue agencies' use of task forces and advisory committees for input into specific topic areas.
- Develop standard, routine opportunities for obtaining citizen involvement in water management and policy development activities.
- BWSR establish an ongoing process for communication with local water planning and management groups and brings local water issues and priorities to state forums.
- Local water plans assessed for identification of state and local needs and used in establishing long range and biennial priorities.
- EQB work with the LCMR to ensure the Resources Congress and the Environmental Congress complement each other or are joint efforts.

Research Needs

1. Communication/Coordination. Analyze the mismatch between legal jurisdictional authority and natural systems:

- How can the fractured authority between city, county, state, and federal agencies be integrated?
- How can jurisdictional systems, natural ecologic systems, and social systems be brought into harmony?

2. Public Participation Needs. Evaluate the current array of public participation measures used by the state and recommended needed changes.

3. Education. Study the approaches needed to successfully cause people to change behavior. This could highlight non-point efforts such as reminding people of the effects of fertilizing near lakes, disposing of waste in storm sewers, and household hazardous waste management etc.

- Research how to develop a low budget mass educational campaign to change individual behavior. The approach would include such items as effective public service announcements for TV and radio.
- Analyze the use of symbols, pictures and verbal messages to bring about a resource protection ethic.

Minnesota Board of Water & Soil Resources

Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, Minnesota 55107

(612) 296-3767

December 7, 1989

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

FROM: Jim Birkholz, Executive Director

SUBJECT: Change in December Board Meeting Date

Please note that the date of the December meeting of the Board of Water and Soil Resources has been changed to **Wednesday, December 20, 1989**. The meeting location will again be the Holiday Inn East at the intersection of McKnight Road and Interstate 94, east of St. Paul. For Board members needing room reservations the number is 612-731-2220.

Please mark this change on your calendars. Please make every effort to attend this meeting as we will be recognizing the four outgoing SWCD representatives on the Board and would like to take pictures of the members of the original Board. A complete Board mailing packet will be mailed to you on December 12th. Let me know if the new meeting date conflicts with your schedule.

JB:mja

Regional Offices

Northwest Region
1819 Bemidji Ave.
Bemidji, MN 56601
218-755-3963

Northeast Region
Government Service Center
320 W. 2nd Street
Room 603
Duluth, MN 55802
218-723-4752

West Central Region
611 Iowa Avenue
Staples, MN 56479
218-894-1692

South Central Region
Box 756
New Ulm, MN 56073
507-354-2196

Southeast Region
Friedell Bldg., Room 100
1200 S. Broadway
Rochester, MN 55904
507-285-7458

Southwest Region
Box 111
1400 E. Lyon Street
Marshall, MN 56258
507-537-7260

East Central Region
Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, MN 55107
612-296-3767

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BOARD OF WATER AND SOIL RESOURCES
HOLIDAY INN EAST
I-94 and MCKNIGHT ROAD
ST. PAUL, MINNESOTA
DECEMBER 20, 1989

AGENDA

9:00 a.m.

1. Call to Order
2. Adopt Agenda
3. Approval of Minutes of November 22, 1989
4. Reports
   - Chairman's Report - Donald Ogaard
   - Executive Director's Report - Jim Birkholz
   - EQB/Water Resources Committee Report - Loni Kemp
   - Dispute Resolution Committee Update on the Forest Lake WMO Plan - Donald Ogaard, Bruce Sandstrom
5. Review of the Metropolitan Local Water Management Task Force Report - for information - Chm. Ogaard, Mel Sinn, Bruce Sandstrom
6. Recognition of Board Members Whose Terms Expire 12/31/89
7. Erosion and Sediment Control Cost-Share Program Roll Over Allocations - for decision - Greg Larson

   Cost-Share Rule Update - motion to amend rules
8. Advisor Comments

Noon — Lunch

1:00 p.m.

9. RIM Reserve Wetland Restoration - continuation of discussion regarding use of RIM program where mitigation is required
10. 110B Comprehensive Local Water Planning - Hubbard County - for approval - Dan Steward

    Red River Valley Plans - for overview - Dan Steward

    Douglas County Plan Update - Dan Steward
11. LCMR Proposals

3:00 p.m. — Adjourn

- Except for the metropolitan areas listed below, meals, including tax and a reasonable gratuity, not to exceed $6.00 for breakfast provided that the employee leaves home before 6:00 a.m. or is away from home overnight; $7.50 for lunch provided that the employee is in travel status and more than 35 miles away from his/her normal office, or is away from home overnight; and $13.50 for dinner provided that the employee cannot return home until after 7:00 p.m. or is away from home overnight. For the following metropolitan areas the maximum reimbursement shall be:

Breakfast	=	$ 7.00
Lunch	=	$ 8.50
Dinner	=	$15.50

The metropolitan areas are:

Atlanta	Miami
Boston	New Orleans
Chicago	New York City
Cleveland	Philadelphia
Dallas	San Diego
Denver	San Francisco
Detroit	Seattle
Hartford	Washington, D.C.
Houston	
Los Angeles	

Employees who are in travel status for two or more consecutive meals shall be reimbursed for the actual costs of the meals up to the combined maximum amount for the reimbursable meals.

- Hotel and motel accommodations provided that employees exercise good judgment in incurring lodging costs and that charges are reasonable and consistent with the facilities available.

- All work-related long distance telephone calls provided that the employee does not have a State telephone credit card or is unable to bill the call to the office telephone number.

- Actual, documented personal telephone call charges. The maximum reimbursement for each trip shall be the result of multiplying the number of nights away from home by two (2) dollars.

- Reasonable costs of dry cleaning and laundry services, not to exceed $16.00, each week after the first week an employee is in continued travel status.

- Reasonable baggage handling costs.

- Parking fees and toll charges.

Receipts. The Appointing Authority may require receipts for any reimbursement requested by an employee under the provisions of this or any other chapter in this plan.

Uniforms. If an Appointing Authority requires an employee to wear a uniform, the Appointing Authority shall supply the initial uniform and the employee shall be responsible for the maintenance of the uniform.

Chapter 15. EXPENSE REIMBURSEMENT

General. The Appointing Authority may authorize payment of travel and other expenses and reimbursement of special expenses for employees and interns in accord with the provisions of this Chapter and Administrative Procedure 4.4 for the effective conduct of the State's business. Such authorization must be granted prior to incurring the actual expenses.

Privately-Owned Vehicles and Aircraft. An employee shall be reimbursed for the use of privately-owned vehicles and aircraft under the situations and at the rates specified below. In all cases, mileage must be on the most direct route according to Department of Transportation records.

Situation	Rate Per Mile
• Use of personal automobile when a State-owned vehicle is not available.	$.27
• Use of personal automobile when a State-owned vehicle is available and declined by the employee.	$.21
• Use of personal van or van-type vehicle specially equipped with a ramp, lift, or other level-changing device designed to provide wheelchair access.	$.40
• Use of personal aircraft provided that the employee demonstrates adequate liability coverage under the requirements of M.S. 360.59, subdivision 10.	$.43
• Use of personal motorcycle or similar two-wheel motorized vehicle.	$.13

Other Travel Expenses. Upon approval of the Appointing Authority, employees in travel status may be reimbursed for expenses described below in the amounts actually incurred not to exceed any maximum amounts specified below.

Where anticipated expenses total at least $100.00, the Appointing Authority shall advance the employee the amount of the anticipated expenses upon the employee's request made a reasonable period of time prior to the travel date. If the amount advanced exceeds the actual expenses, the employee shall return the excess within two weeks of return from travel. The Appointing Authority may issue the employee a state-owned credit card in lieu of a travel advance.

Reimbursable expenses may include, but are not limited to, the following:

- Commercial transportation (air, taxi, rental car, etc.) provided that no air transportation shall be by first class (unless authorized by an Appointing Authority if no other seating is available) and that reimbursement for travel which includes more than one destination visited for State purposes and non-State purposes shall be in an amount equal to the cost of the air fare only to those destinations visited for State purposes.

Minnesota Board of Water & Soil Resources

Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, Minnesota 55107

(612) 296-3767

RECEIVED
NOV 29 1989
TOWN OF FOREST LAKE

November 28, 1989

Curtis Sparks, Chairman
Forest Lake Water Management Organization
21350 Forest Boulevard North
Forest Lake, MN 55025

Dear Chairman Sparks:

Re: Decision of the BWSR Dispute Resolution Committee

On November 22, 1989 the Board of Water and Soil Resource's Dispute Resolution Committee met to decide on a course of action with respect to the Forest Lake Watershed Management Plan (Plan). As a result of that meeting, the Committee recommended that the BWSR not approve the plan until the following actions are taken by the Forest Lake Watershed Management Organization (FLWMO):

1) That the FLWMO determine who is responsible for the maintenance of the outlet channel, recommend a schedule for maintenance and amend the Plan to reflect the same.

2) That the FLWMO undertake a study to evaluate the existing easements which allow the maintenance of the dam and outlet channel to ascertain their present validity and to cause any revisions to be made to allow the responsible agencies to carry out the maintenance specified in item 1, above.

3) That the FLWMO include a summary of the history of the outlet dams constructed on Forest Lake in the Plan.

4) That the FLWMO request the Minnesota Department of Natural Resources to hold a hearing to formally establish the ordinary high water level of Forest Lake.

5) That the FLWMO amend the Plan to establish a plan of action and a time table to address the phosphorus loading of Forest Lake which originates from the portion of the watershed which is storm sewered directly into the lake without any level of pre-treatment.

Upon appropriate resolution of these matters the BWSR will take action to approve the plan. Feel free to contact staff member Bruce Sandstrom at 297-4958 if you have any questions.

Sincerely,

Don Ogaard, Chairman
Minnesota Board of Water and Soil Resources

cc Tom Balcom, MDNR
Tim Scherkenbach, MPCA
Marcel Jouseau, Met Council
Kathleen Wallace, MDNR Metro Reg.

A:flwmodrc.ltr

Regional Offices

Northwest Region
1819 Bemidji Ave.
Bemidji, MN 56601
218-755-3963

Northeast Region
Government Service Center
320 W. 2nd Street
Room 603
Duluth, MN 55802
218-723-4752

West Central Region
611 Iowa Avenue
Staples, MN 56479
218-894-1692

South Central Region
Box 756
New Ulm, MN 56073
507-354-2196

Southeast Region
Friedell Bldg., Room 100
1200 S. Broadway
Rochester, MN 55904
507-285-7458

Southwest Region
Box 111
1400 E. Lyon Street
Marshall, MN 56258
507-537-7260

East Central Region
Southbridge Office Building
155 South Wabasha Ave., Suite 104
St. Paul, MN 55107
612-296-3767

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Don

Forest Lake
Watershed Management Organization
21350 Forest Boulevard North
Forest Lake, Minnesota 55025
Phone (612) 464-4348

RECEIVED
DEC 18 1989
WATER & SOIL

Mr. Ron Nargang, Director
Division of Waters
Department of Natural Resources
500 Lafayette rd
St Paul, Mn. 55155

December 15, 1989

Dear Mr. Nargang,

The Board of Water and Soil Resources (BWSR) has made it a condition of its approval of the Forest Lake Watershed Management Plan, "That the FLWMO request the Minnesota Department of Natural Resources to hold a hearing to formally establish the ordinary high water level of Forest Lake." The BWSR letter is attached for your information.

This letter is in response to the BWSR requirement. Please notify us of your intentions in this matter. We would appreciate a reasponse for our next watershed meeting on January 4, 1990.

Sincerely,

Curtis Sparks

Curtis Sparks, P.E.
Chairman, FLWMO

cc BWSR
Town of Forest Lake
City of Forest Lake
Town of New Scandia
Washington SWCD

Minnesota Board of soil and water resources
Southbridge Office Bldg.
155 South Wabasha Ave. Suite 104
Saint Paul, Mn. 55107

December 1, 89

RECEIVED
DEC 4 1989
BOARD OF WATER & SOIL RESOURCES

Re.: Decision of the BWSR dispute resolution committe.

Dear Mr. Ogaard:

I have reviewed your 5 point proposal to resolve the Forest Lake dispute. Your response shows me that you either havent spent the time to read and understand the documents and plans provided your orginization or you are intentionally closeing your eyes hoping the problem will go away.

For twelve years we have pursued this problem only to see every law government is bound to uphold, violated. In the private sector we have seen violations totally ignored by those sworn to administrate the law.

Mistakenly I had assumed that you were the internal affairs of the resources department, items one two and four prove that.

Item 1
The 1923 resolution clearly shows who is responsible for the cleaning of the channel as well as the legal elevation. For example: The re-built 1923 dam, built 3 inches higher than the 1913 dam shall be the nohw. (not measured at the dam but at the shore. The resolution was written to prevent what has happened, namely 2" of water flowing over the dam and 14" higher on the lake proper.

Item 2
Your orginization has a primary purpose, to prevent flooding. The Forest Lake outflow channel is responsible for draining 16 square miles. For five years the Washington County Engineer has told us that we have no right to enter the property to maintain the channel. The county attorney testifies that there could be easements, however, they were rendered useless when the apartment complex was built. If the buildings have rendered the easements useless then remove the buildings, does the government only have authority and power when they deal with us?
In the summer the weeds from the lake hook on the illegal island (re-construction paid for by the taxpayers) creating a dam of weeds. At the dam is a floating carp screen that hasnt floated for thirty years. As the weeds go by the dam they hook on the grate for the carp trap. I have seen the weeds six inches high which create another dam. Along the channel are old willow trees. (the owner demanded they not be touched) When they drop their branches the weeds hook on and another dam is created.
Remove those old trees, remove the illegal island, remove the inoperative carp screen and the water will flow unimpaired. If the owner wants to keep his building let him sheet pile the channel at his expense. Plan F-300 calls for a channel 25 feet wide. If the aforementioned were done the channel could be periodically cleaned for about two thousand dollars with a mini dredge.
Washington County claims it spent 4500.00 to clean 75 feet and it cost in excess of 50000.00 dollars to complete the job in 1982. Since that cleaning the lake has stabilized, the water has risen one inch above the dam twice in four years.

Item 4
The 1923 resolution states clearly what the nohw is, based on Plan F-300 elevations. For twelve years we have been telling agencys that the ohw is not natural or usual but rather created. If your agency goes forward with a request to hold hearings on the ohw for Forest Lake, you will be included as a co-conspiritor to the up and coming action.

Sincerely
William Morse

December 12, 1989

LOCAL WATER RESOURCES PROTECTION
AND MANAGEMENT PROGRAM
RULES MEETING

DECEMBER 13,1989

AGENDA

INTRODUCTIONS

REVIEW OF HANDOUTS

DISCUSSION OF CONCEPTS USED IN DRAFTING THE RULE

DISCUSSION OF ISSUES

OVERVIEW OF DRAFT RULE

NEED FOR SUBCOMMITTEES?

RULEMAKING TIMETABLE

SCHEDULE FUTURE MEETINGS

CHAPTER 103B

WATER PLANNING AND PROJECT IMPLEMENTATION

103B.3361 Citation.
103B.3363 Definitions.
103B.3369 Local water resources protection and management program.

NOTE: Chapters 103A, 103B, 103H, and 103I, have been assigned the present statutory coding subject to further action of the legislature.

LOCAL WATER RESOURCES PROTECTION AND MANAGEMENT PROGRAM

103B.3361 CITATION.

Sections 103B.3361 to 103B.3369 may be cited as the "local water resources protection and management program."

History: *1989 c 326 art 2 s 8*

103B.3363 DEFINITIONS.

Subdivision 1. Scope. The definitions in this section apply to sections 103B.3363 and 103B.3369.

Subd. 2. Board. "Board" means the board of water and soil resources.

Subd. 3. Comprehensive local water plan. "Comprehensive local water plan" means a county water plan authorized under section 110B.04, a watershed management plan required under section 473.878, a watershed management plan required under section 112.46, or a county groundwater plan authorized under section 473.8785.

Subd. 4. Local unit of government. "Local unit of government" means a statutory or home rule charter city, town, county, or soil and water conservation district, watershed district, an organization formed for the joint exercise of powers under section 471.59, a local health board, or other special purpose district or authority with local jurisdiction in water and related land resources management.

Subd. 5. Program. "Program" means a water-related program.

History: *1989 c 326 art 2 s 9*

103B.3369 LOCAL WATER RESOURCES PROTECTION AND MANAGEMENT PROGRAM.

Subdivision 1. Assistance priorities. State agencies may give priority to local requests that are part of or responsive to a comprehensive local water plan when administering programs for water-related financial and technical assistance.

Subd. 2. Establishment. A local water resources protection and management program is established. The board shall provide financial assistance to counties for local government activities that protect or manage water and related land quality. The activities include planning, zoning, official controls, and other activities to implement comprehensive local water plans.

Subd. 3. County request and sponsorship. Counties must submit funding requests to the board. A county must coordinate and submit requests on behalf of other units of government within its jurisdiction.

Subd. 4. Contracts with local governments. A county may contract with other appropriate local units of government to implement programs. An explanation of the program responsibilities proposed to be contracted with other local units of government must accompany grant requests. A county that contracts with other local units of government is responsible for ensuring that state funds are properly expended and

for providing an annual report to the board describing expenditures of funds and program accomplishments.

Subd. 5. Financial assistance. The board may award grants to counties only to carry out water resource protection and management programs identified as priorities in comprehensive local water plans. Grants may be used to employ persons and to obtain and use information necessary to:

(1) develop comprehensive local water plans under section 110B.04 that have not received state funding for water resources planning as provided for in Laws 1987, chapter 404, section 30, subdivision 5, clause (a); and

(2) implement comprehensive local water plans.

Subd. 6. Limitations. (a) Grants provided to implement programs under this section must be reviewed by the state agency having statutory program authority to assure compliance with minimum state standards. At the request of the state agency commissioner, the board shall revoke the portion of a grant used to support a program not in compliance.

(b) Grants provided to develop comprehensive local water plans may not be awarded for a time longer than two years.

(c) A county may not request or be awarded grants for project implementation unless a comprehensive water plan has been adopted.

Subd. 7. Rules. The board shall adopt rules that:

(1) establish performance criteria for grant administration for local implementation of state delegated or mandated programs that recognize regional variations in program needs and priorities;

(2) recognize the unique nature of state delegated or mandated programs;

(3) specify that program activities contracted by a county to another local unit of government are eligible for funding;

(4) require that grants from the board may not exceed the amount matched by participating local units of government; and

(5) specify a process for the board to establish a base level grant amount that all participating counties may be eligible to receive.

Subd. 8. Priorities. (a) In reviewing requests, the board must give priority to requests based on:

(1) completion of comprehensive water plans under sections 110B.04 and 473.8785;

(2) adoption, administration, and enforcement of official controls;

(3) indicate the participation of several local units of government, including multicounty efforts;

(4) complement efforts of federal, state, and local units of government; and

(5) demonstrate long-term commitments to effective water protection and management programs.

(b) The board shall consult with appropriate agencies to evaluate grant requests and coordinate project activities with other state, federal, and local research management projects.

History: *1989 c 326 art 2 s 10*

12/11/89

PROPOSED CHANGE

Amend Laws of Minnesota 1989 (Chapter 326, Article 2, Section 10,) to H.F. 3369
Subdivision 5, clause (1), as follows:

(1) develop comprehensive local water plans under section 110B.04 and 473.8785 that have not received state funding for water resources planning as provided for in Laws 1987, chapter 404, section 30, subdivision 5, clause (a); and

This change will be proposed to the 1990 Legislature.

December 11, 1989

Concepts used in drafting LWRPMP rules:

During fiscal year 1991, several counties will be eligible to receive implementation grants because one or more of four specified comprehensive local water plans will have been approved by the BWSR or, in the case of Ch. 112.46 Overall plans, an updated version was approved by the Water Resources Board.

Type of Plan	Number of Plans/Co's
Ch. 110B.04 ("110B")	56/56
Ch. 112.46 (Overall)	10/19
Ch. 473.878 (Metro Watershed)	27/7
Ch. 473.8785 (Metro Groundwater)	2/2
Total	95/84

Counties with more than one approved plan	14
Counties with at least one approved plan	70

- Any county with one of the four comprehensive local water plans approved will receive, after application, a base non-competitive matching grant of $15000. Fifty percent of this grant must be matched with cash. No reduction in base grant is made for local water plan(s) which cover less than the entire county.

- Any of the above counties may also apply for competitive grants. Competitive grants must also be matched but have no specified cash requirement. Counties with more than one approved comprehensive local water plan will earn "extra" points in the selection process.

- Using available dollars of 2.5 M, and the above number of counties, the following funding possibility exists:
  70 counties @ $15000 = $1050000
  Balance after base = $1450000 available for competitive grants

RECOMMENDATION C: Local Assistance

It is recommended that a program be established to provide financial assistance to local units of government to carry out local water quality management activities. This assistance should be made as part of a comprehensive program of financial assistance for local water resources planning and management capabilities.

In most of the topics of Recommendation B, there is need for local leadership and involvement. This is a direct result of the importance of local knowledge and authorities in achieving nonpoint source pollution control.

To provide local units of government an incentive to become active in protecting water quality using their planning, zoning, official controls, authorities, local knowledge, information and technical resources, a program should be established to provide funds for water quality management activities, local staff and related administration. The funding should be administered through the county, although it may be used to fund activities and staff of other local units of government including SWCD, WD, municipalities, etc. to:

1. develop local water plans authorized or required by Minnesota Statutes, Chapter 110B, 112 or 473.775-.882,

2. participate in the County Feedlot Permit Program,

3. provide follow up and enforcement of shoreland management ordinances,

4. provide Soil and Water Conservation District technical assistance to local units of government and individuals for land and water resources management,

5. improve local regulation of onsite sewage treatment system installation, operation and maintenance,

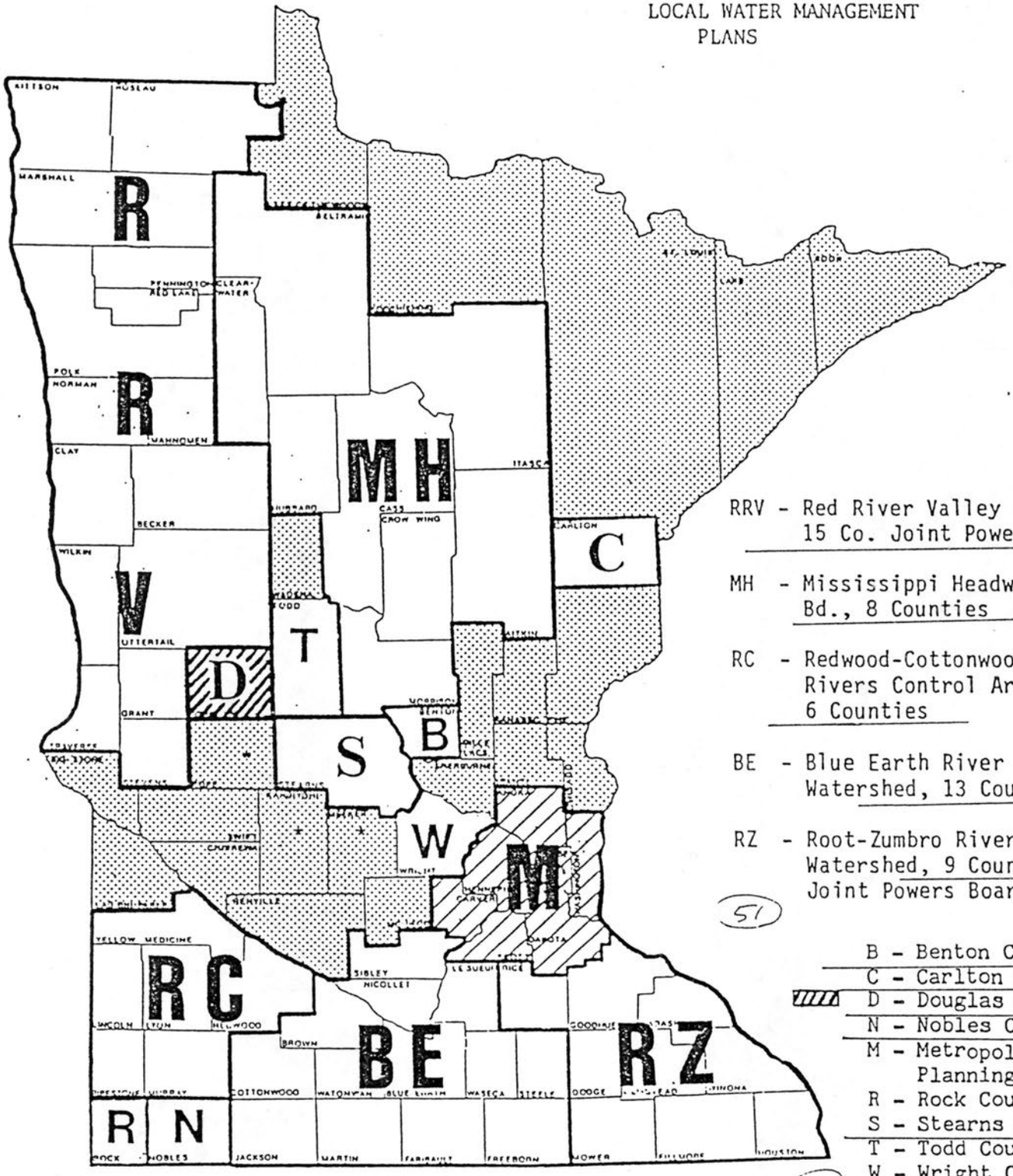
6. provide local regulation and assistance for forestry management practices to control erosion and sediment in shoreland areas, and

7. other activities related to water quality protection and management.

Each county participating would be required to submit an annual report of activities and a proposal of activities for the following year. This program should complement and coordinate with the MDH Community Health Services Program as well as other local, state and federal programs related to water resources management. A portion of the program funds should be reserved for state agencies to provide assistance for local activities.

(MPCA, 1986)

COUNTIES CURRENTLY DEVELOPING
LOCAL WATER MANAGEMENT
PLANS



RRV - Red River Valley
15 Co. Joint Powers Bd.

MH - Mississippi Headwaters
Bd., 8 Counties

RC - Redwood-Cottonwood
Rivers Control Area
6 Counties

BE - Blue Earth River
Watershed, 13 Counties

RZ - Root-Zumbro Rivers
Watershed, 9 County
Joint Powers Board

51

B - Benton County
C - Carlton County
D - Douglas County
N - Nobles County
M - Metropolitan Area
Planning Under 50
R - Rock County
S - Stearns County
T - Todd County
W - Wright County

5

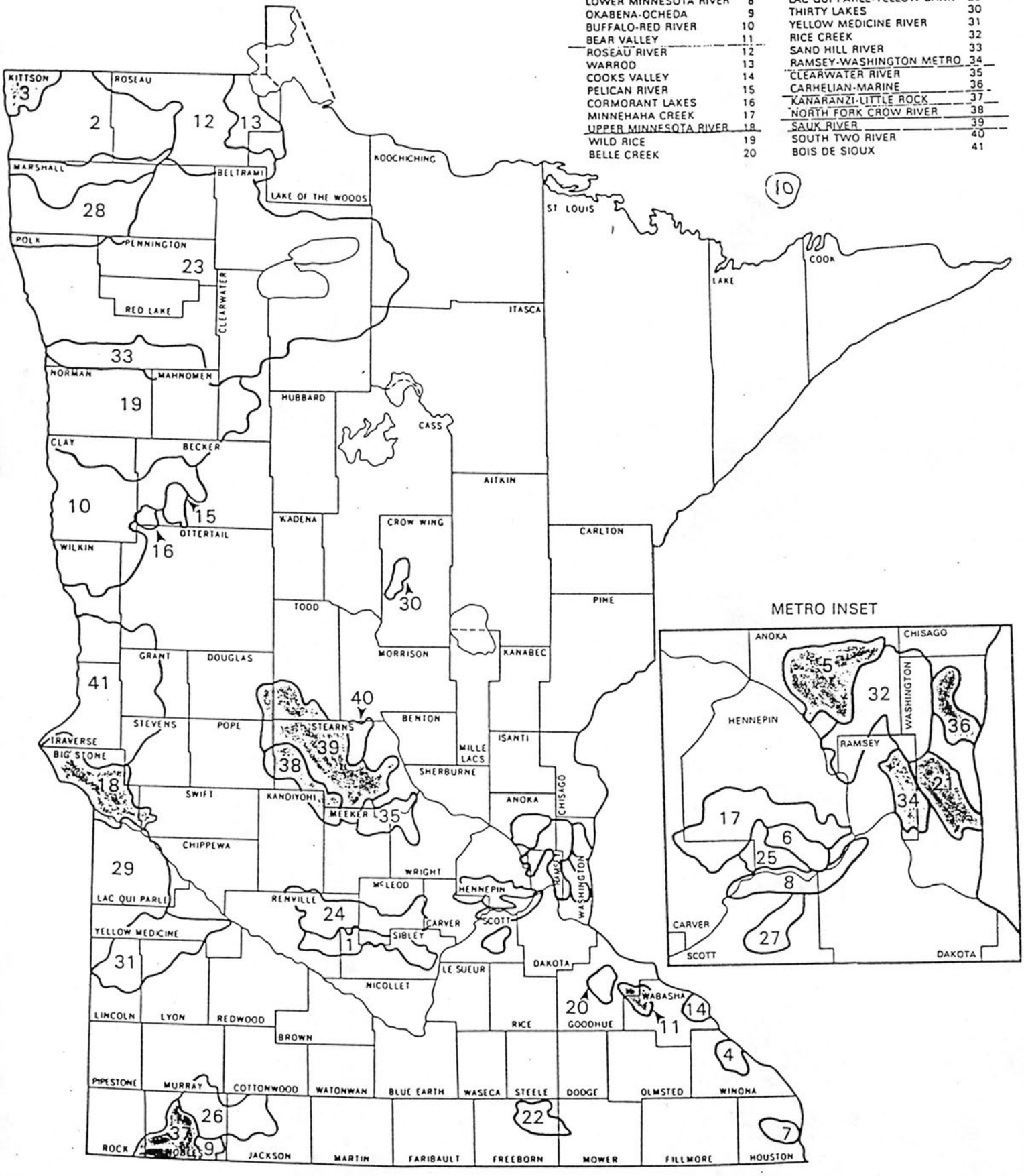
Total = 56 Counties*

* These 56 Counties are anticipated to have plans approved during FY 90-91

WATERSHED DISTRICTS OF MINNESOTA 1988

"Up-To-Date"
Watershed District
Overall Plans (112.46)

WATERSHED DISTRICT	ORDER OF ESTABLISHMENT
HIGH ISLAND	1
THE TWO RIVERS	2
JOE RIVER	3
STOCKTON-ROLLINGSTONE-MINNESOTA CITY	4
COON CREEK	5
NINE MILE CREEK	6
CROOKED CREEK	7
LOWER MINNESOTA RIVER	8
OKABENA-OCHEDA	9
BUFFALO-RED RIVER	10
BEAR VALLEY	11
ROSEAU RIVER	12
WARROD	13
COOKS VALLEY	14
PELICAN RIVER	15
CORMORANT LAKES	16
MINNEHAHA CREEK	17
UPPER MINNESOTA RIVER	18
WILD RICE	19
BELLE CREEK	20
VALLEY BRANCH	21
TURTLE CREEK	22
RED LAKE	23
BUFFALO CREEK	24
RILEY-PURGATORY CREEK	25
MIDDLE DES MOINES	26
PRIOR LAKE-SPRING LAKE	27
MIDDLE RIVER-SNAKE RIVER	28
LAC QUI PARLE-YELLOW BANK	29
THIRTY LAKES	30
YELLOW MEDICINE RIVER	31
RICE CREEK	32
SAND HILL RIVER	33
RAMSEY-WASHINGTON METRO	34
CLEARWATER RIVER	35
CARHELIAN-MARINE	36
KANARANZI-LITTLE ROCK	37
NORTH FORK CROW RIVER	38
SAUK RIVER	39
SOUTH TWO RIVER	40
BOIS DE SIOUX	41



12/11/89

STATUS OF METROPOLITAN WATER MANAGEMENT ACT PLANNING (509) (Ch. 473.878 plans)

November 22, 1989

WATERSHED MANAGEMENT ORGANIZATIONS (WMOs)

Planning Underway	Local Review In Progress	Met. Council Review in Progress	Agency Review In Progress	MBWSR Review In Progress	Plans Approved By BWSR
Carver Creek	Bevens Creek	Lower St. Croix	Central Ramsey**	Richfield-Bloomington*	Ramsey-Wash. Metro (9-12-86)
Chaska Creek	Carnelian-Marine	Marine on St. Croix	Southwest Ramsey**	East Mississippi*	Vadnais Lake (4-07-87)
Hazeltine-Bavaria	Cottage Grove Ravine	Nine Mile Creek	Lower Rum River**	Rice Creek*	Grass Lake (8-19-87)
Middle Miss. River	Lower Minn. River	Riley-Purg.-Bluff Crk	Credit River	Sand Creek	Valley Branch (9-08-87)
Upper Rum River	Minnehaha Creek		Prior L. - Spring L.	Forest Lake*	Pioneer Creek (2-24-88)
	North Cannon River		Middle St. Croix	Sunrise River*	Elm Creek (5-25-88)
	Crow River			Shingle Creek*	Coon Creek (7-27-88)
	Southwest Scott			West Mississippi*	Six Cities (7-27-88)
				Browns Creek*	Lower Mississippi R. (7-26-89)
				Shakopee Basin	Bassett Creek (7-26-89)
				10*	Gun Club Lake (8-23-89)
					Vermillion River (8-23-89)
					Black Dog (11-22-89)
					13

4 from the above group *

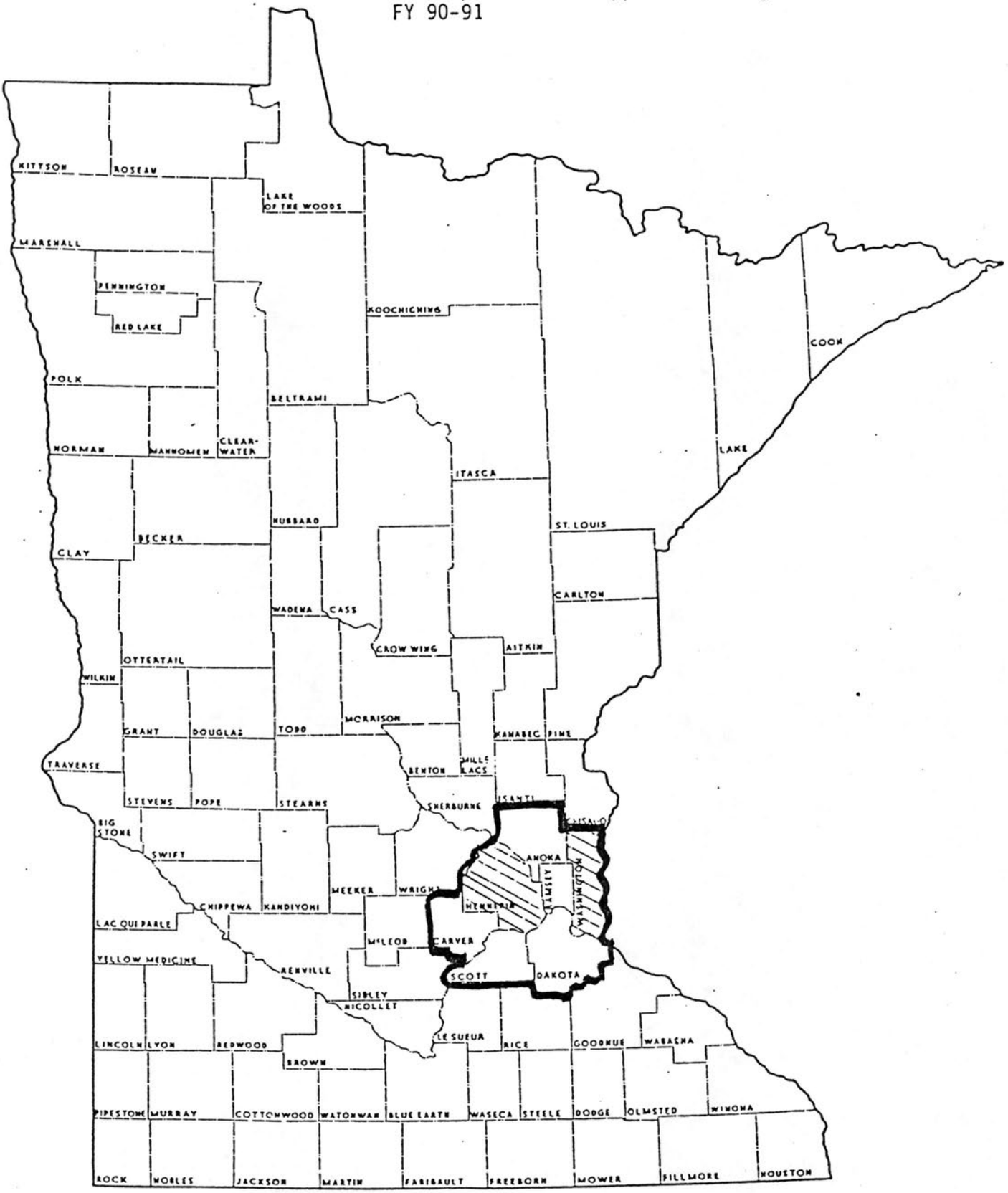
* ----- BWSR has taken formal position and is waiting for plan revisions
** ----- Has never been submitted to agencies for reviews

MBWSR

*anticipated approval during FY 90-91

STATUSOF.509

Counties With Groundwater Plans
(Ch. 473.8785 plans)
Anticipated to be Approved During
FY 90-91



December 12, 1989

ISSUES

- Funding split between base and competitive grants

- Cash requirements

- Requirement of a portion of the local match to exceed traditional funding levels

- Should a limit be established on the amount of federal and state funds credited to the local match?

- Should counties with more than one approved plan receive "special" consideration?

- Should counties where approved plan(s) cover less than the entire county also receive "special" consideration?

Official Notices

Department of Trade and Economic Development

Minnesota Job Skills Partnership Board

Notice of Annual Meeting

The annual meeting of the Minnesota Job Skills Partnership Board will be held on Monday, November 20, 1989, at 1:00 p.m. in Room 300 South State Office Building, St. Paul.

The Minnesota Job Skills Partnership Board solicits grant proposals from educational and other non-profit organizations for training programs designed for specific businesses. Please contact the Partnership office at 612/296-8388 for details regarding grant applications.

Following are application deadline dates and Board meeting dates for 1990:

Deadline Dates for New Grant Applications	MJSP Board Meeting Dates
• January 19, 1990	• February 20, 1990
• April 13, 1990	• May 15, 1990
• July 20, 1990	• August 21, 1990
• October 19, 1990	• November 20, 1990 (annual meeting)

Department of Transportation

Amended Order and Notice of Street and Highway Routes Designated and Permitted to Carry the Gross Weights Allowed under *Minnesota Statutes* § 169.825. Order No. 75451

Whereas, the Commissioner of Transportation has made his Order No. 72156 dated April 8, 1987, which order has been amended by Orders Nos. 73139, 74653, 74846, 75024, 75100, 75193, and 75314 designating and permitting certain street and highway routes, or segments of those routes, to carry the gross weights allowed under *Minnesota Statutes* § 169.825, and

Whereas, the Commissioner has determined that the additional following routes, or segment of routes, should be designated to carry the gross weights allowed under *Minnesota Statutes* § 169.825.

IT IS HEREBY ORDERED that Commissioner of Transportation Order No. 72156 is further amended this date by adding the following designated streets and highway routes, or segment of routes, as follows:

COUNTY ROADS

WATONWAN COUNTY

• C.S.A.H. 2 FROM THE WEST JCT. T.H. 60 TO EAST JCT. T.H. 60 IN THE CITY OF BUTTERFIELD, MINNESOTA (12 MONTH).

Dated: 3 November 1989

Leonard W. Levine
Commissioner

Board of Water and Soil Resources

Meeting Notice

The Board of Water and Soil Resources will hold their November 22, 1989 regularly scheduled monthly meeting at the Holiday Inn-East, St. Paul, Minnesota.

Board of Water and Soil Resources

Outside Information or Opinions Sought Regarding Proposed Rule Governing Local Water Resources Protection and Management Program

NOTICE IS HEREBY GIVEN that the Board of Water and Soil Resources is seeking information or opinions from sources outside

the agency in preparing to propose the adoption of the rule governing grants to counties to implement comprehensive local water plans. The adoption of the rule is authorized by *Minnesota Statutes, Laws of 1989*, Chapter 326, which requires the agency to adopt a rule which specifies the process and priorities for awarding grants to counties for implementing comprehensive local water plans.

The Board requests information and opinions concerning the subject matter of the rule. Interested persons or groups may submit data or views on the subject matter of concern in writing or orally. Written statements should be addressed to: Greg Larson, Board of Water and Soil Resources, 155 South Wabasha Street, Suite 104, St. Paul, MN 55107. Oral statements will be received during regular business hours over the telephone at 296-3767 and in person at the above address.

All statements of information and opinions shall be accepted until November 30. Any written material received by the Board of Water and Soil Resources shall become part of the rulemaking record to be submitted to the attorney general or administrative law judge in the event that the rule is adopted.

Dated: 13 November 1989

Jim Birkholz, Executive Director
Board of Water and Soil Resources

State Contracts and Advertised Bids

Pursuant to the provisions of Minn. Stat. §14.10, an agency must make reasonable effort to publicize the availability of any services contract or professional and technical services contract which has an estimated cost of over $2,000.

Department of Administration procedures require that notice of any consultant services contract or professional and technical services contract which has an estimated cost of over $10,000 be printed in the *State Register*. These procedures also require that the following information be included in the notice: name of contact person, agency name and address, description of project and tasks, cost estimate, and final submission date of completed contract proposal. Certain quasi-state agencies are exempted from some of the provisions of this statute.

Commodities contracts with an estimated value of $15,000 or more are listed under the Procurement Division, Department of Administration. All bids are open for 7-10 days before bidding deadline. For bid specifics, timelines, and other general information, contact the appropriate buyers whose initials appear in parentheses next to the commodity for bid, by calling (612) 296-6152.

Awards of contracts and advertised bids for commodities and printing, as well as awards of professional, technical and consulting contracts, appear in the midweek STATE REGISTER Contracts Supplement, published every Thursday. Call (612) 296-0931 for subscription information. Thank you.

Department of Administration: Materials Management Division

Contracts and Requisitions Open for Bid

Call 296-2600 for information on a specific bid, or to request a specific bid.

Commodity: Laboratory casework
Contact: John Bauer 296-2621
Bid due date at 2pm: November 21
Agency: Public Safety Department
Deliver to: St. Paul
Requisition #: 07300 63134 1

Commodity: Mobile radios
Contact: Pam Anderson 296-1053
Bid due date at 2pm: November 21
Agency: Public Safety Department
Deliver to: St. Paul
Requisition #: 07500 63375

Commodity: Truck cab/van body
Contact: Mary Jo Bruski 296-3772
Bid due date at 2pm: November 21
Agency: DHS-Regional Treatment Center
Deliver to: Brainerd
Requisition #: 55304 08368 1

Commodity: Light fixtures
Contact: Joan Breisler 296-9071
Bid due date at 2pm: November 20
Agency: Military Affairs Department
Deliver to: Little Falls
Requisition #: 01000 06070

Commodity: Compartment/steam cooker
Contact: Joan Breisler 296-9071
Bid due date at 2pm: November 20
Agency: Correctional Facility
Deliver to: Faribault
Requisition #: 02310 17370

Commodity: Nicotine air samplers
Contact: Joseph Gibbs 296-3750
Bid due date at 2pm: November 22
Agency: Health Department
Deliver to: Minneapolis
Requisition #: 12500 42513

December 11, 1989

PROPOSED RULES RELATING TO LOCAL WATER RESOURCES PROTECTION AND MANAGEMENT

0000.0100	Purpose
0000.0110	Definitions
0000.0120	Available Assistance
0000.0130	Eligibility Criteria
0000.0140	Notice of Grant Availability
0000.0150	Grant Application
0000.0160	Rejection of Grant Applications
0000.0170	Ranking of Applications
0000.0180	Allocation of Funding
0000.0190	Selection of Grantees
0000.0200	Grant Conditions
0000.0210	Grant Contract
0000.0220	Grant Payments
0000.0230	Grant Recission

December 11, 1989

PROPOSED RULES RELATING TO LOCAL WATER RESOURCES PROTECTION AND MANAGEMENT

0000.0100 PURPOSE

This chapter provides for the administration of the state local water resources protection and management grant program. Parts 0000.0100 to 0000.0230 implement this program by establishing the substantive criteria and procedural conditions under which the board may award state matching grants for the development and implementation of a comprehensive local water plan.

0000.0110 DEFINITIONS

Subpart 1. Scope. The definitions in this part and in Minnesota Statutes, section 103B.3363 apply to parts 0000.0100 to 0000.0230. If terms defined in this part conflict with the definitions in Minnesota Statutes, chapters 110B, 112, and 473 and the rules adopted under those chapters, the definitions in this part govern.

Subp. 1. Board. "Board" has the meaning given it in Minnesota Statutes, section 103B.3363, subdivision 2.

Subp. 2. Cash Expenditure. "Cash Expenditure" means funds devoted to an eligible program that are in addition to funds spent prior to application.

Subp. 3 Comprehensive Local Water Plan. "Comprehensive Local Water plan" or "plan" has the meaning given it in Minnesota Statutes, section 103B.3363, subdivision 3.

Subp. 4 Local Share. "Local Share" means the contributions of a local unit of government to the eligible cost of a program including the value of cash expenditures and in-kind

contributions of labor, equipment, material and real property used for and expended on eligible program activities.

Subp. 5 Local Unit of Government. "Local Unit of Government" has the meaning given it in Minnesota Statutes, section 103B.3363, subdivision 4.

Subp. 6 Official Controls. "Official Controls" means ordinances and regulations that control the physical development of the whole or part of a local government unit or that implement the general objectives of the local government unit.

Subp. 7 Program. "Program" has the meaning given it in Minnesota Statutes, section 103B.3363, subdivision 5.

Subp. 8 Related Land Quality. "Related Land Quality" which may be also known as "related land resources" means land affected by present or projected management practices that have significant effects on the quantity and quality, or use of groundwater or surface water.

0000.0120 AVAILABLE ASSISTANCE

Subpart 1. Grants. The board may award grants to counties only to carry out water resource protection and management programs identified as priorities in comprehensive local water plans. Grants may be used to employ persons and to obtain and use information necessary to: (1) Develop section 110B.04 or section 473.8785 plans that have not received funding for water resources planning as provided for in Laws 1987, Chapter 404, section 30, subdivision 5, clause (a). Plan development grants shall not exceed a maximum of $15,300 for 110B.04 plans and $15,600 for 473.8785 plans. The amount of the plan development grant must be matched

in its entirety with a local share. Grants may not be awarded for a time longer than two years.

(2) Implement one or more approved comprehensive local water plans. A plan implementation grant consists of two types: base grants and challenge grants. Base grants shall not exceed $15,000 and must be matched in its entirety with a local share. Of that local share, at least 50 percent must be a cash expenditure. Challenge grants are available to a county on a competitive basis. The amount of a challenge grant must be matched in its entirety with a local share.

Subp. 2. **Priority.** All grants must be awarded, within the limits of available appropriations, to those applicants having the highest priority.

Subp. 3. **Technical Assistance.** The board may provide technical assistance to counties who are considering application in order to ensure timely and comprehensive applications. Technical assistance must be given to counties that receive grants, within the limits of available resources.

0000.0130 ELIGIBILITY CRITERIA

Subpart 1. **Eligible Applicants.** Only counties are eligible to apply for grants. A county must coordinate and submit requests on behalf of other units of government within its jurisdiction.

Subp. 2. **Eligible Costs.** Program costs are eligible for state matching grants if the costs are reasonable and necessary for employing persons and obtaining and using information for local government activities that protect or manage water and related land resources. These activities include planning, zoning and official controls.

Subp. 3. **Ineligible Costs.** Ineligible costs include any costs that are not related to the activities in subpart 2. In addition, the following costs are ineligible whether or not they relate to the activities in subpart 2:

A. Expenditures or in-kind contributions incurred prior to the grant award;

B. Building and utility construction;

C. Highway and road construction; and

D. Activities that violate local, state, and federal statutes, rules and regulations.

0000.0140 NOTICE OF GRANT AVAILABILITY

Subpart 1. **Notice.** The board will publish in the State Register a notice that applications for plan development grants and plan implementation grants will be accepted whenever the board determines that funds are available to award such grants. The notice will contain a deadline for application submittal, which must be no less than 60 days from the date of publication.

Subp. 2. **Notification list.** The board shall maintain a list of those local governmental bodies that wish to be notified of grant application periods. Any local governmental body that wishes to be placed on the list shall notify the board by writing to the executive director. Whenever the board publishes notice in the State Register, the board shall mail notice of the grant application period to those local governmental bodies on the list.

Subp. 3. **Grant application periods.** The board may establish a grant appliction period from time to time but there must be at least one application period each fiscal year if funds are available.

0000.0150 GRANT APPLICATION

Subpart 1. **General requirements.** The grant application shall be submitted by a county. A county must coordinate and submit requests on behalf of other units of government within its jurisdiction. A grant application must be submitted in a timely fashion to be considered. The grant application must be submitted on a form provided by the board and must contain the information required in the form and by this part.

Subp. 2. Plan development grant. Any county submitting an application for a plan development grant must submit the following information:

A. A resolution committing the county to develop a local water plan in accordance with Minnesota Statutes 110B and Minnesota Rules Ch. 9300;

B. A resolution by the county authorizing signing of the grant contract and other related documents; and

C. A budget detailing expenses associated with developing a local water plan.

Subp. 3. Plan implementation grant. Any county submitting an application for a plan implementation base or challenge grant must submit the following information:

A. A resolution by the county authorizing the signing of the grant contract and other related documents;

B. Resolutions from each participating local unit of government that identify their role in program implementation and their contribution to the local share of program implementation costs;

C. A detailed work plan and schedule for program implementation during the grant period;

D. A detailed budget for the grant period including the identification of the amount requested in the grant;

E. A list identifying the amount, type, and source of the local share, including cash expenditures, if applicable; and

F. Documents required by state or federal statutes, rules and regulations, including, but not limited to, delegation agreements.

0000.0160 REJECTION OF GRANT APPLICATION

Subpart 1. **Grounds.** An application for a plan development grant or a plan implementation grant shall be rejected by the board for the following reasons:

A. An ineligible applicant;

B. Ineligible costs;

C. A late submittal; or

D. Failure to comply with any requirement of statute or rule.

Subp. 2. **Procedure.** The board shall review each grant application within 30 days after the deadline for application submittal. The board shall notify each rejected grant applicant of the rejection of its application and the reasons for the rejection.

Subp. 3. **Effect of rejection.** A grant applicant whose application is rejected for a reason other than for late submittal has 14 days from receipt of the notice of rejection to correct any deficiencies, if correction is possible. If the application is corrected within the 14 days, the application must be accepted and the project must be ranked with other acceptable grant applications. An application that cannot be or is not corrected must not be further considered. A grant applicant whose application is rejected and not corrected must reapply in a subsequent application period in order to be considered for a grant.

0000.0170 RANKING OF APPLICATIONS

Subpart 1. **Process of ranking.** Upon completion of the review of the grant applications for acceptability, the board shall proceed to rank the acceptable grant applications in order of priority. Each request for which an acceptable grant application has been submitted must be awarded the number of priority points the request is entitled to under subparts 3 and 4. The requests with the highest number of priority points will be given the highest priority. All requests will be given a ranking depending on the number of points awarded. The plan development grant applications shall be ranked separately from the plan implementation grant applications.

Subp. 2. **Review team.** Prior to ranking applications, the board shall establish a review team to evaluate requests. The review team, chaired by the board, shall consist of a representative of the following agencies or organizations: Association of Minnesota Counties, Minnesota Department of Agriculture, Department of Health, Department of Natural Resources, League of Minnesota Cities, Minnesota Association of Conservation District Employees, Minnesota Association of County Planning and Zoning Administrators, Minnesota Association of Soil and Water Conservation Districts, Minnesota Association of Townships, Minnesota Association of Watershed Districts, Metropolitan Council, Minnesota Extension Service, Minnesota Geological Survey, Pollution Control Agency, State Planning Agency and others as the board may determine.

Subp. 3. **Priority points for plan development grant applications.** The following criteria must be used to determine the number of priority points to be awarded in the evaluation of each plan development grant application. The board shall award each request between zero and ten

points under each of the following criteria, depending on how well the application satisfies the criterion. The number of points awarded under each criterion must be added together to determine the application's total point value. This total number must be used to determine the application's overall ranking and priority. The criteria are as follows:

A. The extent to which the proposal demonstrates a high potential for success based on community support and involvement as well as participation, coordination and cooperation of federal, state and local agencies and units of government for water quality protection and improvement;

B. The extent to which plan development will be closely coordinated on a regional scale; and

C. The priority placed on each request by the review team.

Subp. 4. **Priority points for plan implementation grant applications.** The following criteria must be used to determine the number of priority points to be awarded in the evaluation of each plan implementation grant application. The board shall award each request between zero and ten points under each of the following criteria, depending on how well the application satisfies the criterion. The number of points under each criterion must be added together to determine the application's total point value. This total number must be used to determine the application's overall ranking and priority. The criteria are as follows:

A. The extent to which the proposal demonstrates a high potential for successful water and related land resources protection and management;

B. The extent to which the request employs methods which provide a technically and economically feasible means to protect and manage water and related land resources;

C. The extent to which the proposal maximizes water and related land resources protection and management relative to the cost of plan implementation;

D. The extent to which the request is consistent with comprehensive local water plans;

E. The extent to which the request is consistent with state water quality management plans and other applicable state and federal resource management programs;

F. The extent to which the proposal demonstrates a high potential for success based on community support and involvement as well as participation, coordination and cooperation of federal, state and local agencies and units of government;

G. The extent to which the request takes place where local units of government have adopted and implemented authorities or official controls to protect and manage water and related land resources;

H. The number of approved comprehensive local water plans in the county; and

I. The priority placed on each request by the review team.

Subp. 4. **Other considerations.** In assigning points, the board and review team must consider the regional variations that exist in program needs and priorities. Further, the uniqueness or ability of existing state delegated or mandated programs to successfully protect or manage water and related land resources must also be considered.

0000.0180 ALLOCATION OF FUNDING

Subpart 1. **Grant fund allocation.** Within 90 days of the close of an application period, the board shall determine how much of the remaining funds will be made available for plan development and plan implementation grant awards. In deciding how much money to make available for new grant awards, the board shall consider the necessity to have money available for subsequent grant periods, the necessity to have money available for anticipated grant amendments in the next year, and other factors relating to the ability to ensure that money will be available for upcoming projects.

Subp. 2. **Development; implementation split.** Within 90 days of the close of an application period, the board shall determine how much of the funds available for new grants in that application period will be available for plan development and plan implementation grants. In determining the allocation of funds between plan development and plan implementation grants, the board shall give priority to completion of Ch. 110B.04 and Ch. 473.8785 plans.

If the money intended for plan development or plan implementation grants, or both, is not awarded during a grant period, the board may reallocate the funds to the other kind of grant or to a subsequent grant period.

0000.0190 SELECTION OF GRANTEES

Subpart 1. **Ranking.** The board shall complete its ranking of all applications for which an acceptable grant application has been submitted within 60 days of the close of the application period. The board shall rank plan development applications separately from plan implementation applications.

Subp. 2. **Projects funded.** The board shall select those projects that will be awarded grant funds by awarding grants to the highest priority plan development and plan implementation applications within the limits of available funds established under 0000.0180 subpart 2. An application that receives less than 40 points will not be considered for award of grant funds.

Subp. 3. **Board decision.** All decisions of the board in ranking applications and awarding grants must be made at a regular or special board meeting.

Subp. 4. **Timing.** The board shall make its decision on fund allocation, application ranking, and requests to which grants will be awarded within 60 days of the close of the application period.

Subp. 5. **Reapplication.** A grant applicant whose application is not awarded grant funds must reapply in a subsequent application period to be considered for a grant.

0000.0200 GRANT CONDITIONS

Subpart 1. **Amount.** A grant that is made must be for the amount requested by the applicant, up to a maximum in accordance with part 0000.0120 subpart 1.

Subp. 2. **Grant period.** The grant period for a plan development grant will be for a period of two years. The grant period for a plan implementation grant will be for a period of two years and may be extended an additional one year with board approval.

Subp. 3. **Grant contract.** The county must enter into a contract with the board before a grant will be awarded. The contract must include the provisions established in Part 0000.0210.

Subp. 4. Records. The county, or delegated local unit of government, shall maintain all records relating to the receipt and expenditure of grant funds for a period of six years from the date of termination of the grant contract.

Subp. 5. Audit. The county must agree that the books, records, documents and accounting procedures and practices of the county, relevant to this program may be examined at any time by the board or board's designee.

Subp. 6. Annual progress report. The county shall submit an annual progress report to the board by February 1 of each year the grant is in effect. The report must include the following information:

A. A discussion of work progress relative to the application and schedule, and difficulties encountered meeting the schedule during the year;

B. A discussion of the program results appropriate to the work conducted during the year; and

C. A report of expenditures in the year and those anticipated during the upcoming year.

Subp. 7. Eligible costs. No grant funds shall be used to reimburse the county for costs incurred after the end of the contract period.

0000.0210 GRANT CONTRACT

Subpart 1. Contents. The board and the county shall enter into a grant contract. The grant contract must:

A. Establish the term and conditions of the grant;

B. Provide that the county may contract with others, including appropriate local units of government under the terms and conditions specified by the board, to complete the work specified in the contract;

C. Provide that the cost overruns are the sole responsibility of the county;

D. Require that a county is responsible for ensuring that state funds are properly expended even if the work specified in the grant contract is performed by a local unit of government acting on behalf of the county;

E. Require that that county submit periodic progress reports and a final report to the board in a format prescribed by the board; and

F. Incorporate terms and conditions required by federal or state statutes, rules and regulations.

Subp. 2. **Amendments.** A grant contract may be amended upon agreement of the board and the county.

Subp. 3. **Contract period.** Grant contracts for plan development will be for a period of two years. Grant contracts for plan implementation will be for a period fo two years. The board amy allow one year extensions for plan implementation grant contracts.

0000.0220 GRANT PAYMENTS

Subpart 1. **Payment.** The board shall transfer to the county the total amount of the grant promptly after the grant contract is executed as to encumbrance by the Commissioner of Finance.

Subpart 2. **Unencumbered funds.** Any grant funds unencumbered or becoming unencumbered after the end of the contract period shall be returned to the board within one month of that date.

0000.0230 GRANT RECISSION

Subpart 1. **Board action.** The board may rescind a grant if the program is not being completed or implemented in accordance with the terms and conditions of the grant, including time schedules.

Subp. 2. **Agency action.** At the request of a state agency commissioner, the board shall rescind the portion of a grant used to support a program not in compliance.

Sent to Adm. 12/7/89

STATE OF MINNESOTA

GRANT AGREEMENT;

DEVELOPING A COUNTY COMPREHENSIVE LOCAL WATER PLAN

DRAFT

THIS AGREEMENT, between the State of Minnesota, acting through its Board of Water and Soil Resources, hereinafter referred to as the "State," and _____ County, hereinafter referred to as the "County."

WHEREAS, By Laws of Minnesota 1989, Ch.326, Art. 10, Sec. 1, Subd. 4(b), the Minnesota Legislature appropriated funds to the Board of Water and Soil Resources for local water resources protection, which authorizes Counties to develop a County Comprehensive Local Water Plan pursuant to Minnesota Statutes Section 110B.

WHEREAS, The County has passed a Resolution committing the County to develop a local water plan.

WHEREAS, The State has reviewed and approved the Resolution.

NOW, THEREFORE, it is agreed between the State and the County as follows:

1. The Grant.

The State grants to the County Fifteen Thousand Three Hundred Dollars ($15,300.00) under the terms and conditions specified in this Agreement. The County shall match this grant with an equal amount of county funds, either cash or in-kind contributions. A certified copy of the County Board's resolution approving this Agreement and authorizing the county's match for the grant is attached as Exhibit A. A budget detailing expenses associated with developing a local water plan is attached as Exhibit B.

A. Scope of Work

The County is responsible for developing a County Comprehensive Local Water Plan, as described in the Resolution and Budget submitted by the County, in accordance with the procedures described in The Handbook for Comprehensive Local Water planning, prepared by the Minnesota State Planning Agency, which is incorporated herein by reference, and in accordance with the Comprehensive Local Water Management Act, Minn. Stat. Ch. 110B and Minn. Rules Ch. 9300. Expenditures of the state grant funds must conform to the budget as described in Exhibit B.

B. Schedule of Payments

Payment of grant funds in one installment shall be made by the State promptly after the execution and encumbrance of this Agreement.

C. Eligible Costs.

The County shall use the grant funds only for costs, which are necessary and related to the County's duties described in Exhibit B. The State shall have the sole discretion to determine whether the grant funds have been used, or are being used, for eligible costs. All costs determined by the State to be ineligible costs must be reimbursed to the State within 30 days after receipt of notices from the State.

D. Close Out Procedure.

The County shall not expend grant funds after June 30, 1991.

E. Unexpended Funds.

All grant funds which are not encumbered at the end of the grant period described below in paragraph G.1, or shall become encumbered, shall be returned to the State within thirty (30) days after the end of said period or event. The check shall be made payable to the State of Minnesota Treasurer and sent to the Board of Water and Soil Resources in St. Paul, Minnesota.

F. Reports.

The County shall submit to the State an annual report describing expenditures of funds and program accomplishments. In addition, the County shall submit additional reports at any time during the term of this Agreement, upon the request of the State.

G. Term.

1. Effective Date.

This Agreement shall become legally effective upon such date as it is executed as to the encumbrance by the Commissioner of Finance and shall remain in effect until June 30, 1991, or until all the obligations set forth in this Agreement have been satisfactorily fulfilled, whichever occurs first.

2. Cancellation.

This Agreement may be cancelled by the State for cause at any time upon seven (7) days written notice to the County. Cause shall mean a material breach of this Agreement and any supplemental agreement or amendment thereto. In the event of such cancellation, the County shall have until the date of cancellation to "demonstrate" why the Agreement should not be cancelled. If it is determined by the State that the County's default was beyond its control or it was not otherwise in default, the Agreement shall not be cancelled. In the event of such cancellation by the State, all unexpended or unobligated grant funds shall be returned to the State.

H. Amendments.

This Agreement may be amended in writing from time to time by mutual agreement of the State and the County.

I. Audit.

The books, records, documents, and accounting procedures and practices of the County relevant to this agreement shall be subject to examination by the State and the State Auditor. All records shall be retained by the County for six years after the termination of this Agreement. The County shall make its records available at its office at all reasonable times during the retention period for examination and inspection.

2. NONDISCRIMINATION.

A. Human Rights Certification.

If the amount of the grant provided for in this Agreement exceeds $50,000.00 and the District employed more than 20 full-time employees at any time within the previous 12 months, the District shall provide the Agency with a Certificate of Compliance from the Commissioner of Human Rights pursuant to Minnesota Statutes Section 363.073(1988), as amended. The certificate must accompany this Agreement when this Agreement is submitted to the Agency, when applicable.

B. Employment.

The County and its agents and contractors in the performance under this Agreement shall not engage in any discriminatory employment practices and shall in all respects comply with Minnesota Statutes, Chapter 363 and Section 181.59 (1988) and all applicable rules, and subsequent amendments thereto.

3. PROCUREMENT.

The County shall follow all applicable laws in the procurement of goods and services under this Agreement.

4. ANTI-TRUST PROVISION.

The County 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.

5. INDEMNIFY AND HOLD HARMLESS.

The County agrees to indemnify and save and hold the State, its agents and employees harmless from any and all claims or causes of action arising from performance of the Agreement by the County, its agents, contractors, or employees. This clause shall not be construed to bar any legal remedies the County may have for the State's failure to fulfill its obligations pursuant to this Agreement.

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

COUNTY

By _____

Title Chairperson

Dated _____

And

By _____

Title Auditor

Dated _____

COMMISSIONER OF ADMINISTRATION

By _____

Title _____

Dated _____

BOARD OF WATER AND SOIL RESOURCES

By _____

Title _____

Dated _____

COMMISSIONER OF FINANCE

By _____

Title _____

Dated _____

APPROVED AS TO FORM AND EXECUTION
BY THE ATTORNEY GENERAL

By _____
Special Assistant Attorney General

Dated _____

ATTACHMENTS:
A. County Board Resolution (Certified Copy)
B. County Water Plan Budget

Exh. A

RESOLUTION APPROVING GRANT FOR THE DEVELOPMENT OF A COMPREHENSIVE LOCAL WATER PLAN

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

WHEREAS, the State of Minnesota, through its Board of Water and Soil Resources, has made a $ _____ grant available to _____ County to assist the County in developing a Comprehensive Local Water Plan; and

WHEREAS, the terms of the State Grant require to _____ County to contribute matching funds and in-kind goods and service equal to $ _____.

NOW, THEREFORE, BE IT RESOLVED:

THAT THE _____ County Board of Commissioners approves of _____ _____ County accepting the State Grant, the expenditure of $ _____ of County funds and in-kind contributions for the purpose of matching the State Grant, and authorizes the execution of the Grant Agreement by the Chairperson of the Board and the County Auditor.

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

Ayes: _____Nayes: _____

(Certification by County)

EXHIBIT B .

COUNTY WATER PLAN BUDGET

Development of Coordination Process
(includes notices, hearings etc.)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Other Expenses (list) $ _____
$ _____
Sub-total $ _____

Develop Public Information Process
(public information meetings, opinion surveys, etc.)

Examples of expenses include:
- Per Diem
- Postage
- Printing & Publishing
- Recording Secretary
- Mileage
- Office Supplies

$ _____
$ _____
$ _____
$ _____
$ _____
$ _____
In-kind staff hours _____ x $/hr _____ = $ _____
Sub-total $ _____

Develop Detailed Plan Outline, Procedures and Timetable
(inventory & catalog issues, develop task forces, develop workplan, etc.)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Inventory and Assessment of Available Information
(collection and assessments of required data elements)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Consultant Fees (if applicable) $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Identification and Description of Water Related Issues, Problems, and Opportunities
(provide necessary information to establish goals and set priorities)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Consultant Fees (if applicable) $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Development of County Goals, Objectives, and Action Items
(establishes how county will address problems and opportunities)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Consultant Fees (if applicable) $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Development of Detailed Implementation Program
(establishes how county will implement its plan)

In-kind Staff Hours _____ x $/hr _____ = $ _____
Consultant Fees (if applicable) $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Reproduction and Printing of Plan Document
(approximately 80 to 100 copies) $ _____

Public Hearing

In-kind Staff Hours _____ x $/hr _____ = $ _____
Other Expenses (list) $ _____
Sub-total $ _____

Education and Information Programs
(includes education and information activities of SWCD, Extension Service, and county departments relating to water planning, newsletters, displays, public-forums, presentations, etc., including in-kind labor) $ _____

Data Management Systems
(purchase and establishment of EPPL7, SSIS, GIS, including in-kind labor) $ _____

Monitoring and Data Collection Programs
(include items such as identification of sensitive areas, abandoned well surveys, feedlot surveys, surface water monitoring, geologic atlas, etc., including in-kind labor) $ _____

Other Expenses (list) $ _____

TOTAL $$ _____

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Rock County Water Planning
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Luverne, Mn. 56156
Attn: Kris Rodman/Don Briggs

Jim Nichols
Commissioner, Department of Agriculture
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St. Paul, Mn. 55107
(Kim Benson)

Molly MacGregor
Miss. Headwaters Board
Cass County Courthouse
Walker, Mn. 56484

LeRoy Williams
Todd County Extension
Todd County Courthouse
Long Prairie, Mn. 56347

LWRP & P Rules Committee

BOARD OF WATER AND SOIL RESOURCES

Outside Information or Opinions Sought Regarding Proposed Rule Revisions Governing a Cost- Sharing Program for Erosion Control and Water Quality Practices

NOTICE IS HEREBY GIVEN that the Board of Water and Soil Resources is seeking information or opinions from sources outside the agency in preparing to propose revisions to the rule governing a cost-sharing program for erosion control and water quality practices. The current rule is cited as 8400.0100 to 8400.2800 and is authorized by Minnesota Statutes, Chapter 40.036.

The Board requests information and opinions concerning the subject matter of the rule. Interested persons or groups may submit data or views on the subject matter of concern in writing or orally. Written statements should be addressed to: Greg Larson, Board of Water and Soil Resources, 155 South Wabasha Street, Suite 104, St. Paul, Mn. 55107. Oral statements will be received during regular business hours over the telephone at 296-3767 and in person at the above address.

All statements of information and opinions shall be accepted until February 2,1990. Any written material received by the Board of Water and Soil Resources shall become part of the rulemaking record to be submitted to the attorney general or administrative law judge in the event that the rule is adopted.

Dated: 19 December 1989

Jim Birkholz, Executive Director
Board of Water and Soil Resources

DRAFT POLICY

BWSR POLICY FOR USING RIM WETLANDS FOR WETLAND MITIGATION

It shall be the policy of the Minnesota Board of Water and Soil Resources [BWSR] that wetlands enrolled in the RIM Reserve Program cannot be used to mitigate other wetland losses. The BWSR's intent is that wetlands restored or created by the RIM Reserve Program be "net gain" wetlands and not used for "no net loss" mitigation.

An exception may be made to this policy when all or a portion of the wetland restoration costs are supplied by another entity. When this happens, that portion of the restoration paid for from funds other than RIM funds may be credited toward mitigation of wetland losses if agreed to by that supplier of supplemental funds. A consideration for wetland values of the lost wetland vs. the restored wetland may be required.

Lake Region Echo,
Alexandria, MN.
Wed., November 1, 1989 4A

County water plan is great gift



Dennis Dalman

If anybody in Douglas County can come up with a better water plan than the one now proposed, I'd love to see it.

Through 18 months, I have attended public hearings on what has come to be known as the Douglas County Comprehensive Five-Year Water Plan.

It's a fancy name for something very simple: keeping our water as clean as we can keep it.

It's also very complicated: It will take time, lots of data collection, and it will cost a pretty penny.

But through all of its costly complications, every single person living in Douglas County should keep some simple facts in mind.

1.) Good water equals life — survival and recreation.

2.) Good water is not **my** water or **your** water or **their** water — it's everybody's water, or ought to be.

3.) Polluted water is all too often, foolishly, considered **your** water or **their** water — somebody **else's** problem.

4.) We human beings on this planet will not live forever.

5.) Children, also mortal, will need water to sustain them.

6.) Grandchildren and great grandchildren yet to be born will need good water too.

7.) Water good **and** bad flows, like life itself, in unexpected directions, from one source to another.

8.) There is no magic wand to wave away water problems.

9.) Either all of us do our small share to protect water now, or those who follow will pay even more for our mistakes.

10.) Recycling is **the** one small step everyone, without exception, can take to help maintain and improve water quality.

The same simple points could be made about the air we breathe, or the way we ought to treat each other.

But water, like air if not kindness, is the vital legacy of survival itself.

Through all the public hearings on Douglas County's five-year water plan, what impressed me immensely is how so many people **do** care passionately about water. There were farmers, city people, resorters, lake dwellers and fishermen who showed up at the meetings. Sure, some of them have selfish reasons for protecting water. Some wanted higher water levels, some lower water levels, some wanted less state regulation, more local leeway. Some of them griped about this or that element of the five-year plan: fencing restrictions, dumping limitations, taxes, taxes, taxes. But all who spoke up really cared about water quality in one way or another.

The five-year water plan is not Moses in Stone and is not meant to be. But it is a very good beginning — a **comprehensive** plan that attempts to address **and** remedy all of the interconnected water problems that we have brought upon ourselves.

And most of all it is a beginning in public education.

Time and again, at public hearings, I heard well-intentioned people wring their hands about how the plan will forbid them to dump their garbage on their own land. Over and over, it seemed to me, those people were looking for "loopholes" to avoid a simple, common-sensical thing to do: recycle.

I heard rural people wonder aloud about how they can get rid of their stuff if they cannot dump it on their farm property. We're not talking coffee grounds and egg shells. We're talking dangerous leftover pesticides, insecticides, old batteries, motor oil, any number of skull-and-crossbone items.

Some of those people talked as if "dumping" were a sacred generational right, passed from father to son. Well, if it **was** an inviolable right, it ain't no more, folks. Nor should it be.

What those people — and all city people too — need to learn is that "separating" and "recycling" are just as simple as "dumping." Instead of tossing stuff willy-nilly into a "dump," place them in containers, store them in some convenient place. On the next trip to town, bring them in. Bring the bottles, cans and newspapers to recycling centers. Bring the used oil or tires to a garage. Bring the hazardous wastes to a collection site. Recycling, once it's habit, is just another errand among many.

And city people, who live nearer the recycling sites, have even less excuse than rural people not to recycle.

Make no mistake — recycling alone will not "save" our air and water. But it is a very big step in the right direction, if everyone cooperates.

Once people become environmentally-conscious in their personal habits, most will begin to apply pressure directly and indirectly on the industries that are wreaking so much havoc with our world through nuclear wastes, the proliferation of plastics, needlessly-toxic cleaning products, any number of so-called must-have hazards we do not need.

People who get into the habit of conscientious recycling tend to shop more wisely; they begin to recognize unnecessary packaging for the garbage that it is.

Eventually, sooner than later, manufacturers will get the message.

PLEASE POST AND/OR DISTRIBUTE WHERE APPROPRIATE

LEGISLATIVE COMMISSION ON MINNESOTA RESOURCES (LCMR)

Request for Proposals

Offer of detailed RFP and Instructions

The LCMR will be accepting proposals for funding from three areas:

- **Minnesota Future Resources Fund (MS 116P.13) - estimated amount available $18 million**
  (2¢ tax on cigarettes sold)

  For new, innovative, or accelerative projects in the areas of: recreation, water, education, agriculture, forestry, fisheries, wildlife, land, minerals, air, waste

- **Minnesota Environment and Natural Resources Trust Fund (MS 116P.08) estimated amount available $5 million**

  For education, research, collection and analysis of information projects with long-term effects that employ an interdisciplinary approach to promote wise stewardship and enhancement of our state's environment and natural resources.

- **Oil Overcharge Money (MS 4.071) - estimated amount available $2 million**
  (money returned to the state from high price of gas in 1970's.)

  For projects resulting in decreased dependence on fossil fuels and for technology transfer with the same purpose.

To receive a copy of the detailed Request for Proposal contact:

John R. Velin, Director
Legislative Commission on Minnesota Resources
Room 65 State Office Building
100 Constitution Avenue
St. Paul, Minnesota 55155
(612) 296-2406

APPLICATIONS MUST BE RECEIVED AT THE ABOVE ADDRESS BY 4:30 PM, FEBRUARY 16, 1990

The LCMR will review and evaluate proposals during June and July of 1990 and submit its funding recommendations to the Legislature in August of 1990 for funding of projects during the 1992-93 biennium.

ELIGIBILITY: APPLICATION PROCESS IS OPEN TO ALL

The Legislative Commission on Minnesota Resources (LCMR)
1991 Request for Proposals

The LCMR will be accepting proposals for funding from three sources:

- **1. Minnesota Future Resources Fund (MS 116P.13)**
  estimated amount available $18 Million

For new, innovative, or accelerative projects in the areas of: recreation, water, education, agriculture, forestry, fisheries, wildlife, land, minerals, air, waste

- **2. Minnesota Environment and Natural Resource Trust Fund (MS 116P.08)**
  estimated amount available $5 Million.

For education, research, collection and analysis of information projects with long-term effects that employ an interdisciplinary approach to promote wise stewardship and enhancement of our state's environment and natural resources.

- **3. Oil Overcharge Money (MS 4.071) - estimated amount available $2 Million**

For projects resulting in decreased dependence on fossil fuels and for technology transfer with the same purpose.

Proposals must be received at the Commission office by 4:30 P.M., February 16, 1990.

Legislative Commission on Minnesota Resources
65 State Office Building - 100 Constitution Avenue
St. Paul, MN 55155
(612) 296-2668

The Commission will make its funding recommendations to the Legislature in August of 1990.

When acted upon by the 1991 Legislature, and with Commission work program approval, funds will be available for projects during the 1992-93 biennium (July 1, 1991 - June 30, 1993).

You can indicate which funding source you feel appropriate to support your proposal but it is not necessary, as the Commission will ultimately make that determination.

ELIGIBILITY - Applications are open to all

BACKGROUND

The Legislative Commission on Minnesota Resources has developed criteria and established priorities to assist in evaluation and review of proposals. The basis for those criteria and priorities is extensive. It begins with the 16 Legislators who comprise the Commission. They are senior Legislators interested in the area of natural resources and have requested to serve on the Commission. As a Commission they represent more than 250 years of Legislative experience.

Citizen input has been requested and received in a variety of ways. In January of 1989, our Issue Response letter was forwarded to federal, state and local units of government, organizations, individuals, each Legislator and it also appeared in a variety of publications. This letter requested advice and information on priority natural resource issues facing our state. Over 150 responses were received which provided over 500 specific comments/suggestions for the Commission's consideration. During the Summer of 1989 the Commission and its Citizen Advisory Committee held a Regional Forum at each of the following locations: Marshall, Rochester, Fergus Falls, Bemidji, Twin Cities, St. Cloud and Duluth. Over 850 people attended and provided us with more than 2500 issues, comments and suggestions.

On October 28, l989, a Natural Resource Congress was held in St. Paul. The over 200 people attending heard from Natural Resource experts. They also had an opportunity to discuss with the Citizen Advisory Committee and Commission members the initial outline of the Trust Fund Plan.

During the summer of l989, the Commission and its Citizen Advisory Committee spent 20 days visiting resource related sites and programs across the State. The purpose was to observe the results of past and present programs, and gain firsthand knowledge of a wide variety of resource issues.

With all the above as background, the Commission held a retreat on October 30, l989, and established criteria and priorities for the Minnesota Future Resources Fund and the Oil Overcharge Money.

The Citizens Advisory Committee utilizing the results of issues response letters, Regional Forums, Natural Resource Congress and summer factfinding developed and on December 11, l989, presented a draft Strategic Plan for the Environment and Natural Resources Trust Fund to the Commission.

The Commission adopted the Strategic Plan for making expenditures from the Trust Fund on _____1989. The plan identifies criteria and priority areas for funding for the next two years.

PRIORITIES AND CRITERIA

The Commission has adopted priorities and criteria as follows:

- **I. MINNESOTA FUTURE RESOURCES FUND (MS 116 P.13). The issue areas and activities within each issue area are in order of priority.**

ISSUE AREA/ACTIVITY PRIORITIES

#1 -- Recreation (including associated hunting and fishing activities)
Management/Planning - Development - Acquisition - Preservation - Inventory - Restoration -Information - Education -Regulation (Example-All Terrain Vehicles)

#2 -- Water (including both surface and groundwater)
Research - Coordination - Inventory/Monitoring/Education/Information - Preservation/Restoration/Maintenance - Lake Superior/Wetlands Preservation - Management/Planning

#3 -- Education
Coordination - Development - Marketing - Management

#4 -- Agriculture (as it relates to impacts on natural resources)
Research - Preservation - Education - Information - Modification of current practices

#5 -- Forestry
Management - Research - Inventory - Monitoring - Information - Planning - Preservation - Restoration - Development - Urban Forestry - Value Added

#6 -- Fisheries
Research - Preservation - Restoration - Development - Acquculture - Exotic and Non-Traditional Species - Marketing

#7 -- Wildlife
Research - Preservation - Restoration - Development - Education - Management - Modification

#8 -- Land
Management - Research - Preservation - Restoration - Regulation (submerged lands) - Education - Coordination

#9 -- Minerals
Management - Research - Preservation - Reclamation - Regulation - Inventory - Development - Marketing - Value Added

#10-- Air (Includes Indoor)
Research (alternative protection techniques) - Restoration - Education

#11-- Waste
Research - Education/Information - (reduction and abatement) - Management - Planning - Marketing - Reduction

Proposal Evaluation Criteria

These criteria appear in order of priority.
Accountability - credibility of project manager; Innovation; Information Base; New Activities; Acceleration; Other Legislative Analysis; Short Duration (one biennium); Leveraged Funding (non-state); Statewide Significance

• 2. MINNESOTA ENVIRONMENT AND NATURAL RESOURCE TRUST FUND (MS 116P.08)

The LCMR adopted a Strategic Plan (copy attached) for making expenditures from the Trust Fund which establishes the following priorities:

For the 1992-93 biennium priorities are limited to the issue areas of education, research and collection and analysis of information in the identified major natural resource issues of air, education, energy, forestry, land use, minerals, recreation, waste, water and wildlife/fisheries/native plants. These activities do not have a priority order for funding decisions.

Proposal Evaluation Criteria

The review and evaluation of projects will be based on the following:

The Trust Fund Law
(copy attached as part of the strategic plan)

The Trust Fund Vision

All Minnesotans have an obligation to use and manage our natural resources in a manner that promotes wise stewardship and enhancement of the state's resources for ourselves and for future generations. The Trust Fund is a perpetual fund that provides a legacy from one generation of Minnesotans to the many generations to follow. It shall be used to preserve, protect, restore and enhance both the bountiful and the threatened natural resources that are the collective heritage of every Minnesotan. It shall also be used to nurture a sense of responsibility by all, and to further our understanding of Minnesota's resource base and the consequences of human interaction with the environment.

The Criteria for guiding allocations from the Trust Fund

Successful programs:

1. Address significant environmental problems and opportunities with multi-resource implications.
2. Design solutions using a coordinated, multi-disciplinary approach.
3. Encourage innovative and/or interdisciplinary management.
4. Generate significant results.
5. Effectively address problems and opportunities that are consistent with the Vision and have identifiable outcomes.
6. Support deserving programs which lack adequate resources.
7. Support activities whose benefits become available only over an extended period of time.
8. Leverage financial, policy, material or program commitments from private and public entities.
9. Expand on programs by adding value and creating appropriate new programs, but not by supplanting existing funding.
10. Address underlying causes, stress prevention of environmental degradation and emphasize wise stewardship.
11. Demonstrate accountability.

• 3. OIL OVERCHARGE MONEY (MS 4.071)

For projects resulting in decreased dependency on fossil fuels and for technology transfer projects with the same purpose. The priority activities are: Research; Planning; Development; Education; Modification; Marketing; Information

Proposal Evaluation Criteria

Accountability; Innovation; Information Base; New Activities; Acceleration; Other Legislative Analysis; Short Duration (one biennium); Leveraged Funding (non-state); Statewide Significance

FORMAT

Please be brief and concise in preparing your proposal. Limit the text to avoid confusion, redundancy and superfluous information.

The proposal format is designed to provide concise information concerning a proposal. It begins with a brief narrative, followed by: breakdown of the proposal into specific objectives, a budget for each objective, an associate two-year time line indicating when specific events occur and a state associated benefits. If the project exceeds two years, explain the additional time and funding requirements. Most proposals will have a number of objectives. Present similar information for each objective. In addition, put the proposal into a larger "context". Briefly describe how this proposal relates to past/current, public/private funded work in this area.

Send five (5) copies. Be sure a reliable contact name and telephone are specified in case of questions.

LCMR Proposal 1991
Title of Program
Program Manager name, mailing address and telephone number

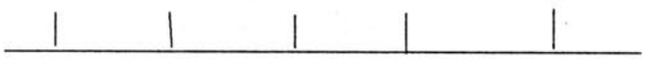
I. **Narrative** -- Four to six lines thumbnail abstract of proposal

II. **Objectives** --List objectives in priority - (Use titles shown for items I-4)

A. Title of objective

1. **Narrative** - one or two lines
2. **Amount budgeted for this objective**
3. **Product timeline** -- Dates for significant interim products (e.g. draft report on lst phase, draft final, key meeting on preliminary findings, etc.) on a 24 month timeline:

Objective A July 91 Jan 92 June 92 Jan 93 June 30, 93



4. **Benefits** -- describe concisely and very specifically the benefits to be realized from completion of this objective
(Repeat for each objective)

III. **Context** (program and budget history)

List and briefly describe relationship to past/ current, public/private funded work in this area.

NOTE 1. Submit 5 copies of proposals in horizontal 8 1/2 x 14 wide sheets, collated, stapled and pages numbered.

NOTE 2. 2 sheets 8 l/2 x 11 will, when reduced and placed side by side, yield the proper form. See the example:

1991 LCMR Funding Proposal *Program Title:* *Biennial Total* *$* *Program Manager:* *Phone:* *Address:* *I. Narrative* *II. Objectives:* *A. Title of objective* *1. Narrative* *2. Amount budgeted* *3. Product timeline* *4. Benefits* *(Repeat for each objective)*	*III. Context: Program and budget history* *For LCMR Use Only*

LCMR PROPOSAL REVIEW

The Commission will utilize a variety of tools in the proposal evaluation process. First, will be the application of the criteria and priorities presented above. Coordinating Committees have been established in the areas of Water, Fisheries, Wildlife, Forestry, Outdoor Recreation, Minerals, Energy, Education and Waste. The role of the Coordinating Committees is to focus on improving proposals and coordination, not peer review. The committee review will illuminate ways and means by which proposals may be strengthened, either technically or in terms of the range of activities included. It will also show areas where increased cooperation and coordination on a proposal might be appropriate. The Citizen Advisory Committee will do an initial screening and provide the Commission with their determination as to which projects fit the guiding criteria and priority activities in the Strategic Plan as well as the Trust Fund law.

A separate peer review process will be conducted on research proposals recommended by the Commission. Commission recommended proposals will be presented to the Policy and Appropriations committees during the 1991 Legislative Session. After Legislative action, the Commission will require a work program to be submitted, reviewed and approved prior to the project beginning.

BOARD OF WATER AND SOIL RESOURCES

December, 1989

SOIL NITROGEN TEST

On-going research to develop a soil Nitrogen test for humid areas, specifically eastern Minnesota and the upper midwest, must continue. A soil Nitrogen test would provide more precise and environmentally correct Nitrogen rate recommendations for corn. The need is important as significant corn production occurs in areas susceptible to groundwater contamination if accurate rates of N are not used.

WATER MOVEMENT IN MEDIUM TEXTURED SOILS

Of the 51 million acres of soils in Minnesota, about 7 million are organic, about 8 million are sandy, about 4 million are clayey and the remainder (about 32 million) are loamy. These loamy or medium textured soils have not been extensively studied in terms of vulnerability to groundwater contamination. Preliminary work in Wisconsin suggests that on certain landscapes medium textured soils may not provide adequate attenuation of groundwater contaminants. The extent of agricultural production on medium textured soils warrants further investigation.

INTEGRATION OF GEOLOGIC ATLAS WITH SOIL SURVEY

Geologic Atlas' and soil surveys are key resources used by local officials and resource managers to guide land use activities. Too often, however, these documents are used independently rather than as complementary information. Part of the problem is due to different scales. Work needs to be done developing prototype supplements that merge the respective information.

WATER QUALITY DEMONSTRATION FARMS

Successful promotion of water protection concepts with land managers requires on-site, real world demonstrations. Demonstration farms offer an opportunity to show, for example, how fertilizer and pesticide use can be limited- yet effectively used- in a realistic agriculture enterprise. To complement current activities, research at the Universities Westport farm should be incorporated in new ventures. Demonstration farms should be located in several geographic areas to represent diversity of soils, crops and climate.

WATER QUALITY BEST MANAGEMENT SYSTEMS

To assist local resource managers in dispensing sound advice to farmers, there is a need to develop water quality systems, or combinations of practices and land treatments, that under given crop, climate, soil, landscape, and geology will minimize water contamination.

EXPERT COMPUTER SOFTWARE

There is a need to accelerate the ongoing development of software that incorporates individual recommendations of items such as fertilizer and pesticides linked to soil and climate conditions.

NORMAL ORDINARY HIGH WATER(NOHW) MARK DETERMINATION

For jurisdictional purposes, location of the high water mark of a waterbody signifies the landward extent of authority. It is important that NOHW determinations are accurately determined using objective criteria. A procedure is needed that incorporates soil, vegetation, and landscape features into NOHW determinations.

LOCATION OF URBAN STORMWATER DETENTION SITES

Stormwater detention ponds are often located on coarse textured, permeable soils. Since urban stormwater contains many contaminants, groundwater may be at risk. Research is needed to confirm the risk and recommend ways to minimize groundwater contamination, including location and design of detention facilities.

LEADERSHIP TRAINING FOR NATURAL RESOURCE LEADERS

Much effort is expended creating new "programs" to solve natural resource management problems. Little direct attention is focused on identifying and cultivating local leaders who can provide local direction and support for resource management initiatives. More effort is needed to support and encourage community leaders to be effective and to empower themselves to deal with natural resource issues.

THREATS TO KEY BIOLOGICAL INDICATORS

Protecting endangered or threatened species on a particular site often requires measures be taken far beyond the site. Nonpoint source pollution control efforts which provide protection on a watershed basis will be important to providing environmental conditions conducive to the protection of certain species. Research is needed to better align watershed protection efforts to meet the habitat requirements of endangered or threatened species.

REMOTE SENSING DATA

Up-to-date, high resolution aerial photography is an essential tool for natural resource management decisionmaking. The federal government no longer provides the needed data, but rather, offers

a matching grant program to states. Matching funds and greater coordination of remote sensing data are ongoing needs.

RESPONSE OF RESTORED, PREVIOUSLY DRAINED WETLANDS

The water quality benefits of restoring wetlands requires further research. The rate of responce, biological succesion and maintenance requirements should also be explored.

December 19, 1989

Cost-share Program Roll-over Funding Recommendations

	Request	Recommendation
Lake	$ 5417	5417*
~~Lake~~ Cook	21649	21649
Carlton	21550	21550
Marshall-Beltrami	1500	1500
Kandiyohi	6000	1000
Olmsted	9000	9000
Waseca	8000	4000
Stearns	30000	15000
Mower	15500	8000
Pennington	32500	32500
Isanti	10000	5000
Washington	15000	8000
Kanabec	9000	9000
Goodhue	20000	7500
Traverse	34500	14700
Aitkin	3800	2000
Norman	307152	8700
Blue Earth	32500	2500
Meeker	4575	4575

Fillmore	30000	7500
Nobles	7000	3500
Carver	60000	60000
Total	$ 684643	$ 252591

Available funds = **$253014**

* This is a request for additional funds to complete a previously approved project.

The above recommendations will fund the top priority project submitted by each district. In those cases where request = recommendation, the district submitted only one project.

With the exception of Kanabec, all districts submitted typical requests for erosion control practices such as terraces and waterways and water quality practices such as animal waste control systems. Kanabec submitted a request to control shoreline erosion on Knife Lake as part of a lake restoration project. The uniqueness involves the use of bullrushes as critical area vegetation.

For additional information on the "roll-over" feature of the cost-share program, refer to the attachment.

December 1988

State Cost-Share Program Funding Opportunities

Since 1984, state cost-share appropriations remain available until spent. That legislative authorization created an opportunity for the state board to reallocate funds.

The MBWSR reallocation process is structured as follows:

December of each year: Reallocation of "rollover" money is made to selected SWCDs based on the readiness of the SWCD to implement projects and the percentage of an SWCD's annual allocation that is encumbered. The funding source consists of previously issued cost-share project funds returned by SWCDs between July and December.

Funds returned from December to June are combined with "new" fiscal year money and disbursed as part of the annual allocation. Ten percent of the annual allocation is designated for special projects. Grants for special projects are made to selected SWCDs based on the readiness of the SWCD to implement projects and the innovative nature of the proposal.

Generally, rollover funding is provided to SWCDs for cost-share projects that would have been locally funded if sufficient funds had been available. Typical projects are erosion control structures, terrace systems, animal waste control systems, critical area stabilization, and grass waterways. Special projects represent unique or innovative efforts that are beyond the scope of the local SWCD program in terms of complexity or cost. Projects funded by the MBWSR include lake aeration techniques to control ice jacking and subsequent lakeshore erosion and critical area stabilization on very steep slopes using a combination of structural and vegetative measures. Promotion and non-project activities are ineligible for rollover or special project funding. Although, streambank, lakeshore and roadside (SLR) projects may be addressed with rollover or special project funds, they are generally funded by the SLR program.

Districts are authorized to use up to twenty percent of new money for their technical and administrative expenses. Rollover and special project grants may not be used for SWCD technical and administrative expenses.