Minnesota Board of Water and Soil Resources. Minutes.

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MINUTES OF THE NOVEMBER 25, 1987 MEETING
OF THE
BOARD OF WATER AND SOIL RESOURCES

Appointed Members in Attendance

Donald Ogaard, Chairman
James Hoese
Ken Schellack
Natalie Haas-Steffen
Don Warner
Doug Bade
John Williamson
Jack Graba
John Brooks, Jr.
Loren Harste
John Boulton
William Cofell
Loni Kemp
Lowell Moen
Eugene Kalmes

Appointed Members Absent

Howard Peterson

Others in Attendance

Mike Robertson, Minnesota Pollution Control Agency
Steve Thorne, Minnesota Department of Natural Resources
Rollin Dennistoun, Minnesota Department of Agriculture
Michael Finn, Minnesota Department of Health
Wayne Anderson, Minnesota Pollution Control Agency
Mr. & Mrs. C. Merle Anderson, Southern Minnesota Rivers Basin Council
Bob Pigeon, Minnesota Association of Soil & Water Conservation Districts
Dwain Otte, Minnesota Association of Soil & Water Conservation Districts
Ken Pederson, Minnesota Association of Soil & Water Conservation Districts
Ron Nargang, Department of Natural Resources, Division of Waters
Gary Nordstrom, Soil Conservation Service
Marilyn Lundberg, State Planning Agency
John Wells, State Planning Agency
Willard Pearson, Study Area II, Lac Qui Parle County
Nels Nelson, BARR Engineering
George Foster, U of M, Ag Engineering

Staff in Attendance

Jim Birkholz
Mel Sinn
Mary Jo Anderson

Call Meeting to Order

Chairman Ogaard called the meeting to order at 9:00 a.m., in Conference Room A of the Department of Agriculture Building, St. Paul, Minnesota.

Chairman Ogaard announced that Ken Tow has resigned effective November 9, 1987. Mr. Tow's resignation was for personal and professional reasons, but left his best wishes for the Board.

Chairman Ogaard has named Jim Birkholz as Interim Office Manager.

Board/Staff Introductions and Get-Together

Chairman Ogaard stated that the Board Members will be meeting the staff this morning in the Board office. He then called a 20-minute recess in the meeting.

Adopt Agenda

87-13 Moved by Schellack, seconded by Cofell, to adopt the agenda as circulated. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Haas-Steffen, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Approval of Minutes from October 21, 1987

87-14 Moved by Hoese, seconded by Kalmes, to accept and approve the minutes of October 21, 1987. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Haas-Steffen, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried. The Board felt that the format of the minutes is fine, with additions, deletions, corrections dealt with as needed.

87-15 Moved by Warner, seconded by Haas-Steffen, to have the Chairman sign the minutes after approval has been made. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Haas-Steffen, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Southern Minnesota Rivers Basin Council (SMRBC) Report - C. Merle Anderson reported that the SMRBC was created in 1971 primarily to coordinate local resource management efforts with state and federal resource agencies. Mr. Anderson congratulated the new Board Members on their appointments to the BWSR. He distributed "Recommendations Concerning Work With Local Governments" for the Board's information and review (see attached). Willard Pearson, Study Area II, Lac Qui Parle County, reported that ten counties in the southwest have signed a ten-year joint powers agreement on flood control structures. This program has been very well received. Seven multi-purpose flood control structures have been built in nine years. They are funded 75 percent from state grants administered by the BWSR. On behalf of Study Area II, Mr. Pearson asked for the Board's continued support on this program. It was stated that the BWSR also provides the Study Area II Engineer and 75% of the office budget.

John Wells commented that the SMRBC was a focal point for the State Planning Agency to relate to local government, and he hopes that will continue through the BWSR. C. Merle Anderson advised the Board Members to network with the Board Representatives. He said the BWSR has a good staff, and things will get done. He asked the Board to keep in touch.

Chairman's Report - Don Ogaard reported that he will be attending various meetings statewide in the next few weeks. The Association of Iowa Counties in Ames, Iowa; the Minnesota Association of Watershed Districts Convention in Fargo/Moorhead; and the Minnesota Association of Soil & Water Conservation Districts Convention in Brainerd.

Chairman Ogaard stated that a concerned issue is targeting the metro area for improved communication between the soil and water conservation districts and the watershed districts. He would also like the Board to take some time and hold a meeting or retreat so the Board can pursue issues direction setting activities in more depth.

Jim Birkholz and Mel Sinn discussed the Key Functional Areas of responsibility of the Board. Natalie Haas-Steffen suggested plan review as a target area. Loni Kemp appreciated the good outline that was distributed on the key functional areas, this is very helpful. It was suggested that a handbook of distributed handouts be made to keep this valuable information together.

Agency Input - Mike Robertson, Deputy Commissioner of MPCA, gave an overview of significant issues that the Board and MPCA will interact on. He requested additional time on the agenda at a future meeting. Mr. Robertson introduced Wayne Anderson, who works with nonpoint source pollution control and water quality issues. Robertson stated that MPCA is the principle agency to control pollution and prevent it. They issue permits for water discharge, air emissions. He distributed the following publications for the Board's information: "MPCA 20 Years of Protecting the Environment"; "The Land Use-Connection"; "A Citizen's Guide to Lake Protection"; "Ground Water in Minnesota"; "Land Use and Your Well"; and "Laws of Minnesota for 1987". MPCA is the designated water quality agency in the state. Technical assistance needs to be coordinated with the Board. The nonpoint source issues team resulted in the Minnesota Clean Water Partnership to begin a grant program for local units of government. They hope to combine federal and state assistance with local units of government. The Clean Water Partnership will open avenues for this. Additional time for the Clean Water Partnership Program was requested for a future meeting. Robertson distributed a listing of the informational meetings for the development of Clean Water Partnership Rules for the Board's information.

Ron Nargang, DNR Director of the Division of Waters, distributed a handout, DNR/BWSR Program Interaction, for the Board's review and information. Those include: Permit Review; Drainage; Local Water Planning; Watershed Districts and Water Management Organizations (WMO); Precipitation Network; Stream Gauging; Observation Wells; Dam Safety; Flood Control and Floodplain Management; RIM and Water Bank; and MN Forestry Improvement Program. A listing of policy actions requiring BWSR attention was also distributed (see attached).

Michael Finn, Assistant Commissioner, Department of Health distributed and discussed a listing of responsibilities (see attached). The Department of Health will make available to the Board a report on abandonment of wells.

Chairman Ogaard adjourned the meeting for lunch at 12:10. The meeting reconvened at 1:10 p.m.

Rollin Dennistoun, Deputy Commissioner, Department of Agriculture, stated that the Department of Agriculture is a regulatory and inspection agency. They are working with MPCA on a container deposit survey and report. The Department of Agriculture was assigned by the 1987 legislature to report back before the 1988 session on the prevention of groundwater contamination. Pesticide legislation implementation, water monitoring funded by LCMR and now an ongoing cooperative program with the Department of Health and Biological Pest Control are major efforts of the Department. The RIM Reserve Program is a cooperative arrangement and it is necessary to utilize the BWSR staff as well as local units to carry this program out. The Department of Agriculture is the delivery structure for the Ag Land Preservation, Gypsy Moth Program, and the Farm Energy Project.

Business Items

Election of Vice-Chairperson - Chairman Ogaard called for nominations of Vice-Chairperson from the floor. John Williamson was nominated. Chairman Ogaard called three times for additional nominations. No additional nominations
87-16 were made. Moved by Moen, seconded by Bade, to cease nominations for Vice-Chairperson. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Haas-Steffen, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried. John Williamson was then appointed as Vice-Chairperson.

Announcement of Appointments - Chairman Ogaard appointed the Dispute Resolution Committee: Don Ogaard, Chairman; Natalie Haas-Steffen, Loni Kemp, Jack Graba, and William Cofell.

Personnel Committee Appointments: Howard Peterson, Don Warner, James Hoese (Chair), William Cofell, and John Boulton.

Personnel Committee Report was distributed (see attached) - William Cofell reported that the Personnel Committee met at 1:30 p.m. on November 24, 1987, to establish major job responsibilities of the Executive Director position. This will be an unclassified position. The position will be advertised and the interview prepared before selecting candidates. Principle responsibilities will include: report to BWSR; legislative initiative; able to communicate effectively with others; direct BWSR programs so goals are obtained. Applications will be taken on an open competitive basis. This position will be under the direction of the BWSR. The Board Members' concerns can be made
87-17 through the Personnel Committee. Moved by Kemp, seconded by Boulton, to advertise the Executive Director position in appropriate journals of SCS professional and water management publications as widely as possible in this short time frame. Affirmative: Ogaard, Boulton, Willilamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Haas-Steffen, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Environmental Quality Board/Water Resources Committee - Loni Kemp reported that a meeting will be held on February 15-16, 1988, at the St. Paul Hotel. EPA has proposed a strategic plan on groundwater which the Water Resources Committee discussed. This plan is a 100-page document calling for strong state and local roles. The state is to have all comments together for EPA by February 4. Kemp stated that the Groundwater Protection Strategy is in an early stage of development. The Pesticide and Nutrient Management Strategy is coordinated with groundwater and nonpoint strategy, which covers 13 topics. Two of those topics are very relevant to BWSR: 1) local restrictions; and 2)

coordination/integration. The Water Resources Committee would like a citizen member review committee - 15 members to review and comment on the strategy. The local role doesn't preempt zoning, fire hazards, and hazardous waste. Discussion followed. Kemp distributed a listing of possible local initiatives (see attached) for review and discussion. Loren Harste suggested not using terms such as farmers and agricultural people. John Brooks, Jr., suggested demonstration techniques, education in getting this out, methodology. Local units need to address the issue. Haas-Steffen felt expanded wordage should be used. Haas-Steffen stated that local units that have ordinancing power need to be looked at. The Board is interested in moving forward, and can act as a facilitator on these issues. Loni Kemp will keep the Board informed of EQB/WRC meetings. Gary Nordstrom stated that SCS is interested in continued coordination with the Board on this.

Part of the EQB/WRC mission is to look at water resource related funding needs of state agencies. Some BWSR needs are: 1) additional staff for programs including comprehensive local water management; 2) enough money in the budget for the Board to operate efficiently; 3) permanent funding source for RIM; 4) implementation of a special grant program for local resource protection projects. The EQB/WRC didn't have time to address these issues at their last meeting. Staff developed these ideas. Board members were encouraged to contribute their ideas.

Staff Reports

Reinvest In Minnesota (RIM) - Wayne Edgerton, RIM Coordinator, introduced Tom Wenzel, RIM Engineer, who is working on a guidebook to help SWCDs with wetland restoration. There are applications to restore about 2,000 acres of wetlands. A slide-tape presentation was shown on RIM regarding living snowfence, wetland restoration, and marginal ag land. A RIM fact-sheet was distributed for the Board's information. RIM Reserve Emergency Fund Requests and Easement Allotment Process were also explained to the Board for their information. Edgerton explained the Priority I Allotment, which is provided to SWCDs who were initially allotted insufficient funds to complete their highest priority easement application. A total of four SWCDs have requested $19,025.31 for Priority 1. Priority 2 Allotment is provided to SWCDs who are funding more than one easement and the SWCD has at least 35% of the required allotment; and the application is being considered is the next highest priority. A total of 24 SWCDs have requested $158,040.24 for priority 2. The deadline for Priority 3 Allotment is December 4, 1987. The pilot living snowfence program is in its first year of existence, as instituted in the 1987 legislative session. This program is designed to plant trees and shrubs along the north and west sides of highways that experience severe snow drifting. A minimum of six rows of trees and shrubs are to be planted within 300 feet of the road right-of-way. No funds were allocated for this program, so $500,000 of unused 1986 RIM Reserve allocation is being used. Nine SWCDs of seventeen applicants have been selected for the pilot program. Six of the nine have living snowfences initiated. The SWCDs selected are Lyon, Lincoln, Blue Earth, Watonwan, Nobles, Cottonwood, Mower, Stevens, and Morrison.

Cost-Share Rollover - Dennis Pond, Grants Analyst, explained that the cost-share allocation goes to SWCDs to share up to 75% of the cost to put conservation practices on the land. The SWCDs contract with landowners. Any unencumbered funds after June 30 must be returned to the state. The money is then rolled-over from year to year. In December and June, the money is reallocated. $205,000 is presently available for reallocation.

Appeal on Return of Funds - Dennis Pond stated that staff audits the SWCDs, and three appeals from SWCDs will be presented to the Board at the December meeting. It was suggested that the SWCD be given the opportunity to come before the Board if they so desire.

Watershed District Project Review Policy - Mel Sinn reviewed the Board's statutory duty to review and provide advisory comments on proposed watershed district projects. Mel recommended that the Board delegate this responsibility to the Chair and staff to allow time at Board meetings for higher priority issues. Mel briefly discussed a draft project review policy contained in the Board members' packets. The policy emphasized: 1) conformance with requirements of state and federal law; 2) conformance with a District's Overall Plan; 3) opportunities for interagency cooperative efforts; 4) use of the management principles contained in the Board's rules governing comprehensive local water planning; and 5) commendation for initiating multi-purpose or multi-jurisdictional resource protection projects. Mel asked Board members to consider the draft policy for action at a future meeting.

Study Area II Office Agreement - Greg Larson, Program Specialist, explained the Southern Minnesota River Basin/Study Area II Flood Control Program. Six structures have been completed (which includes a cooperative project in South Dakota). Two additional structures are being planned: one in Pipestone County, and one in Brown County. Projects and technical office are funded on a 75% state and 25% local basis. A copy of the technical office agreement was distributed for the Board's review. The staff recommended that the Chairman sign the agreement. Every year the Board has an opportunity to renegotiate this agreement.

87-18 Moved by Cofell, seconded by Schellack, that the Chairman sign the Study Area II Technical Office Agreement. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Minnesota Forestry Improvement Program (MFIP) Agreement - Greg Larson explained the MFIP program is designed to complement state and federal forest management efforts on private non-industrial lands. This is a line item in DNR's budget, the money is then transferred to BWSR's budget, who in turn distributes grants to SWCDS. A copy of the 1988 MFIP SWCD allocations and the 1988 transfer agreement was distributed for the Board's review. This program operates on a fiscal year basis.

87-19 Moved by Brooks, seconded by Bade, that the Chairman sign the MFIP Agreement with DNR. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Budget Status - Jim Birkholz asked that Board Members submit their expense claims so budget projections can be done and an analysis can be made. The Board's budget was overviewed. The Board is funded on a biennial basis. The total annual appropriation is $3,813,339.

The Two Rivers Watershed District Boundary Change - Mel Sinn explained that the District petitioned for a minor boundary change. He recommended that the Board approve the draft boundary change order.

87-20 Moved by Cofell, seconded by Moen, to approve the draft. The Two Rivers Watershed District Boundary Change Order. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Board Member Attendance at Functions - The Board Members were invited to the MASWCD Convention on December 6, 7, 8, at Cragun's in Brainerd. There will be a reception for the new Board and Gary Nordstrom, SCS, on Tuesday, December 8, 5:30 - 6:30 p.m. The convention brochure was distributed for the Board's information. The MAWD Convention brochure was also distributed for the Board's information. Cofell suggested that Board Members attend functions in their own geographical area. Chairman Ogaard once again asked that they contact the Chairman when attending various meetings.

Don Warner stated that meal receipts should be kept due to auditing purposes. Anything over 20¢ per mile, you must pay taxes on.

Newsletter Discussion - Chairman Ogaard distributed copies of the "Mentor" newsletter and the Watershed Districts newsletter. It was noted that the SWCDs and WSDs publish separate newsletters which aren't coordinated. The SWCB and SWCD have gone 50/50 on the cost of their newsletter, which is used for information dissemination. Some alternatives with the newsletter are: 1) BWSR to have lead role with input from Associations; 2) potential to combine, but with the Associations taking the lead; and 3) good opportunity for joint cooperation. Discussion will continue on this issue.

Mel Sinn distributed a listing of Board Members phone numbers and addresses with a coordinating map on the back-side for the Board's information.

Additional Agenda Items

Gary Nordstrom, SCS, distributed a packet of SCS information items for the Board's review. Nordstrom stated that SCS is committed to working with the BWSR. He stated that the Kanaranzi-Little Rock project is finished. Some of the ongoing activities of SCS are with PCA, EPA, Rural Clean Water Program, Food Security Act. Copies of the final rules on Highly Erodible Land and Wetland Conservation were distributed for the Board's information. Nordstrom asked the BWSR to consider an information/education program/meeting to sponsor and pull together this Food Security Act training with SCS and BWSR staff involved. SCS is available to help and assist the BWSR whenever possible. Nordstrom asked for additional time at a future meeting to discuss funding.

Discussion - Next Meeting Date - The Board will meet on Wednesday, December 23, 1987.

87-21 Moved by Cofell, seconded by Bade, to adjourn the meeting at 5:00 p.m. Affirmative: Ogaard, Boulton, Williamson, Warner, Kalmes, Bade, Schellack, Moen, Hoese, Brooks, Harste, Graba, Kemp, and Cofell. Opposed: None. Carried.

Respectfully submitted,

Donald Ogaard
Chairman

SOUTHERN MINNESOTA RIVERS BASIN COUNCIL
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September 1987

TO: Board of Water And Soil Resources

FR: Southern Minnesota Rivers Basin Council
C. Merle Anderson, Chair CMA

RE: Recommendations Concerning Work With Local Governments

The Board of Water and Soil Resources (BWSR) will be assuming the duties of three boards, including the Southern Minnesota Rivers Basin Council (SMRBC). The SMRBC has supported active state participation in developing and maintaining a unified, effective working relationship with local governments involved with water and land resource planning. We see the BWSR as the focus for carrying out that role.

We are very pleased by the creation of the BWSR. Our composition, like yours, offered many advantages in developing and implementing resource plans and programs. The SMRBC has had representation from counties, watershed districts, soil and water conservation districts, townships, and unaffiliated citizens.

The effectiveness of the SMRBC has been due to the cooperation and assistance of many agencies and its close ties to local people and units of government. The insight of local leaders, as well as information obtained at public meetings and with policy committees and task forces, provided excellent opportunities to understand local resource issues.

Working closely with state and federal agencies has helped us understand available programs and measures needed to address resource concerns. We then brought this information to those at the local level so they could understand and use available programs and other measures to address resource issues.

We have also assisted counties involved in developing comprehensive water plans under M.S. 110B. We urge you to support this effort so that this planning process continues in a positive manner.

To familarize you with our activities, the following pages list selected past SMRBC activities that relate to BWSR legislative duties. We then recommend actions for BWSR to take in fulfilling continuing needs. We are also enclosing a SMRBC membership list so that you can contact any of our members if you have any questions.

We wish you success in meeting the exciting challenge before you.

SMRBC ACTIVITIES RELATED TO BWSR DUTIES

BWSR CHARGE: COORDINATE RESOURCE PLANS AND ACTIONS

M.S. 110B.35 Subd. 7.
(a) It shall coordinate the water and soil resources planning activities of counties, soil and water conservation districts, watershed districts, watershed management organizations, and any other local units of government through its various authorities for approval of local plans, administration of state grants, and by other means as may be appropriate.

SMRBC Activities

* Formed policy committees composed of leaders from various local units of government in the Minnesota River basin and the southeast Minnesota tributaries of the Mississippi River. Coordinated planning and implementation measures through local policy committees and task forces.

The following groups are especially noteworthy:

The Blue Earth Policy Committee (SMRBC Area I) was a precurser to the 13 counties in south central Minnesota now getting comprehensive water planning underway.

The task forces of nine counties in Southeastern Minnesota were organized for the purpose of protecting water quality. These task forces have now formed a joint powers board to develop comprehensive water plans for southeastern Minnesota. These groups have received national recognition for their ground water protection activities.

SMRBC Area II was established as a policy committee for the SMRBC in a ten county area in southwest Minnesota. The existing SMRBC Area II joint powers board is carrying out measures to attenuate flood damages. The SMRBC worked for the initiation of the flood control grant program for Area II that was administered by the SWCB.

Continuing Need

We have found it advantageous to work with local governments that have been united in some way to deal with resource issues. We have assisted local governments' coordination efforts.
We recommend that the BWSR:

Continue to guide joint powers boards and other local groups that are formed to develop and implement comprehensive water planning or other natural resource planning. We urge staff and board members to attend these local meetings and ensure agencies' assistance is provided;

Facilitate coordination and communication between counties, watershed districts, and SWCDs; and

Encourage coordination between local groups within river basins and key ground water systems to ensure water related issues are addressed in the context of water systems.

BWSR CHARGE: COORDINATE STATE AND FEDERAL INFORMATION AND ASSISTANCE TO LOCAL GOVERNMENTS AND HELP LOCAL GOVERNMENTS UNDERSTAND BROAD PERSPECTIVE

M.S. 110B.10 Subd. 1. General. The board shall:
(2) Coordinate assistance of state agencies to counties and other local units of government involved in preparation of comprehensive water plans, including identification of pertinent data and studies available from the state and federal government;

and

M.S. 110B.35 Subd.7
(b) It shall facilitate communication and coordination among state agencies in cooperation with the environmental quality board, and between state and local units of government, in order to make the expertise and resources of state agencies involved in water and soil resources management available to the local units of government to the greatest extent possible.

SMRBC Activities

* Coordinated federal and state involvement when developing plans with the United States Department of Agriculture (USDA) for the Minnesota River and Southeast Minnesota tributaries.

Minnesota River Basin Report, SMRBB, Feb., 1979

Southeast Minnesota Tributaries Basin Report, USDA, April, 1980

* Promoted the joint Corps of Engineers (COE)/Soil Conservation Service (SCS) implementation study in southwest Minnesota, which is one of a few in the nation.

* Worked with the Water Planning Board and Extension to help local leaders in southeast Minnesota understand water quality issues and to form task forces to protect water quality.

* Held numerous meetings with local groups to explain state programs and policies and to get feedback.

* Participated on the Environmental Quality Board Water Resources Committee (WRC) and played a significant role in development of the WRC's report: "Protecting Minnesota's Water". Brought local concerns to the state forum and carried information about state programs back to SMRBC.

* Recommended that SCS develop plans and gather data on the basis of hydrologic units so that they could better show where resource problems and opportunities were occurring.

Continuing Need

We have seen the need to have a close working partnership between the state and local levels for resource management. We recommend that the BWSR:

Help counties using the CLWMA (M.S. 110B) understand state assistance available, and facilitate communication and coordination between state and local groups doing water planning;

Encourage local governments to use their authorities to address resource problems and opportunities;

Ensure that the state continue its partnership with local governments in water planning;

Alert local governments to federal and state programs that can be used for resource planning and management, and bring in state and federal program managers to provide first hand information about program directions;

Support SCS efforts to plan and collect data based on hydrologic units;

Ensure that EQB Water Resource Committee continues to have strong input from the local level. This could be accomplished by BWSR having two members attend meetings (even if only one vote is allowed); and

Ensure that the BWSR Chair brings local issues to the Environmental Quality Board (EQB) in serving as the BWSR representative on that board. This is a very important responsibility, since the EQB is the state board responsible for coordination of public water resources management activities among state agencies.

BWSR CHARGE: P.L. 87-639 STUDY

M.S. 110B.35 Subd.7
(c) It shall coordinate state and local interests with respect to the study in southwestern Minnesota under United States Code, title 16, section 1009.

SMRBC Activities

* Recommended and ensured initiation of and continued funding for the joint COE/SCS implementation study commonly called the "639" study. This study is underway in five subbasins of the Minnesota River in southwestern Minnesota. It is scheduled to be completed in 1989.

* Coordinated federal, state and local guidance for this study by establishing and chairing an Advisory Committee that presently meets annually. The purpose of this committee is to ensure coordination between agencies and local groups and acceptability of the study results.

* Guided citizen participation efforts. These efforts eventually focused on establishing a steering committee in each subbasin to ensure local involvement. The SMRBC also sponsored numerous local meetings to provide input and direction for the study.

* Promoted broadening the Conservation Reserve Program to include lands that are not highly erodible, but pose a serious environmental threat. Some lands in this study area are not highly erodible but flood frequently and are causing severe problems in the receiving waters.

Continuing Need

This study is nearing completion, but leadership is still needed. We recommend that the BWSR:

Monitor federal work plans to ensure that the projects recommended in the study are developed;

Convene an Advisory Committee meeting in January 1988 and January 1989 to continue the state leadership in guiding the study direction and implementation and to continue coordinating state, federal and local interests;

Guide the study underway in the Redwood and Cottonwood subbasins until both are completed. Continue involvement with the local steering committees and ensure that the study addresses local concerns;

Attend the joint annual Checkpoint Conference of SCS and the COE this fall, and in subsequent years until the study is complete, in order to provide state and local guidance; and

Encourage local groups to use the information gathered in this study to develop policies and use programs to reduce flood damages. This includes emphasizing non-structural measures in appropriate areas.

BWSR CHARGE: PROVIDE INFORMATION ABOUT LOCAL WATER AND SOIL RESOURCE OPPORTUNITIES AND PROBLEMS

M.S. 110B.10 Subd. 1

(3) conduct an active program of information and education concerning the requirements and purposes of sections 110B.01 to 110B.30 in conjunction with the Association of Minnesota Counties;

and

M.S.110.35. Subd. 7

(d) It shall develop information and education programs designed to increase awareness of local water and soil resources problems and awareness of opportunities for local government involvement in preventing or solving them.

SMRBC Activities

* Sponsored public informational meetings with the Association of Minnesota Counties and the Minnesota Association of Soil and Water Conservation Districts to discuss proposals for local water planning. Staff and members attended numerous meetings to inform various groups about pending and final legislation and rule development.

* Developed and promoted position papers that encouraged local governments to use their authorities in managing water related problems such as solid waste management and ground water protection.

* Helped local government leaders understand their own capabilities for water resources planning, and helped them understand the opportunities and assistance available from state and federal agencies.

* Used local policy committees and continually held public meetings for local input.

Continuing Need

We have found that an active program aimed at informing those interested in resource planning and management is needed to prevent misunderstanding and provide guidance.
We recommend that the BWSR:

Take a leadership role in providing information and education about local water planning and management opportunities;

Use advisory committees, seek information from groups already organized for water planning, and sponsor public meetings, to provide information and get necessary feedback about local resource issues; and

Work with the State Planning Agency and EQB in administration of LCMR funds for comprehensive water planning. Work with local projects involved in developing comprehensive water plans to ensure the requirements of the law and rules are understood.

BWSR CHARGE: FORUM FOR LOCAL ISSUES

M.S. 110B.35. Subd. 7
(e) It shall provide a forum for the discussion of local issues and opportunities relating to water and soil resources management.

SMRBC Activities

* Held meetings to bring together groups with concerns about controversial programs in order to clarify issues and try to resolve problems. Provided feedback and recommendations to the state regarding such controversial programs as the Public Waters Program and the Memorial Handwood Forest Program.

* Continually provided information about the numerous state and federal programs available for local use.

* Sponsored meetings and used existing organizations (e.g. AMC) to discuss with interested local groups current or proposed legislation and programs. An example of this is the wide ranging discussions and meetings about the Comprehensive Local Water Management Act.

* Brought important local resource issues to the EQB Water Resources Committee.

Continuing Need

We believe it is imperative to have an ongoing group act as a forum for the discussion of local resources issues.
We recommend that the BWSR:

Provide a forum for the discussion and resolution of resource issues and programs that are sources of state/local controversy;

Use recommendations included in comprehensive local water plans for understanding changes in state programs that may be needed to address problems and issues of concern at local level;

Help local people understand state programs and issues; and

Bring to the EQB Water Resources Committee and EQB issues and recommendations of local significance.

BWSR CHARGE: RECOMMEND PROGRAM CHANGES AND LEGISLATION AS NEEDED

M.S. 110B.35 Subd. 7

(g) It shall report to the governor and the legislature by Oct. 15 of each even-numbered year with an assessment of board programs and recommendations for any program changes and board membership changes necessary to improve state and local efforts in water and soil resources management.

SMRBC Activities

* The SMRBC initiated legislative proposals subsequently enacted. They include:
  Area II flood control cost share grants;
  Private forest management cost share program; and
  P.L. 87-639 Federal COE-SCS Implementation Study.

* The SMRBC assisted with the development of important resource legislation. They include:
  The Comprehensive Local Water Management Act;
  The Creation of the Board of Water and Soil Resources;
  Modifications to the Public Waters Legislation;
  The Streambank, Lakeshore, and Roadside cost share program; and
  The Minnesota Erosion and Water Quality cost share program.

* The SMRBC has examined existing programs and recommended changes to better address resource needs. They include the following recommendations concerning existing programs:
  Recommending to SCS to collect data and develop plans based on hydrologic units rather than political boundaries;
  Recommend to USDA that the Conservation Reserve Program be used for lands that pose serious environmental threats.

Continuing Need

We find that it is imperative to monitor existing programs to assess whether they meet local resource needs.
We recommend that the BWSR:

Monitor existing legislation affecting natural resources;

Monitor local resource concerns and suggestions. Any suggestions in comprehensive water plans should be especially noted;

In the biennial report to the legislature, recommend changes in existing legislation, program emphasis, and proposals for new legislation to ensure that the state local partnership in resource planning is strengthened;

Coordinate development of the BWSR biennial report with the biennial water priority recommendations developed by the EQB; and

Ensure there is state and federal funding for comprehensive local water planning and implementation.

SOUTHERN MINNESOTA RIVERS BASIN COUNCIL
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DNR/BWSR PROGRAM INTERACTION

1) Permit Review

The Division of Waters regulates alterations of the course or cross-section of any protected water as well as permitting appropriations of either surface or groundwater. Statute provides that counties, watershed districts and soil and water conservation districts have 30 days to review and comment on these permits prior to action by the Department.

2) Drainage

Minnesota drainage law was amended in the 1987 legislative session to clarify procedural portions of the law, strengthen grass buffer strip requirements and expand authority for dealing with unassessed drains added to legal ditch systems. Counties and watershed districts are the designated ditch authorities while soil and water conservation districts are involved in resolution of disputes over the "as constructed" grade for ditch repairs. The Department is required to submit reports on any project requiring a redetermination of benefits and has some oversight and enforcement authority over ditch proceedings.

3) Local Water Planning

The BWSR holds the overall coordination and approval responsibility for local water planning. The DNR has substantial data and expertise to offer local units during plan development as well as holding the regulatory and management responsibility for a number of water and land use issues that should be addressed and reflected in local water plans. The Department will be involved in review of plans developed under either Chapter 509 or 10.

4) Watershed Districts and Water Management Organizations (WMO)

The BWSR is administratively responsible for the procedures to establish new districts or alter existing boundaries. The Department is involved in review of these proceedings. In addition, the BWSR and DNR may be involved in joint hearings to resolve disputes over agency actions.

5) Precipitation Network

The State Climatologist is staff to the Division of Waters and is involved in collection and interpretation of a variety of climate data including readings from several hundred rain gauges statewide.

The largest component (nearly 600 gauges) is maintained by soil and water conservation districts using volunteer observers. Collectively this program represents the most comprehensive rainfall monitoring network in the nation.

6) Stream Gauging

Because of the Department's responsibility to regulate water levels, resolve disputes and administer the Dam Safety Program there is a tremendous need for stage and flow information. A variety of agreements exist with local units of government to collect such data.

7) Observation Wells

In order to effectively manage appropriations of groundwater the Department maintains an observation well program of 590 wells. The majority of these well observations (400+) are conducted by soil and water conservation districts under contract with the Department. The program was historically conducted with the U.S. Geological Survey (currently 155 wells) but has been shifted to SWCD's and an additional 60+ wells are currently being transferred.

8) Dam Safety

The level of interaction under the Dam Safety Program is somewhat variable depending on the status of ongoing construction projects. There is a current project underway for joint funding of the Pickwick Mill Project in Winona County.

9) Flood Control and Floodplain Management

There is broad interaction between the Department and local units under both the Floodplain Management Program and the newly created Flood Damage Reduction Program. There are several projects currently underway with watershed districts and cities. In addition, $200,000 of the Division of Waters bonding appropriation is earmarked for Study Area II of the Southern Minnesota River Basin.

10) RIM and Water Bank

A high level of cooperation has existed between the Department and soil and water conservation districts in passage and implementation of the RIM program which included amendments to the Water Bank Program in 1987.

11) MN Forestry Improvement Program

This Department program makes grants available to landowners for intensified management of privately owned forest lands. Priorities and eligible practices are established by the Department while the grants were made by the Soil and Water Conservation Board to SWCD's for local implementation.

POLICY ACTIONS REQUIRING BWSR ATTENTION

Action	Tentative Timeframe
1) Permit Program -Deregulation of selected activities -Delegation of authority to Area Hydrologists -Determination of standard permit conditions and waiver of review period	*March-April '88
2) Drainage -Support implementation of 106 Amendments -Encourage ditch authority compliance -Support training program	*December-Jan. '87-'88
3) Local Water Planning -Coordination of agency review of plans and response to local requests	*ASAP
4) Precipitation Network -Update agency agreement	*non-critical
5) Stream and Lake Gauging -Explore opportunities for joint programming	*April-May '88
6) Observation Wells -Update agency agreement	*Prior to July 1, '88
7) Dam Safety -Finalize funding arrangements for Pickwick Mill Project	*December 1987
8) Flood Control -Agency agreement developed for Study Area II funds	*Dependent on construction schedule.
9) MN Forestry Improvement Program -Update agency agreement	*Dec.-Jan. '87-'88

MINNESOTA DEPARTMENT OF HEALTH

RESPONSIBILITY: To monitor the health-related aspects of water quality.

1. Monitor and analyze public water supplies.

2. Approve treatment of contaminated public water supplies.

3. Enforce water well construction codes.

4. Enforce plumbing codes.

5. Evaluate health risks associated with contaminated water supplies.

6. Evaluate health risks associated with contaminated water supplies.

7. Participate in special studies such as the pesticide study and the landfill study.

ORGANIZATION

The Department is divided into three bureaus:
- --Administrative Bureau
- --Bureau of Health Delivery Systems (Community Health Systems)
- --Bureau of Health Protection

Bureau of Health Protection is divided into four divisions:
- --Health Promotion
- --Environmental Health (drinking water, wells, health risk)
- --Disease Prevention and Control (health effects of environmental exposures)
- --Public Labs (analysis of water samples)

BWSR Personnel Committee Meeting Notes
November 24, 1987

Present: William Cofell
John Boulton
Don Ogaard
Jim Birkholz, staff
Mel Sinn, staff
Cindy Valentine, Dept. of Employee Relations

The process to establish the Executive Director position was outlined:

- Establish major job responsibilities
- Write position description
- Send to Department of Employee Relations who will do a HAY's study to establish salary level, (also send an organizational chart including programs).
- Decide whether the position is classified or unclassified
- Advertise the position
- Conduct interviews
- Select candidate

A draft position description for the executive director position was prepared. Board staff will work with DOER staff to complete the position description by adding the tasks and performance indicators.

William Cofell will present the Committee's report to the full Board on November 25, 1987.

STATE OF MINNESOTA
BOARD OF WATER AND SOIL RESOURCES

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November 17, 1987

TO: Board of Water and Soil Resources Members and Advisors

FROM: Jim Birkholz, Office Manager

SUBJECT: November 25, 1987 Board Meeting

Attached is an agenda for the November 25th meeting. The meeting will start at 9:00 a.m., in Conference Room A of the Department of Agriculture Building, 90 West Plato Boulevard, St. Paul.

Chairman Ogaard asked me to relay to you the following information relative to the agenda items.

- Board/Staff Introductions and Get-Together - This is a chance for board members and staff to get together and become more familiar with each other. Refreshments will be served.

- Former Southern Minnesota Rivers Basin Council (SMRBC) Report - The former chairman of the SMRBC, Merle Anderson, will present issues and concerns relating to the Council's mission which should be considered by the Board as it builds its policy directions.

- Chairman's Report - The board has many important policy development issues to consider. Chairman Ogaard would like to communicate with board members on some ideas and strategies for developing policy and wants to solicit board member input. Staff will present an overview of board overall responsibilities, and agency members and advisors will have an opportunity to identify those areas where these activities interface with board business. Hopefully, this discussion will offer some insight into how the board can actively build policies to form a strong new organization.

AN EQUAL OPPORTUNITY EMPLOYER

- Business Items
  a) Election of Vice-Chairperson - As decided at the last meeting.
  b) Announcement of Appointments - As directed at the last meeting.
  c) Environmental Quality Board/Water Resources Committee - Loni Kemp, the Board's designee to the Water Resources Committee, will brief the board on issues discussed and action taken at the last meeting.
  d) Staff Reports - Responsible staff will present information to the board regarding status of the programs and briefly present information regarding decisions which are needed.
  e) The Two Rivers Watershed District Boundary Change
  f) Board Member Attendance at Functions - Policy needs to be established on direction for board members attendance at functions where they will be representing the board.
  g) Newsletter Discussion - The former boards participated in joint newsletters with the associations. The board needs to discuss future direction for newsletter activities.

Two additional agenda items should be previewed. First, if you have any additional items please forward them to the board office as soon as possible, or feel free to bring them to the meeting.

Lastly, the meeting will conclude with an open discussion on any items that need to be discussed, including consideration of the next formal meeting date of the board.

Look forward to seeing you at the board meeting. Please travel safely.

JB:mja
Enc.

AGENDA

BOARD OF WATER AND SOIL RESOURCES
Conference Room A
90 West Plato Boulevard
St. Paul, Minnesota 55107
November 25, 1987

9:00 a.m. 1. Call Meeting to Order - Chairman Ogaard

2. Board/Staff Introductions and Get-Together - Board Office

3. Adopt Agenda

4. Approval of Minutes from October 21, 1987

9:30 a.m. 5. Southern Minnesota Rivers Basin Council Report - Merle Anderson

10:00 a.m. 6. Chairman's Report
Board of Water and Soil Resources Policy Development

a) Background and Rationale - Don Ogaard

b) Responsibilities - Jim Birkholz and Mel Sinn

c) Agency Issues and Input - Agency Members and Advisors

Noon Lunch

1:00 p.m. 7. Business Items

a) Election of Vice Chairperson

b) Announcement of Appointments
- Dispute Resolution Committee
- Personnel Committee Report

c) Environmental Quality Board/Water Resources Committee - Loni Kemp

d) Staff Reports
- Reinvest In Minnesota Reserve - Wayne Edgerton
- Cost-Share Rollover - Dennis Pond
- Appeal on Return of Funds - Dennis Pond
- Watershed District Project Review Policy - Mel Sinn
- Budget Status

e) The Two Rivers Watershed District Boundary Change

f) Board Member Attendance at Functions - establish policy

g) Newsletter Discussion

8. Additional Agenda Items

9. Discussion - Next Meeting Alternate Date

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November 18, 1987

TO: Board of Water and Soil Resources Advisors

The Board of Water and Soil Resources was created by State law during the 1987 legislative session. The Board came into existence on October 1, 1987. The Board inherits the responsibilities formerly carried out by the Soil and Water Conservation Board, the Water Resources Board, and the Southern Minnesota Rivers Basin Council. In addition, it has broad responsibilities for encouraging and coordinating intergovernmental cooperation for the management of our state's water and soil resources. To accomplish its mission, the Board needs input from many diverse organizations.

At its October 21, 1987 meeting the Board of Water and Soil Resources passed a resolution inviting your organization to be a formal advisor to the Board. Chairman Ogaard asked me to extend this invitation to you and to invite your participation in the Board's activities.

Attached is a copy of the agenda for the November 25 meeting. You or a representative from your organization are most welcome to attend. For future meetings, please contact our office regarding the person you want to receive this information.

We look forward to working with you on our resource management endeavors.

Sincerely,

Jim Birkholz

Jim Birkholz
Office Manager

Attach.

AN EQUAL OPPORTUNITY EMPLOYER

SF-00006-05 (4/86)

DEPARTMENT : Board of Water and Soil Resources

STATE OF MINNESOTA

Office Memorandum

DATE : November 18, 1987

TO : Members of Board of Water and Soil Resources

FROM : Mel Sinn MS

PHONE : 612 - 297-2622

SUBJECT : EQB-WRC Activities

Loni Kemp will give another status report on the activities of the Environmental Quality Board-Water Resources Committee at the Board meeting on November 25th. Loni and I talked about ways to try to inform Board members of the many issues currently being studied and discussed by the EQB-WRC without overloading you with paper. We decided that the best thing to do is generally inform you through brief reports and summaries. When an issue relates directly to basic Board functions and responsibilities, more complete information will be provided to you.

At your last meeting Loni reported on three initiatives: 1) an overall state ground water protection strategy; 2) a state pesticide and nutrient management strategy, and 3) proposals for an Environmental Trust Fund. Staff of various state agencies have drafted issue papers on several topics related to the ground water and pest and nutrient strategies. The following papers are being prepared:

<u>Ground Water</u>

Quality/Quantity Interrelationships
Pollution Source Control
Nonpoint Pollution
Local Role
Monitoring
Standards
Classification
Underground Injection
Data Management Coordination

<u>Pesticide and Nutrient Management</u>

Environmental Review

Aquatic Environment Use
Containers and Unused Products
Local Restrictions/Local Controls
Monitoring
Risk Assessments/Standards
Authorities/Responsibilities
Spills
Irrigation
Coordination/Integration
Education/Information
Biological Controls
Fate/Practice Impacts

Obviously, the Board cannot deal with all these papers, but we felt that the Local Restrictions/Local Controls issue paper is so relevant to the Board's role that it was worthwhile to provide you with a copy. Loni will be framing a couple of policy questions related to the role of local government in managing pesticides and nutrients for your consideration on November 25th. A statewide advisory committee is going to be appointed to advise the EQB on these ground water strategies. Loni will be asking for your suggestions on the committee's composition.

Another topic that the WRC is asking for ideas on is water-related funding needs. A memo on this topic from WRC Chair Martha Brand is attached. The WRC did not have time to consider this topic at its last meeting, so the full Board now has an opportunity to discuss it and submit its ideas to the WRC. We have already identified the need for additional resources for the following items: 1) staff to work with watershed districts and metro watershed management organizations in preparing and updating local watershed plans; 2) staff to fulfill the Board's duties to assist counties in developing comprehensive water plans under Chapter 110B (both 1 and 2 are "catch-up" needs); and 3) adequate funding to allow the Board to operate and to have its members participate in outside meetings on water and soil issues. Jim Birkholz has added two other ideas: 1) permanent funding for the state RIM reserve program; and 2) funding for a Board grant program for local government implementation of resource protection projects. If you have other ideas on where additional state funding is needed for water and soil management, please bring them up on the 25th so Loni can offer them at the next WRC meeting.

BOARD OF WATER AND SOIL RESOURCES
KEY FUNCTIONAL AREAS

1. PLAN REVIEW
   - Soil and Water Conservation District Comprehensive and Annual Plans
   - County Comprehensive Water Plans
   - Metro Watershed Management Organization Plans
   - Watershed District Overall Plans

2. POLICY DEVELOPMENT
   - Develop Conservation Programs
   - Develop Board Strategic Plan
   - Report Recommendations to Governor and Legislature
   - Provide Input to EQB and Other Inter-Agency Work Groups

3. COMMUNICATIONS AND INFORMATION/EDUCATION
   - Conduct Information/Education Programs
   - Facilitate Communication Among Local Units
   - Coalition Building on Resource Issues

4. SERVICE TO LOCAL GOVERNMENTS
   - Provide Rules and Administrative Guidelines for Programs
   - Provide Ongoing Program Implementation and Development Assistance to Local Units
   - Coordinate State Agency Assistance to Local Units for Comprehensive Water Planning
   - Training Programs

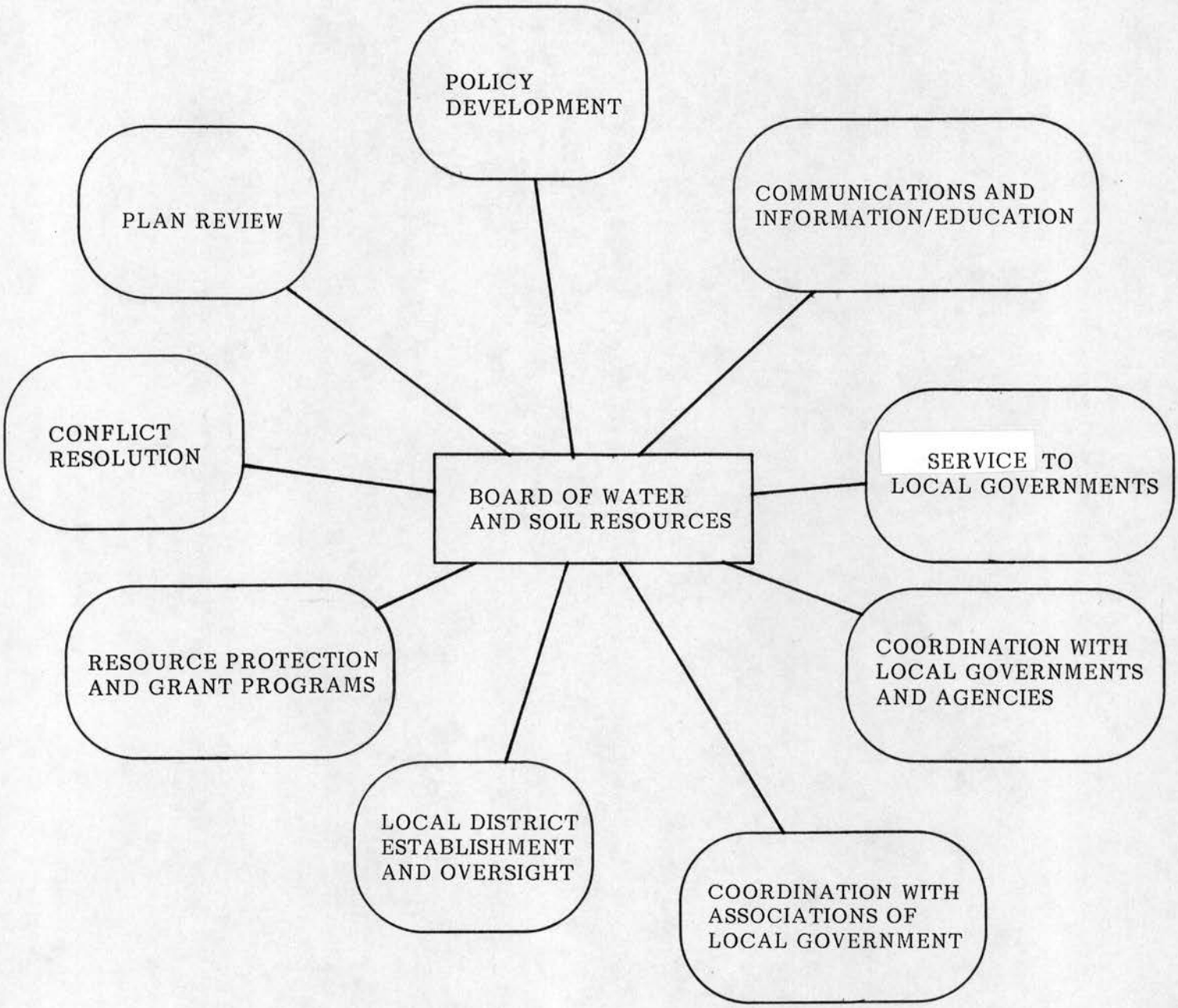
5. COORDINATION WITH LOCAL GOVERNMENTS AND AGENCIES
   - Coordinate Local Water and Soil Management Activities
   - Coordinate with Other Agencies in Local Plan Review
   - Memos of Understanding with Other Agencies
   - Participation on Inter-Agency Committees

6. COORDINATION WITH ASSOCIATIONS OF LOCAL GOVERNMENT
   - Participation in Association Activities
   - Provide Resource Information
   - Assist in Communications
   - Provide Staff Assistance Where Appropriate

7. LOCAL DISTRICT ESTABLISHMENT AND MAINTENANCE
   - Soil and Water Conservation Districts
   - Watershed Districts
   - Watershed Management Organizations

8. RESOURCE PROTECTION AND GRANT PROGRAMS
   - Develop Rules and Administrative Guidelines
   - Grant Allocation and Administration
   - Compliance Audits

9. CONFLICT RESOLUTION
   - Comprehensive County Water Plan Disputes
   - Appeals of Watershed District Decisions
   - Metro Water Management Organization Project Disputes


POLICY DEVELOPMENT
PLAN REVIEW
COMMUNICATIONS AND INFORMATION/EDUCATION
CONFLICT RESOLUTION
BOARD OF WATER AND SOIL RESOURCES
SERVICE TO LOCAL GOVERNMENTS
RESOURCE PROTECTION AND GRANT PROGRAMS
COORDINATION WITH LOCAL GOVERNMENTS AND AGENCIES
LOCAL DISTRICT ESTABLISHMENT AND OVERSIGHT
COORDINATION WITH ASSOCIATIONS OF LOCAL GOVERNMENT

been polluted by nonpoint sources and of geographical areas with waters of the state that have a high potential for water pollution caused by nonpoint sources. The metropolitan council shall conduct the assessment in the metropolitan area, as defined in section 473.121, subdivision 2, in cooperation with the agency. The assessment shall be completed by July 1, 1988.

Sec. 6. **[115.096] FINANCIAL AND TECHNICAL ASSISTANCE; ELIGIBILITY.**

Subdivision 1. **FINANCIAL ASSISTANCE.** The agency may award grants for up to 50 percent of the eligible cost for (1) the development of a diagnostic study and implementation plan, and (2) the implementation of that plan. The agency shall determine which costs are eligible costs and grants shall be made and used only for eligible costs.

Subd. 2. **TECHNICAL ASSISTANCE.** The agency may provide technical assistance to local units of government in order to ensure efficient and effective development and implementation of projects and coordination of projects with other water management activities.

Sec. 7. **[115.097] ELIGIBILITY FOR ASSISTANCE.**

Subdivision 1. **GENERALLY.** To be eligible for the financial or technical assistance or both as provided in section 6, a local unit of government applying for assistance must (1) have authority to coordinate and enter into contracts with local, state, and federal agencies and private organizations, raise funds, and adopt and enforce official controls; and (2) provide the agency with those documents required in subdivision 2.

Subd. 2. **DOCUMENTS REQUIRED.** (a) An applicant for assistance shall submit the following to the agency:

(1) an application form as prescribed by the agency;

(2) evidence that the applicant has consulted with the local soil and water conservation districts and watershed districts, where they exist, in preparing the application; and

(3) one of the following documents:

(i) the comprehensive water plan authorized under chapter 110B;

(ii) a surface water management plan required under section 473.878;

(iii) an overall plan required under chapter 112; or

(iv) any other local plan that provides an inventory of existing physical and hydrologic information on the area, a general identification of water quality problems and goals, and that demonstrates a local commitment to water quality protection or improvement. After July 1, 1991, only projects that are a part of, or are responsive to, a local water plan under chapters 110B, 112, or sections 473.875 to 473.883 will be eligible under this clause.

(b) The document submitted in compliance with paragraph (a), clause (2) must identify existing and potential nonpoint source water pollution problems and must recognize the need and demonstrate the applicant's commitment to abate or prevent water pollution from nonpoint sources in the geographic areas for which the application is submitted.

Sec. 8. **[115.098] AGENCY REVIEW OF APPLICATIONS; RANKING OF PROJECTS.**

The agency shall rank applications for technical and financial assistance in order of priority and shall, within the limits of available appropriations, grant those applications having the highest priority. The agency shall by rule adopt appropriate criteria to determine the priority of projects.

The criteria shall give the highest priority to projects that best demonstrate compliance with the following objectives:

(a) The project demonstrates participation, coordination, and cooperation between local units of government and other public agencies, including soil and water conservation districts or watershed districts, or both those districts.

(b) The degree of water quality improvement or protection is maximized relative to the cost of implementing the best management practices.

(c) Best management practices provide a feasible means to abate or prevent nonpoint source water pollution.

(d) The project goals and objectives are consistent with the state water quality management plans, the statewide resource assessment conducted under section 5, and other applicable state and local resource management programs.

Sec. 9. **[115.099] PLAN IMPLEMENTATION.**

Subdivision 1. **IMPLEMENTATION ACCORDING TO LAW AND CONTRACT.** A local unit of government receiving technical or financial assistance or both from the agency shall carry out the implementation plan approved by the agency according to the terms of that plan, any contract or grant agreement made with the agency and according to sections 1 to 12, the rules of the agency, and applicable federal requirements.

Subd. 2. **REVIEW BY AGENCY.** The director or the director's designee may, at any reasonable time, inspect any project and review the expenditure of financial assistance funds granted by the agency in order to determine whether the local unit of government has complied with subdivision 1.

Subd. 3. **ENFORCEMENT OF AGREEMENTS.** The agency may bring a civil action in district court to recover from a local governmental unit any financial assistance funds used in violation of subdivision 1.

Sec. 10. **[115.10] RULES.**

The agency shall adopt permanent rules necessary to implement sections 1 to 12. The rules shall contain at a minimum:

(1) procedures to be followed by local units of government in applying for technical or financial assistance or both;

(2) conditions for the administration of assistance;

(3) procedures for the development, evaluation, and implementation of best management practices;

(4) requirements for a diagnostic study and implementation plan;

(5) criteria for the evaluation and approval of a diagnostic study and implementation plan;

(6) criteria for the evaluation of best management practices;

(7) criteria for the ranking of projects in order of priority for assistance;

(8) criteria for defining and evaluating eligible costs and cost-sharing by local units of government applying for assistance; and

(9) other matters as the agency and the director find necessary for the proper administration of sections 1 to 12, including any rules determined by the director to be necessary for the implementation of federal programs to control nonpoint source water pollution.

Sec. 11. **[115.101] NONPOINT SOURCE POLLUTION CONTROL PLAN AND PROGRAM EVALUATION.**

For the purpose of coordinating the programs and activities used to control nonpoint sources of pollution to achieve Minnesota's water quality goals, the agency shall:

(1) develop a state plan for the control of nonpoint source water pollution in order to meet the requirements of the federal Clean Water Act;

(2) work through the environmental quality board to coordinate the activities and programs of federal, state, and local agencies involved in nonpoint source pollution control and, where appropriate, develop agreements with federal and state agencies to accomplish the purposes and objectives of the state nonpoint source pollution control plan; and

(3) evaluate the effectiveness of programs in achieving water quality goals and recommend to the legislature, under section 3.195, subdivision 1, any necessary amendments to sections 1 to 12.

Sec. 12. **[115.102] INTEGRATION OF DATA.**

The data collected for the activities of the clean water partnership program that have common value for natural resource planning must be provided and

integrated into the Minnesota land management information system's geographic and summary data bases according to published data compatibility guidelines. Costs associated with this data delivery must be borne by this activity.

Sec. 13. **[115.103] PUBLIC AGENCY COORDINATION.**

Subdivision 1. **PROJECT COORDINATION TEAM; MEMBERSHIP.** The director shall establish and chair a project coordination team made up of representatives of the pollution control agency, department of natural resources, soil and water conservation board, department of agriculture, department of health, state planning agency, Minnesota extension service, University of Minnesota agricultural experiment stations, United States Army Corps of Engineers, United States Environmental Protection Agency, United States Department of Agriculture Agricultural Stabilization and Conservation Service, United States Department of Agriculture Soil Conservation Service, water resources board, metropolitan council, Association of Minnesota Counties, League of Minnesota Cities, Minnesota Association of Townships, and other agencies as the director may determine.

Subd. 2. **DUTIES.** The project coordination team shall advise the agency in preparation of rules, evaluate projects, and recommend to the director those projects that the team believes should receive financial or technical assistance or both from the agency. After approval of assistance for a project by the agency, the team shall review project activities and assist in the coordination of the state program with other state and federal resource management programs.

Sec. 14. **APPROPRIATION AND COMPLEMENT.**

Subdivision 1. The following amounts are appropriated from the water pollution control fund to the pollution control agency:

	1988	1989
(a) For administration and contractual services	$299,500	$348,000

(b) $1,352,500 for grants to local units of government under section 5. This amount is available until expended.

Subd. 2. The complement of the pollution control agency is increased by four positions.

Approved June 3, 1987

CHAPTER 392—H.F.No. 887

An act relating to environment; creating the clean water partnership program for the control of nonpoint source water pollution and providing for administration by the pollution control agency; requiring a state water quality assessment; authorizing technical and financial assistance to local governments; authorizing rulemaking; appropriating money; proposing coding for new law in Minnesota Statutes, chapter 115.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. **[115.091] CITATION.**

Sections 1 to 12 may be cited as the "Minnesota clean water partnership act."

Sec. 2. **[115.092] PURPOSE.**

(a) It is the purpose of the legislature in enacting the Minnesota clean water partnership act to protect and improve surface and ground water in Minnesota, through financial and technical assistance to local units of government to control water pollution associated with land use and land management activities.

(b) It is also the purpose of the legislature to:

(1) identify water quality problems and their causes;

(2) direct technical and financial resources to resolve water quality problems and to abate their causes;

(3) provide technical and financial resources to local units of government for implementation of water quality protection and improvement projects;

(4) coordinate a nonpoint source pollution control program with elements of the existing state water quality program and other existing resource management programs; and

(5) provide a legal basis for state implementation of federal laws controlling nonpoint source water pollution.

Sec. 3. **[115.093] DEFINITIONS.**

Subdivision 1. **APPLICABILITY.** The definitions in this section apply to sections 1 to 12.

Subd. 2. **AGENCY.** "Agency" means the pollution control agency.

Subd. 3. **BEST MANAGEMENT PRACTICES.** "Best management practices" means practices, techniques, and measures, that prevent or reduce water pollution from nonpoint sources by using the most effective and practicable means of achieving water quality goals. Best management practices include, but are not limited to, official controls, structural and nonstructural controls, and operation and maintenance procedures.

Subd. 4. **DIRECTOR.** "Director" means the director of the pollution control agency.

Subd. 5. **LOCAL UNIT OF GOVERNMENT.** "Local unit of government" means a statutory or home rule charter city, town, county, soil and water conservation district, watershed district, an organization formed for the joint exercise of powers under section 471.59, and any other special purpose district or authority exercising authority in water and related land resources management at the local level.

Subd. 6. **NONPOINT SOURCE.** "Nonpoint source" is a land management activity or land use activity that contributes or may contribute to ground and surface water pollution as a result of runoff, seepage, or percolation and that is not defined as a point source in section 115.01, subdivision 15. Nonpoint sources include, but are not limited to rural and urban land management activities and land use activities and specialty land use activities such as transporation.

Subd. 7. **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.

Subd. 8. **PROJECT.** "Project" means the diagnostic study of water pollution caused by nonpoint sources of water pollution, a plan to implement best management practices, and the physical features constructed or actions taken by a local unit of government to implement best management practices.

Subd. 9. **WATER POLLUTION.** "Water pollution" means water pollution as defined in section 115.01, subdivision 5.

Subd. 10. **WATERS OF THE STATE.** "Waters of the state" means waters as defined in section 115.01, subdivision 9.

Sec. 4. **[115.094] CLEAN WATER PARTNERSHIP PROGRAM ESTABLISHED.**

A clean water partnership program is established as provided in sections 1 to 12. The agency shall administer the program in accordance with those sections. As a basis for the program, the agency and the metropolitan council shall conduct an assessment of waters in accordance with section 5. The agency shall then provide financial and technical assistance in accordance with section 6 to local units of government for projects in geographical areas that contribute to surface or ground water flows. The projects shall provide for protection and improvement of surface and ground water from nonpoint sources of water pollution.

Sec. 5. **[115.095] STATEWIDE RESOURCE ASSESSMENT.**

The agency shall conduct an assessment of waters of the state that have

Minnesota Pollution Control Agency

November 20, 1987

TO: Interested Parties

FROM: Timothy K. Scherkenbach TKS
Director
Division of Water Quality

SUBJECT: INFORMATIONAL MEETINGS FOR DEVELOPMENT OF CLEAN WATER PARTNERSHIP RULES

The Minnesota Pollution Control Agency (MPCA), in preparing to adopt rules governing the Clean Water Partnership Program, has set up a series of regional meetings to seek information and opinions from interested persons or groups. The adoption of the rule is authorized by Laws of Minnesota 1987, Chapter 392, which requires the MPCA to adopt permanent rules necessary to implement the Clean Water Partnership Program, to provide financial and technical assistance to local units of government for control of water pollution associated with land use and land management activities.

The regional meetings are scheduled for the following times and locations:

November 30	Owatonna	1:00 p.m. the Department of Transportation Building, 1010 21st Avenue N.W.
December 1	Marshall	10:00 a.m. in Room 217 of the Lecture Center, Southwest State University.
December 2	Detroit Lakes	1:00 p.m. in the Council Chambers of City Hall, 1025 Roosevelt Ave.
December 4	St. Cloud	1:30 p.m. in Section B of the St. Cloud Public Library, at 405 St. Germain.

Phone: 612:296-7202
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December 7	Duluth	1:30 p.m. in Room 608 of the Duluth Government Service Center, 320 West Second Street.
December 8	St. Paul	9:00 a.m. in the MPCA Board Room, 520 Lafayette Road North.

Interested persons or groups who are not able to attend one of the scheduled meetings are encouraged to submit their views, statements or opinions in writing by December 8, 1987 to:

Mr. Gaylen Reetz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Attached is a discussion purposes draft of the proposed rule for your review. Thank you for your interest and involvement in the development of this new program.

TKS:mr

DISCUSSION DRAFT
11/18/87

CHAPTER _____
MINNESOTA POLLUTION CONTROL AGENCY
WATER QUALITY DIVISION

Clean Water Partnership and Federal Nonpoint Source Management Grants

____.____ PURPOSE

____.____ DEFINITIONS

____.____ TYPES OF PROGRAMS

____.____ PROJECT APPLICATION

____.____ REJECTION OF PROJECT APPLICATIONS

____.____ RANKING PROJECT APPLICATIONS

____.____ DIAGNOSTIC STUDY AND IMPLEMENTATION PLAN REQUIREMENTS

____.____ DIAGNOSTIC STUDY AND IMPLEMENTATION PLAN APPROVAL

____.____ MONITORING PLAN REQUIRED

____.____ ANNUAL PROGRESS REPORTS

____.____ AWARD OF PROJECT CONTRACTS FOR DIAGNOSTIC STUDIES AND IMPLEMENTAL PLAN AND PROJECT IMPLEMENTATION

____.____ PROJECT CONTRACT

____.____ SUBCONTRACTS

____.____ PROGRAM ADMINISTRATION

____.____ ELIGIBLE PROJECT COSTS

DISCUSSION DRAFT
11/18/87

CHAPTER _____
MINNESOTA POLLUTION CONTROL AGENCY
WATER QUALITY DIVISION

Clean Water Partnership and Federal Nonpoint Source Management Grants

____.____ PURPOSE

This chapter provides for the administration of the state clean water partnership program and the federal nonpoint source management program.

____.____ DEFINITIONS

Subp. 1. Scope. For the purpose of this chapter, the following terms have the meanings given them.

Subp. 2. Statutory-defined terms. The terms "agency," "best management practices," "local unit of government," "nonpoint source," "official controls," "project," as well as any other pertinent terms for which definitions are given in Laws of Minnesota 1987, chapter 392 and Minnesota Statutes, chapters 115 and 116 have the meanings ascribed to them therein.

Subp. 3. Diagnostic study. "Diagnostic study" means the study to identify water quality goals and objectives for the project through a technical assessment and identification of water quality conditions, land use practices, sources of pollution, and specific water quality problems through monitoring, modeling, data analysis, or other means.

Subp. 4. Implementation plan. "Implementation plan" means the written document which identifies the activities and best management practices necessary to attain water quality goals and objectives in the project area, and the schedule and estimated cost for implementing the project.

Subp. 5. Local share. "Local share" means the valve of cash expenditures and in-kind contributions of labor, equipment, material and real property used and expended on eligible project activities and implementation of best management practices associated with the project.

Subp. 6. Local Water Plan. "Local water plan" means one of the following documents: 1) comprehensive water plan authorized under Minnesota Statutes chapter 110B; 2) a surface water management plan required under Minnesota Statutes section 473.878; 3) an overall plan required under Minnesota Statutes chapter 112; or 4) other local plan that provides an inventory or existing physical and hydrologic information on the area, a general identification of water quality problems and goals, and that demonstrates a local commitment to water quality protection or improvement. After July 1, 1991, only plans that are authorized or required under Minnesota Statutes chapters 110B or 112 or Minnesota Statutes sections 473.875 to 473.883 will constitute a local water plan.

Subp. 7. Project Sponsor. "Project Sponsor" means the local unit of government applying for assistance through the Clean Water Partnership, entering into a project contract and having responsibility for completing the diagnostic study and implementation plan, implementing the project and meeting the program and project contract requirements.

Subp. 8. Project contract. "Project contract" means the grant agreement between the agency and the project sponsor.

Subp. 9. Priority management area. "Priority management area" means that portion of the project area from which the quantity of pollutants impacting water quality is most significant and where the application of best management practices will be the most effective in improving or protecting water quality and its associated uses.

Subp. 10. Project coordination team. "Project coordination team" means the interagency team established in Laws of Minnesota 1987, chapter 392, section 13.

Subp. 11. Water bodies of concern. "Water bodies of concern" means the aquifer, lake, stream, river, or wetland which is the focus of the project protection, improvement and restoration activities.

____.____ TYPES OF PROGRAMS

Under this chapter and Laws of Minnesota 1987, chapter 392 et seq., the agency:

A. May disburse funds from the pollution control fund for:

(1) state matching project grants for development of diagnostic study and implementation plan.

(2) state matching project grants for project implementation.

B. May disburse funds allotted to the state from United States Code, title 33, section 1179, as amended through December 31, 1987. (section 319 of the Water Quality Act of 1987)

____.____ PROJECT APPLICATION

Subp. 1. Notice. The commissioner shall publish in the State Register a notice that applications for Clean Water Partnership projects will be accepted. The notice will contain the deadline date for submittal of applications and will precede the deadline by at least 60 days.

Subp. 2. Complete application required. No local unit of government may be eligible for project grant unless a completed application and supporting information has been submitted to the commissioner by a project sponsor.

Subp. 3. Application. The application for a project grants shall be on the form as provided by the agency.

Subp. 4. Additional information for the application. The project sponsor shall, in addition to submitting the completed application form, submit the following information to the commissioner:

A. A resolution of the project sponsor that authorizes the filing of the application and that designates the official authorized to sign the project application, project contract and other related program documents.

B. Written documentation that the applicant has consulted with soil and water conservation districts and watershed districts in the project area, in preparation of the applications.

C. A local water plan which generally identifies existing and potential nonpoint source water pollution problems and must recognize the need and demonstrate the applicant's commitment to abate or prevent water pollution from nonpoint sources in the geographic areas for which the application is submitted.

D. A plan of study outlining the scope of work.

E. A schedule for completion of the diagnostic study and implementation plan.

F. Resolutions from the local units of government involved in the proposed project acknowledging their intent to pay the local share of project costs and maintain required records.

G. Other documents that are required by EPA regulation or other requirements of the act or other state or federal statutes.

H. Application for project implementation must include the following:

(1) An approved diagnostic study and implementation plan; or other study not funded through the Clean Water Partnership program which meets the diagnostic study and implementation plan requirements and has been approved under section ____.____.

(2) An opinion from the project sponsor's attorney that the project sponsor or a participating local unit of government has the legal authority to implement the implementation plan in the proposed project area.

____.____ REJECTION OF PROJECT APPLICATIONS.

A grant application for a project may be rejected by the agency for the following reasons:

A. Project sponsor does not have authority to carry out the project.

B. Failure to submit the required information.

C. The assistance available through this program does not provide a feasible means to abate or prevent the problems identified in the application and supported documents.

D. There is no public access or use of the water body of concern.

____.____ RANKING PROJECT APPLICATIONS

The agency shall adopt a list of priority for funding project grants from current state appropriations and for which federal grant funds will be requested from current allotments. The list will have three parts, diagnostic study and implementation plan grants, project implementation grants and project implementation grant extensions.

Subp. 1. The commissioner shall rate diagnostic study and implementation plan grants, project implementation grants and project implementation grant extensions into the categories of I, II and III, with category I rating highest and category III rating lowest, with the following respective criteria:

A. Rating of diagnostic study and implementation plan grant requests.

(1) The degree to which the proposed project was identified through the statewide resource assessment, as waters of the state which without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality goals or standards.

(2) The degree to which the proposed project includes public support, as well as the participation, cooperation and coordination between local units of government in the project area.

(3) The degree to which the water body of concern in the proposed project represents a significant resource to the local community and state.

B. Rating of project implementation grant requests:

(1) Using information from the diagnostic study compare the existing water quality and the proposed goals and objectives with the following:

(a) regional lake water quality criteria for lake projects,

(b) water quality standards and regional stream water quality criteria for stream projects, and

(c) water quality standards and maximum contaminate levels set by Minnesota Department of Health (citation) for ground water projects.

(2) Using information from the implementation plan compare the feasibility and cost of implementation in meeting the goals and objectives identified in the diagnostic study.

C. Rating of project implementation grant extension requests in terms of the progress, success and accomplishments.

Subp. 2. Project coordination team recommendation. The project coordination team will recommend to the agency:

A. A formula for allocation of available grant funds among diagnostic study and implementation plan grant requests, project implementation grant requests and project implementation extension grant requests.

B. The order of priority for funding within the categories assigned by the commissioner in ____.____, subp. 1., using the criteria identified in Laws of Minnesota 1987, chapter 392, section 8.

____.____ DIAGNOSTIC STUDY AND IMPLEMENTATION PLAN REQUIREMENTS

Subp. 1. Diagnostic study and implementation plan. A diagnostic study and implementation plan shall be prepared for the project by the project sponsor, their designee or contractor, with assistance from appropriate agencies and units of government.

Subp. 2. Diagnostic Study. The diagnostic study shall include:

A. A statement of purpose.

B. A general description of the project area which includes the following:

(1) Map of the project area.

(2) Aerial photo of project area with surface and aquifer watershed boundaries drawn on.

(3) Description of water resources in the project area with emphasis on the waterbodies of concern.

(4) Description of land use and geology of project area.

(5) Description of population and local economy.

(6) Summary of historical water uses and changes that have resulted from water quality degradation.

C. An assessment of water resources which shall include physical, chemical and biological assessment of the water bodies of concern.

(1) Lake projects shall include:

(a) Physical description - Identification or measurement of lake surface area, maximum depth, average depth, one in ten year low and high as well as average hydraulic residence time, drainage area, tributaries and their estimated contribution to in-flows, seasonal temperature profile, secchi disk transparencies and development of a bathymetric map. Completion of hydraulic budget.

(b) Chemical description - Measurement of dissolved oxygen, total phosphorus, dissolved inorganic phosphorus, total Kjeldahl nitrogen, nitrite plus nitrate nitrogen, total suspended solids, total alkalinity, and chloride concentrations; color; pH; and conductivity. Determine mass loadings of total phosphorus, total Kjeldahl nitrogen, and total suspended solids from major tributaries to the lake. Completion of nutrient and sediment budgets.

(c) Biological description - Measurements of average summer epilimnetic chlorophyll a. Identification of predominant phytoplankton and zooplankton genera and submerged, floating and emergent vascular plant species. Measurement of fecal streptococcus and fecal coliform bacteria where human health may be impacted. Description of historical and current fisheries information.

(2) Stream projects shall include:

(a) Physical description - Identification or measurement of stream length, sinuosity, order, substrate, estimated flow characteristics (minimum flow, maximum flow, mean flow), stream gradient, average width, average depth, Manning's roughness coefficient, channel capacity, bank stability, riparian vegetation, temperature and an assessment of habitat.

(b) Chemical description - Measurement of biochemical oxygen demand, total phosphorus, nitrite plus nitrate nitrogen, ammonia nitrogen, organic nitrogen, total dissolved solids, total suspended solids, and diurnal dissolved oxygen concentrations; turbidity; pH; and conductivity.

(c) Biological description - Measurements of fecal streptococcus and fecal coliform bacteria where human health may be impacted. Completion of invertebrate and fishery assessments using standard benthological and ichthyological techniques. Identification of significant biological habitats and spawning areas.

(3) Aquifer projects shall include:

(a) Physical description - Identification or measurement of the aquifer physical type, size, temperature, saturated thickness, recharge sources, discharge sinks, transmissivity, hydraulic residence time, artificial recharge sources and discharge i.e. sinks (seepage basins, production wells), range of hydraulic gradients, average precipitation, evapotranspiration, underlying lithology, and stratigraphy. Maps and cross-sections of the project area must be included.

(b) Chemical description - Measurement of chemical oxygen demand, total organic carbon, total Kjeldahl nitrogen, ammonia nitrogen, nitrite plus nitrate nitrogen, total phosphorus, chloride, sulfate, calcium, magnesium, iron, manganese, potassium, sodium, and alkalinity concentrations; oxidation potential; pH, and specific conductance. Volatile organic compounds, soluble organic compounds, pesticides and other metals will be required in areas where they are pollutants of concern.

(c) Biological descriptions - Measurements of fecal streptococcus and fecal coliform bacteria where human health may be impacted.

D. A watershed assessment which shall include the following for all projects:

(1) A detailed map of the project area which identifies waterways, roads and topography.

(2) The project area divided into subwatersheds based on hydrological characteristics.

(3) For each subwatershed, identification of the following factors:

(a) Area in urban, cultivated, pasture, permanent vegetation, wooded, water, or wetland land uses.

(b) Domestic animal density and feedlots.

(c) On-site waste water treatment systems.

(d) Existing best management practices.

(e) Storm water conveyance systems including tiling and drainage systems.

(f) Known point and nonpoint sources of pollution.

(g) Estimates of pesticide and fertilizer use.

(h) Soil types, including infiltration characteristics of the soils and erosion prone areas.

(i) Topography.

(j) Well information.

E. An analysis of information and data collected in

____.____ Subp. 2. A. thru D. and other information should be analyzed using appropriate methods and tools including modeling where appropriate to:

(1) identify water quality problems or threats to water quality.

(2) identify the water quality goals for the water bodies of concern.

(3) identify the objectives of the project in terms of:

(a) specific water chemistry, biological and/or physical measurements,

(b) specific watershed accomplishments directed at water quality improvement, and

(c) economic, recreational and/or health factors.

(4) estimate for each subwatershed the pollutants of concern and the target levels of pollutant reduction necessary to meet water quality objectives and goals.

(5) identification and ranking of priority management areas to focus implementation of management practices.

F. Documentation of the methods used to complete the diagnostic study.

Subp. 3. Implementation plan. The implementation plan shall include:

A. A listing of and analysis of need for best management practices which will significantly aid in the achievement of target levels of pollution abatement in the priority management areas. Including:

(1) An estimate of costs for practice installation.

(2) A schedule for implementation.

(3) An estimate of technical assistance needs.

(4) An estimate of pollutant reduction.

B. A project monitoring and evaluation plan identifying procedures and schedules for determining project progress and accomplishment. The project monitoring and evaluation plan shall include:

(1) a monitoring plan which includes the chemical, physical and biological parameters which will be measured to enable comparisons with goals and objectives established in the diagnostic study.

(2) a procedure to document and evaluate the implementation of best management practices.

C. A plan and schedule to implement an information and education program in the project area.

D. An identification of roles and responsibilities of the project sponsor, their representatives and cooperating agencies in implementing the project.

E. A proposed schedule for implementation of the overall project, with emphasis on activities to be implemented the first two years and activities to be implemented in the priority management areas.

F. An estimated budget for implementation of the project. This shall include a detailed budget for the first and second years of implementation, identifying the amount requested through a grant and the sources of local share.

____.____ DIAGNOSTIC STUDY AND IMPLEMENTATION PLAN APPROVAL

Subp. 1. Agency Review and Decision. The commissioner shall approve or disapprove of the diagnostic study and implementation plan within 90 days of its receipt. The commissioner shall approve the diagnostic study and implementation plan if it determines that the plan:

A. meets the requirements for a diagnostic study and implementation plan identified in ____.____,

B. provides a technically feasible means to abate nonpoint source water pollution and project goals, and

C. is consistent with state law.

If a plan is disapproved, the commissioner shall provide the project sponsor with a written statement of its reasons for disapproval.

Subp. 2. Resubmittal. A disapproved diagnostic study and implementation plan may be revised and additional information provided by the project sponsor and resubmitted to the commissioner for approval. Upon receipt of revised portions of the diagnostic study and implementation plan, the commissioner shall follow the same review process as for originally submitted diagnostic study and implementation plan.

____.____ MONITORING PLAN REQUIRED

The project sponsor will submit to commissioner a monitoring plan within sixty days of award of the project contract. The monitoring plan will be revised each year and submitted to the commissioner by January 31st. The commissioner will review the monitoring plan and approve or identify deficiencies in writing within 45 days of its receipt. No reimbursements will be made past March 31st, until the monitoring plan is approved. The monitoring plan shall include:

A. A list of chemical parameters that will be sampled.

B. A list of analytical procedures.

C. A quality assurance and qualify control plan which includes:

(1) objectives for measurements of data in terms of detection limits, precision, accuracy, completeness and the United States Environmental Protection Agency or standard methods numbers.

(2) sampling procedures including site location, station design sample collection contains identification and storage.

(3) identification of laboratory.

D. Monitoring frequency.

E. Techniques that will be used to interpret the data.

____.____ ANNUAL PROGRESS REPORT AND MID-YEAR UPDATE

Subp. 1. Annual Progress Report. The project sponsor shall submit an annual progress report to the commissioner within 30 days after December 31st. The report shall include the following information:

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

B. A discussion of the project findings, appropriate to the work conducted during the year.

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

D. A discussion and summary analysis of monitoring data and a discussion of the changes in water quality which appear to have resulted from the protective and restorative activities implemented during the year.

E. Water quality monitoring data collected during the year must be included in the format required by the commissioner to be entered into the United States Environmental Protection Agency Data Storage and Retrieval System (STORET).

Subp. 2. Mid-year Update. The project sponsor shall provide to the commissioner a mid-year update within 30 days of June 30th. The mid-year update shall include a brief report on project progress and difficulties encountered in meeting the proposed schedule in all phases of the project.

____.____ AWARD OF PROJECT CONTRACTS FOR DIAGNOSTIC STUDIES AND IMPLEMENTATION PLANS AND PROJECT IMPLEMENTATION.

The commissioner may award contracts for diagnostic studies and implementation plan grants and project implementation grants, within the limits of available state appropriations and current allotments of federal funds.

____.____ PROJECT CONTRACT.

Subp. 1. Exclusive Use of Project Funds. The project sponsor shall use all state and federal grant funds disbursed to it through the project contract exclusively for the purposes described in the project contract.

Subp. 2. Contract Period. The period in which the funds may be allocated through the project contract shall be no more than two years for a diagnostic study and implementation plan. The period for project implementation project contract is three years. The commissioner may extend the project contract an additional period if reasonable progress is being made in project implementation.

Subp. 3. Contract Amendments. The project sponsor may request the commissioner to amend the project contract.

Subp. 4. Non-Discrimination. During the performance of the contract neither the project sponsor, nor those with whom the project sponsor subcontracts for all or part of the work to be performed under this contract shall: (1) Discriminate against any person with respect to hire, tenure, compensation, terms of employment, upgrading of employment, facilities, privileges or conditions of employment; (2) Refuse to hire persons seeking employment; or (3) Discharge an employee; (4) Exclude any person from participating in, deny them the benefits of, or discriminate because of race, color, creed, religion, national origin, sex, marital, status, status with regard to public assistance or disability.

Subp. 5. Records Maintenance. The project sponsor shall maintain accurate, current and complete records that fully disclose the amount and disposition of all state and federal grant funds disbursed under the contract. Such records shall also account for: Total project cost, property purchased, program income, and documentation of compliance with applicable statutes, regulations, and the conditions of the contract. Such records shall be available to authorized representatives of the agency or the United States Environmental Protection Agency for examination and audit and shall be maintained for a minimum of three years from the expiration date of the project contract.

Subp. 6. _____. The project contract will include other items the commissioner determines necessary for administration of the contract.

____.____ SUBCONTRACTS.

The project sponsor may subcontract for the performance of any or all of the work to be performed in the project. All subcontracts shall be entered into in accordance with state and local law and necessary for and directly relate to the completion of the project.

Subp. 1. Responsibility. The project sponsor shall be responsible for the satisfactory and timely completion of all work required under any subcontract entered into for work, and for payment of such subcontracts.

Subp. 2. Submittal to commissioner. The project sponsor shall submit a copy of all subcontracts to the commissioner. Any subcontract exceeding $20,000 in grant funds shall be submitted to the commissioner for approval before the subcontract becomes effective.

Subp. 3. Subcontracts to individuals. Subcontracts between the project sponsor and individuals or between the project sponsor and a representative that will be contracting with landowners for the installation of best management practices will be called a best management practice agreement. The best management practice agreement must list the best management practices and establish the conditions and considerations under which the individual agrees to install the best management practices listed, consistent with the implementation plan.

A. The best management practice agreement must include:

(1) The name and address of the individual the agreement is with.

(2) The best management practices to be installed, the estimated total practice cost, the amount to be funded by the project and the schedule for applying the practices.

(3) The operation and maintenance requirements.

(4) A requirement to not adopt any land use or practice which defeats the purposes of the best management practices.

(5) A provision stating the project sponsor will provide technical assistance during the required operation and maintenance period for the best management practices.

(6) A nondiscrimination clause.

B. The agreement period shall be from the day the agreement is signed until fifteen years from the date the last practice in the agreement is installed.

Subp. 4. Failure to Fulfill Agreement. If the recipient fails to fulfill any terms of the agreement, including failing to install, operate and properly maintain the practices of the agreement, the amount of the project funds received by the individual shall be repaid to the project sponsor. The project sponsor will forward the repayment to the agency.

Subp. 5. Change in Ownership. If a change in ownership or land use or management occurs during the agreement period, repayment of project funds by the cost share recipient shall be required unless at least one of the following conditions exists:

A. The new owner or operator assumes in writing operation and maintenance of the best management practices.

B. It is demonstrated to the project sponsor that the change in land use or management will not result in the degradation of existing water quality.

____.____ PROGRAM ADMINISTRATION

Subp. 1. Reimbursement procedures.

A. The project sponsor shall submit a request for reimbursement of expenditures for each of the standard calendar quarters ending March 31st, June 30th, September 30th, and December 31st. Submittal of requests for reimbursement for periods less than a standard quarter shall be subject to approval by the commissioner.

B. All reimbursement request will be submitted on the forms provided by the agency.

C. All reimbursement requests will require supporting documentation identified in the project contract.

Subp. 2. Advance. Upon execution of the project contract and approval of a monitoring plan and prior to request for reimbursement, the project sponsor may submit a request for an advance of funds up to the following limits:

A. ten percent of the amount of project contracts less than or equal to $1,000,000, and

B. five percent of the amount of project contracts exceeding $1,000,000.

Subp. 3. Final Payment. The agency shall pay the project sponsor the balance of the eligible project costs after project completion, agency approval of the request for payment which the project sponsor has designated "final payment request" and the agency has verified the project sponsor's compliance with all applicable requirements of this chapter and the contract. The final payment request shall be submitted by the grantee promptly after project completion.

Subp. 4. Withholding of funds.

A. The agency may authorize the withholding of ten percent of the project expenditure eligible for reimbursement where the agency determines, in writing, that a project sponsor has failed to comply with the project contract, satisfactory implementation or reporting requirements until the agency is satisfied the project has satisfactorily been completed.

B. The agency shall withhold payment of the amount of any indebtedness to the agency, unless the commissioner determines that collection of the debt will impair accomplishment of the project objectives and that continuation of the project is in the best interest of the program.

Subp. 5. Additional Local Share. The project sponsor may include the following in the calculation of local share:

A. Projects receiving state clean water partnership funds may include up to twenty percent state and federal funds in their local share.

B. Projects receiving federal funds from United States Code, title 33, section 1179, as amended through December 31, 1987 (Section 319 WQA 87) may include up to ten percent state funds in their local share. No federal funds can be considered local share.

____.____ ELIGIBLE PROJECT COSTS. Project costs eligible for reimbursement are those costs reasonable, allotable and necessary for the project sponsor to complete the diagnostic study and implementation plan and implement the project.

Subp. 1. Eligible Activities. The following activities are eligible projects costs:

A. Activities and costs necessary to meet the requirements of the diagnostic study and implementation plan, which were approved in the application, project contract, including water quality monitoring, data analysis, modeling;

B. The cost of design and layout of best management practices to control nonpoint sources in the priority management areas;

C. Inspection of installation and operation and maintenance procedures for best management practices;

D. Development and implementation of information and education materials and activities;

E. Fiscal and project management, including preparation annual progress report, scheduling activities, meetings;

F. Development of necessary official controls;

G. Other activities determined by the commissioner to be necessary to develop and implement the project.

Subp. 2. Implementation of Best Management Practices. Practices to control the following nonpoint sources are eligible project costs when identified as significant nonpoint sources of pollution in an approved diagnostic study and implementation plan:

A. Uplands and undeveloped rural lands.

B. Streambanks and shorelines.

C. Feedlots and livestock waste management areas.

D. Lawns, parking lots, streets, roofs and other areas associated with public office buildings, schools, libraries, parks and similar buildings and areas.

E. Ground water recharge areas.

F. Residential on-site human domestic waste systems where a local unit of government has adopted official control to require inspection of installation and maintenance of systems.

G. Other sources determined by the agency to meet the objectives of the project.

Subp. 3. Ineligible Costs. The following practices, sources and activities are not eligible for reimbursement:

A. Best management practice installation, operation or maintenance started prior to the project.

B. Activities and pollutants covered by the National Pollutant Discharge Elimination System Permit Program, Minnesota State Disposal System Permit Program, Minnesota Superfund, federal Superfund.

C. Industrial processes and land directly related to industrial processes including plant yards, immediate access roads, drainage ponds, refuse piles, storage piles, or areas and material product loading areas.

D. Commercial operations and processes and lands directly related to commercial operations and processes including:

(1) Tank farms and fuel refilling;

(2) Coal storage yards;

(3) Salt storage yards;

(4) Stock yards;

(5) Grain elevators;

(6) Railroad yards;

(7) Salvage and junk yards; and

(8) Airport runways, terminals and fueling areas.

F. Activities covered, required as part of or as a condition of a permit or requirement of solid waste rules.

G. Activities funded through state or federal grants for wastewater treatment plants.

H. Active and abandoned mining activities.

I. Building and utility construction.

J. Highway and road construction.

K. Dredging of harbors, lakes and ditches.

L. Activity or control measures intended primarily for flood control.

M. Operation and maintenance of best management practices.

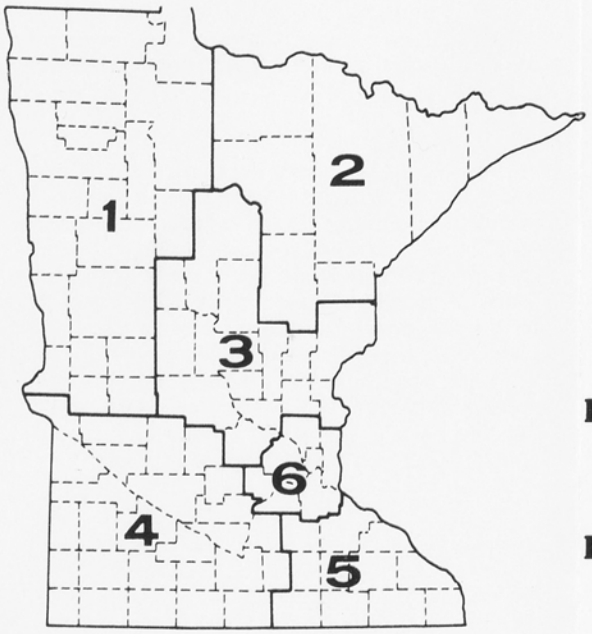
O. Practices required to control spill from bulk storage of pesticides, fertilizers, petroleum and similar materials.

P. Practices required to control industrial wastes.

Q. Practices required to properly store toxic or hazardous materials.

R. Other practices or activities determined by the commissioner not to meet the objectives of the program.

MINNESOTA'S PROTECTED
WATERS AND WETLANDS
PERMIT PROGRAM



For aditional information and assistance, contact the appropriate Regional Office or the Division of Waters in St. Paul.

Department of Natural Resources Regional Offices

Region 1 2115 Birchmont Beach Road N.E.
Bemidji, MN 56601
(218) 755-3973

Region 2 1201 East Highway 2
Grand Rapids, MN 55744
(218) 327-4416

Region 3 1601 Minnesota Drive
Brainerd, MN 56401
(218) 828-2605

Region 4 Box 756, Highway 15 South
New Ulm, MN 56073
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Region 5 P.O. Box 6247
Rochester, MN 55903
(507) 285-7430

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St. Paul, MN 55155-4032
(612) 296-4800

What types of work can be done without a DNR permit?

These projects do not require permits provided all listed conditions are met:

Project Restrictions

Beach Sand Blankets

- Clean, inorganic sand or gravel free of pollutants and nutrients.
- No more than 6 inches thick, 50 feet wide along the shore or one-half the lot width (whichever is less), and 10 feet waterward of the Ordinary High Water Mark.
- Local watershed district and zoning officials given at least 7 days prior notice.
- Site is not a posted fish spawning area.
- Installation of sand or gravel may only be repeated once at same location, not exceeding same amount and dimensions of the original sand blanket.

Rock Riprap (for shore protection)

- Natural rock only at least 12 inches diameter or larger.
- No more than 5 feet waterward of the Ordinary High Water Mark.
- Conforms to natural alignment of shore and does not obstruct flow of water.
- Minimum finished slope no steeper than 3:1 (horizontal to vertical).
- Site is not a posted fish spawning area, designated trout stream, nor along the shores of Lake Superior.

Streams With a Watershed Less Than 5 Square Miles (3,200 acres)

- No permit is required to construct a bridge or culvert, or to fill or excavate the bed of a protected watercourse having a total drainage area, at its mouth, of 5 square miles or less, provided:
  - County zoning officials and local Soil and Water Conservation District are given at least 7 days prior notice and determine the project will not result in downstream erosion or sedimentation.
  - The project will not divert the water to a different watershed.
  - The project will not impound water by damming the watercourse.
  - The watercourse is not an officially designated trout stream.

Debris Removal

- No permit is required to remove debris such as trees, logs, stumps and trash as long as the original alignment, slope or cross-section of the lake, marsh or stream bed is not altered.

Repair of Public Drainage Systems

- No permit is required to repair a lawfully established public drainage system (Judicial Ditch, County Ditch, etc.) provided:
  - The repair complies with the definition set forth in Minnesota Statutes, Section 106.A.701, Subdivision 1 (Public Ditch Law).
  - The repair does not affect significant fish and wildlife habitat or protected vegetation (such as state or federal wildlife management areas, designated scientific and natural areas, etc.)

Seasonal Docks and Floating Structures

- Removed from water on a seasonal basis (before winter freeze-up).
- All components removable from lake or stream bed by nonmechanized means.
- Will not be a hazard to navigation or endanger public health and safety.
- Site is not a posted fish spawning area.
- Will not include fuel handling or sewage facilities.
- Is not used or intended to be used for human habitation, as a boathouse or as a marina.
- Allows for free flow of water beneath it.

Permanent Docks (on lakes only)

- Dock is a single linear structure not more than 6 feet wide.
- Does not exceed 50 feet in length, or extend into water that is more than 4 feet deep, whichever is less.
- No more than one dock per waterfront lot.
- Will not obstruct navigation or create a water safety hazard.
- Site is not a posted fish spawning area.
- Will not include fuel handling or sewage facilities.
- Is not used or intended to be used for human habitation, as a boathouse, or as a marina.
- Allows for free flow of water beneath it.
- Lake must be 500 acres or larger if dock is built on wood pilings.
- Lake must be 2,500 acres or larger, and site must preclude the use of a dock on wood pilings if dock is built on rock filled cribs.

Boat Ramps

- Privately owned ramps:
  - Site can support ramp without pilings, dredging, or other special site preparations.
  - Constructed only of gravel, natural rock, concrete, steel matting, or other durable inorganic material.
  - No more than 6 inches thick, 12 feet wide along shore, and 10 feet waterward of the Ordinary High Water Mark or into water depth of 4 feet.whichever is less.
  - No more than 5 cubic yards of excavation and 5 cubic yards of fill allowed for a stable base.
  - Site is not a posted fish spawning area.

- Publicly owned ramps:
  - Same as above, except ramp can be up to 24 feet wide and 20 feet waterward of the shoreline or into water depth of 4 feet, whichever is less, with up to 30 cubic yards of fill and 60 cubic yards of excavation.

Removal of Existing Structures

- The original lake, marsh or stream bed is restored.
- All parts of the structure, including footings or pilings, are removed.
- The structure is not a water level control device and is not on an officially designed trout stream.

Water Level Control Structures (on streams only)

- Contributing watershed above the structure is 300 acres or less.
- Structure is not considered a "dam" under State Dam Safety rules.
- Structure is not on an officially designated trout stream.

Temporary Bridges (on streams only)

- Stream bank can support bridge without pilings, foundations, culverts, excavation, or other special site preparations.
- Nothing is placed in the bed of the stream.
- Capable of removal for maintenance and flood damage prevention.
- Bridge is firmly anchored at one end and can swing away during flooding.
- Minimum 3 feet of clearance between lowest portion of bridge and normal summer stream flow.
- Consistent with floodplain, shoreland, and wild, scenic or recreational river ordinances.

Low Water Ford Crossings (on streams only)

- No special site preparation necessary.
- Normal summer flow does not exceed 2 feet in depth.
- Normal low flow is not restricted or reduced.
- Crossing conforms to the shape of the natural stream channel.
- Original stream bank no higher than 4 feet.
- Constructed only of gravel, natural rock, concrete, steel matting or other durable, inorganic material not more than 1 foot thick.
- Graded finished slope no steeper than 5:1 (horizontal to vertical).
- Graded banks must be seeded or mulched.
- Site is not an officially designated trout stream, wild, scenic or recreational river or officially designated canoe and boating route.

Maintenance of Storm Sewers, Agricultural Drain Tile and Ditch Outlets

- Outlet must have been maintained and functioning within the last 5 years.
- Maintenance work does not alter the original course, current or cross-section of the lake, marsh or stream bed.

Installation of Agricultural Drain Tile Outlets

- Outlet involves no construction of an open ditch and is not intended to drain a protected water or wetland.
- Bank is restored to the natural slope.
- Installation does not require channelization, dredge or filling.
- Except for the tile, no permanent structure is placed in the lake, marsh or stream bed.

Minnesota's Protected Waters and Wetlands Permit Program

Introduction

Minnesota, the land of over 10,000 lakes, has had a long history of water related development. Public recognition and appreciation of the values served by our waters has had a similar history. Since 1937 the State of Minnesota has attempted to conserve our water and protect the rights of the public to use and enjoy them. Because of the great variety of water resources present in Minnesota, an equally broad program has been created under Minnesota Law to maintain the natural benefits of these resources for future generations.

Minnesota's waters have been grouped into two categories for purposes of regulations which encourage the wise use of many types of water basins and watercourses. The waters involved have been identified as "protected waters" or "wetlands" depending on size, physical characteristics and ownership of surrounding lands. Any person, agency or organization proposing to change the course, current, or cross-section of Minnesota's protected waters or wetlands, must obtain a permit from the Department of Natural Resources (DNR). The DNR's authority to require such permits is established in Minnesota Statutes Chapter 105.

Maps identifying protected waters and wetlands are available for inspection at DNR Regional Offices, County Soil and Water Conservation District Offices, County Auditor Offices and County Zoning Offices. Maps are available for purchase from the Minnesota State Documents Center, 117 University Avenue, St. Paul, MN 55155, (612) 297-3000 or 1-800-652-9747.

Why does the State regulate "protected waters" and "wetlands"?

The identification of protected waters and wetlands was adopted to make it easier to determine all waters where a state (DNR) permit is required for any change in their course, current, or cross-section. The underlying philosophy is that the state not only has an interest in protecting the amount of water contained in these lakes, marshes and streams, but also has an interest in protecting the container (i.e., lake, marsh or stream) which confines these waters.

The reason for such conservation measures is simple — these lakes, marshes and streams provide very real benefits to all of the people of Minnesota. These waters provide the obvious benefits of maintaining vital habitat for our fish and wildlife, as well as places to fish, hunt, trap, boat, swim and indulge in other types of outdoor recreation. However, the most important benefits provided by these waters are less obvious to many of us. These areas store or hold substantial amounts of water which can then seep into the ground to recharge our underground waters (many cities and rural families rely entirely on well water). Because water is held in these lakes, marshes and streams, it also furnishes a place for excess water to go in times of flooding, as well as an important reserve of surface water during times of drought. Last, but not least, these areas are nature's sewage treatment systems. They provide an ideal environment for aquatic vegetation and animal organisms to purify much of the water we have contaminated with suspended soil (from erosion), nutrients (from fertilizer and animal wastes — including man) and other pollutants.

What are "protected waters"?

"Protected Waters" include all of the following:

1. All water basins assigned a shoreland management classification, except wetlands less than 80 acres classified as natural environment lakes. Check with your county zoning official to determine whether this applies to your lake.

2. All waters which have been determined to be public waters or navigable waters by a court of law.

3. All meandered lakes, except those which have been legally drained. Meandered lakes were identified by the General Land Office Surveys in the late 1800's.

4. All water basins previously designated by the Commissioner of Natural Resources for specific management purposes such as trout lakes or game lakes.

5. All water basins previously designated as scientific and natural areas.

6. All water basins located within and totally surrounded by publicly owned lands.

7. All water basins where the State of Minnesota or the federal government holds title to any of the beds or shores, unless the owner declares that the water is not necessary for the purposes of public ownership.

8. All water basins where there is a publicly owned and controlled access which is intended to provide for public access to the water basin.

9. All natural and altered natural watercourses with a total drainage area greater than two square miles and all designed trout streams (by the Commissioner of Natural Resources) regardless of the size of their drainage area.

What are "wetlands"?

"Wetlands," which are regulated and protected under Minnesota law, include and are limited to, all types 3, 4 and 5 wetlands that have not been designated as "protected waters," which are 10 or more acres in size in unincorporated areas, or 2½ or more acres in size in incorporated areas. The wetland types are defined in Circular 39, Wetlands of the United States, 1971 Edition, U.S. Department of Interior.

The following are some typical examples of "wetlands":

Type 3 Inland Shallow Fresh Marshes

Soil is usually waterlogged during the growing season, often covered with as much as 6 inches or more of water. Vegetation includes grasses, bulrushes, cattails, arrowheads, smartweeds, and other emergent aquatic vegetation.

Text: Bruce Gerbig, Dave Milles & Sandy Fecht
Photos: Mike Mueller & Molly Comeau-Shodeen
Layout: Jim Zicopula
revised 8/87

Type 4 Inland Deep Fresh Marsh

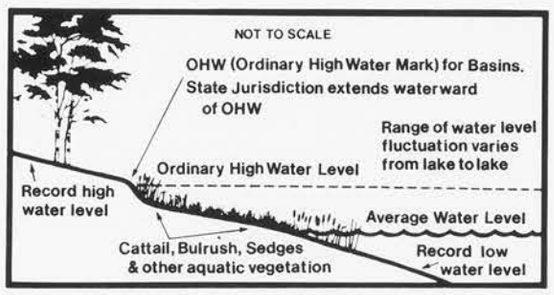
Soil covered with 6 inches to 3 feet or more of water during growing season. Vegetation includes cattails, reeds, bulrushes, and wild rice. Open water areas may contain pondweeds, naiads, coontail, water milfoils, and other submergent aquatic vegetation.

Type 5 Inland Open Fresh Water

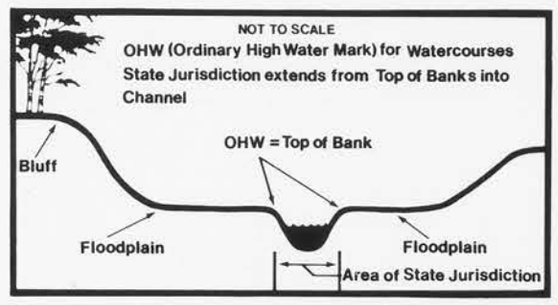
Water is usually less than 10 feet deep and is fringed by a border of emergent vegetation. Vegetation includes pondweeds, naiads, coontail, water milfoils and other submergent aquatic vegetation.

What is the boundary of "protected waters" and "wetlands"?

The boundary of protected waters and wetlands, for regulatory purposes, is defined by the "ordinary high water mark" (OHW). The OHW is the elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape. Generally, it is the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial.



For watercourses, the OHW is the elevation of the top of the bank of the channel. For reservoirs and flowages, the OHW is the operating elevation of the normal summer pool. Any work done below the OHW is within the beds of protected waters or wetlands and is therefore subject to the permit authority of the Department of Natural Resources.



What right does the public have to gain access to "protected waters" and "wetlands"?

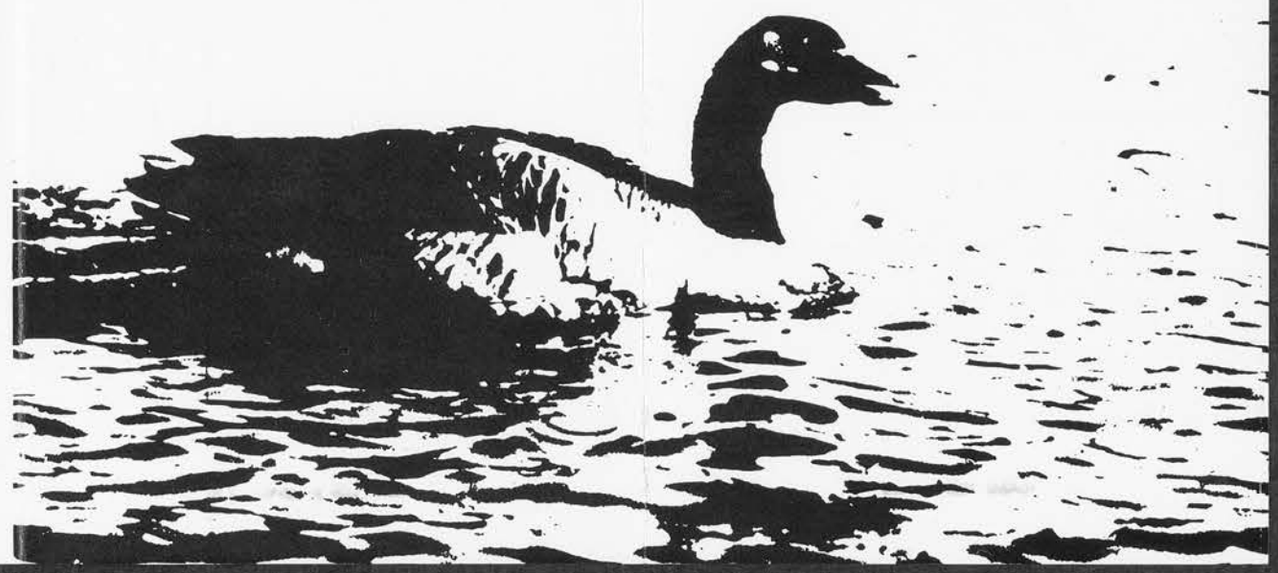
The identification of protected waters and wetlands does not affect existing laws or regulations on access, trespass, taxes, accident liability or land ownership. It is quite common to find the land containing a protected water or wetland in private ownership, even though the protected water or wetland is subject to state permit requirements. The designation of protected waters and wetlands does not entitle anyone to cross private land in order to gain access to the water.

When is a DNR permit needed?

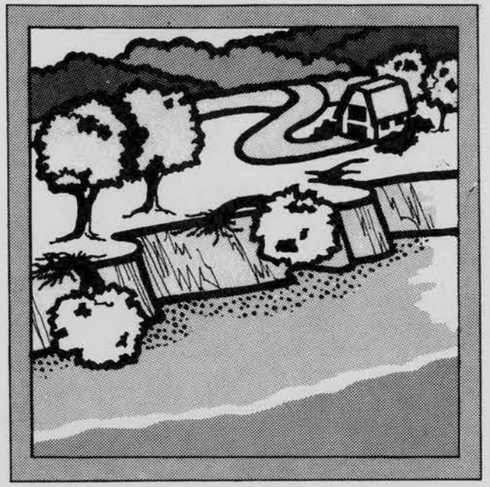
Any work done below the ordinary high water mark (OHW) of protected waters and wetlands requires a permit from the Department of Natural Resources (except those projects specified on back). Typical examples of projects requiring a permit include: draining, filling, dredging, channelizing, construction of dams, harbors or permanent offshore structures, and placement of bridges and culverts.

Some projects will not require permits from the Department of Natural Resources if certain conditions are met. Local units of government and other agencies, however, may still require permits for these projects. Projects within the beds of protected waters and wetlands not listed in the following exemptions require permits from the Department of Natural Resources. Projects that are determined to be detrimental to public values (including but not limited to fish and wildlife habitat, navigation, water supply, and storm water retention) may be modified or rejected by the DNR.
BEFORE INITIATING ANY PROJECT AFFECTING PROTECTED WATERS OR WETLANDS, contact your local Conservation Officer or the Regional Hydrologist by writing or phoning the appropriate Regional Office.

NOTE: Any work exceeding the limits listed below and/or any other work in protected waters or wetlands without a permit is a violation constituting a misdemeanor and is punishable by imposition of fines up to $700 and/or 90 days in jail.



RIPRAP SHORE AND STREAMBANK PROTECTION



PERMIT REQUIREMENTS AND CONSTRUCTION GUIDELINES

Any project constructed below the **ordinary high water mark** (OHW) which alters the course, current, or cross-section of protected waters or wetlands is subject to the regulatory jurisdiction of the Department of Natural Resources. For lakes and wetlands, the OHW is the highest elevation which has been maintained as to leave evidence upon the landscape. It is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the OHW is the elevation of the top of the bank of the channel. For reservoirs and flowages, the OHW is the operating elevation of the normal summer pool.

A permit is **not** required from the Department of Natural Resources for riprap shore and streambank protection installed within the following restrictions.

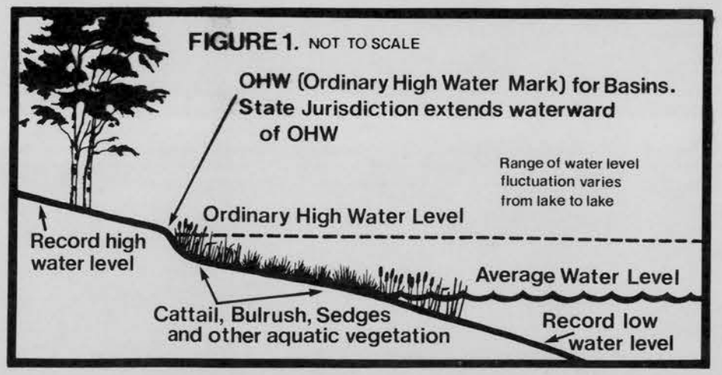
Local units of government and other agencies, such as the U.S. Corps of Engineers, however, may require a permit for this project. **BEFORE INITIATING ANY PROJECT,** contact your local Conservation Officer or the Regional Hydrologist (see map, page 1).

A Department of Natural Resources permit is **not** required if the riprap is installed within **all** of the restrictions listed below:

1. The riprap shall consist of natural rock only, measuring 12″ diameter or larger.
2. The riprap shall conform to the natural alignment of the shore or streambank.
3. The minimum finished slope shall be no steeper than 3 feet horizontal to 1 foot vertical (3:1).
4. No materials shall be placed more than 5 feet waterward of the OHW, nor obstruct the flow of water.
5. The site is not along Lake Superior, on a designated trout stream, or a posted fish spawning area.

If the proposed riprap shore protection **cannot meet all** of the preceding restrictions, a permit from the Department of Natural Resources is required. Contact the appropriate Regional DNR Office or the Division of Waters in St. Paul for the necessary application forms.

Riprap shore protection not requiring DNR permits shall be placed according to the following guidelines.



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DEFINITION

Riprap is defined as coarse stones, boulders, or rock, loosely laid against an existing bank or shore for the purpose of preventing or controlling erosion. Only 12″ diameter or larger natural rock riprap shore protection may be installed without a permit. This size of natural rock will reduce movement by natural forces. Riprap is generally placed to prevent erosion by wave action and currents. It is also useful in preventing burrowing animals (muskrat, beaver, etc.) from undermining bank stability.

LOCATION

The placement of riprap should be limited to the area subject to erosion. This information pamphlet outlines guidelines for the placement of natural rock riprap without a permit. The installation of other types of riprap will require a permit.

Riprap shall be attempted only where site soils are capable of supporting riprap. Such soils may include various combinations of sand, silt, and clay. Soils such as peat and muck are not capable of supporting riprap.

PLACEMENT

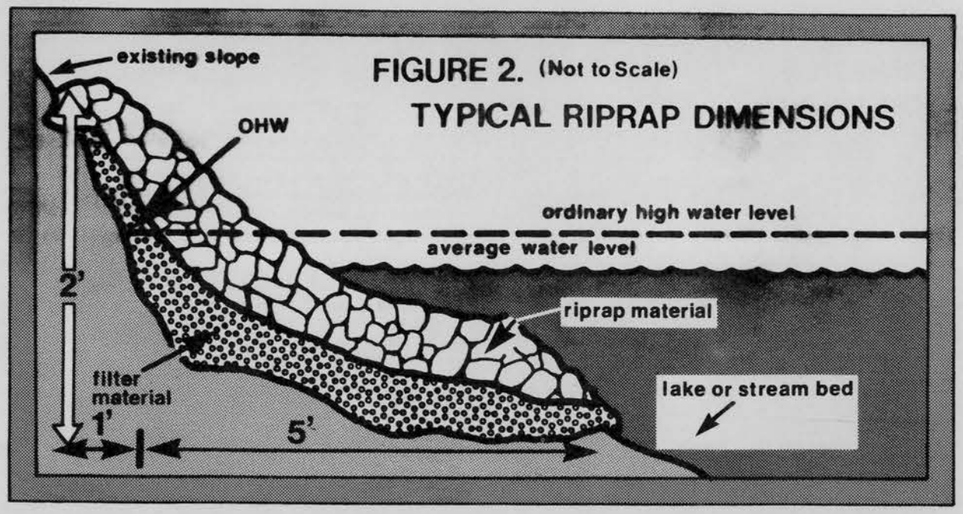
Dumped stone is the most flexible and will adjust itself to uneven bank settlement. In most cases, dumped stone is also the least costly. Hand-placed riprap should be roughly square or rectangular to facilitate placement by hand or derrick. Handplaced riprap is easily disrupted by minor settling.

IMPORTANT NOTE: Please be advised that Figures 2, 3 and 4 are provided as typical situations. Due to the high cost of riprap shore and streambank protection and the variation in soil types and design, it is advisable that you consult with a professional engineer before beginning any construction.

CONSTRUCTION

Riprap shall be installed with a minimum finished slope of 3:1. No riprap or filter materials shall be placed more than 5 feet waterward of the OHW (see Figure 2). A severely eroding bank may require filling in with a greater depth of natural rock before a stable slope may be achieved. Gently sloping banks are more stable for riprap and result in fewer failures. The extent of riprap into the water should be minimized since flow and wave action can cause stability problems.

A transitional layer of gravel, small stone, or fabric shall be placed between the fine material of an embankment and the riprap materials. The purposes of the filter are to (1) prevent fine embankment material from being pulled through the riprap materials, (2) distribute the weight of the overlying riprap to prevent settlement, and (3) to provide relief to hydrostatic pressures inside the embankment.



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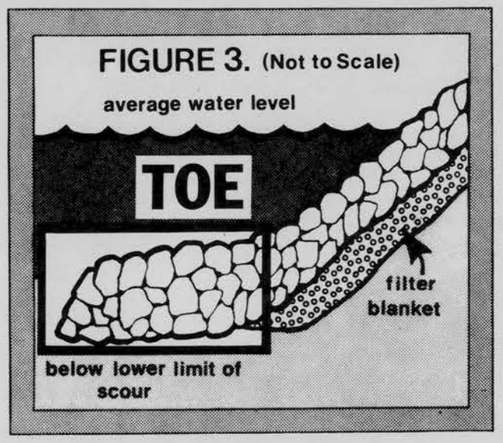
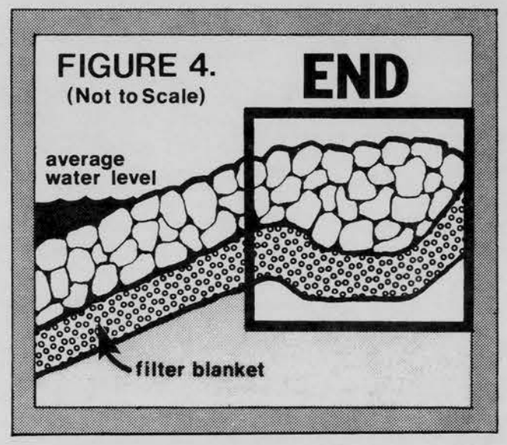
Well-graded gravel, crushed stone, and filter cloth should be used as filter materials. The sizes of the filter materials must be larger than the original bank materials and smaller than the riprap. If well-graded gravel exists naturally, no filter blanket is needed. If not, a 6" filter blanket is recommended.

Where gravel or crushed stone is unavailable or excessively costly, filter cloth is an alternative. Filter cloth, an artificial fabric which allows water to pass through while retaining the bank materials, has been used successfully with riprap. Brands* used successfully include: Bidim-C-22 (Monsanto); Typar 3401 (DuPont); Polyfilter-X (Carthage Mills); and Mirafi 140 (Celanese). Consult the manufacturer's specifications for the correct type of filter cloth for your particular shoreline.

*THIS DOES NOT CONSTITUTE ENDORSEMENT OF THE ABOVE BRANDS.

Riprap placement should include toe and end protection, particularly in controlling stream bank erosion. Toe and end protection is accomplished by placing the largest rocks and the thickest portion of the riprap in position as shown in Figures 3 and 4. In some instances, excavation may be required to provide sufficient depth of toe and end protection. Minor excavation or filling for riprap projects using hand tools may be done without a permit. If mechanized excavation or filling is necessary, a DNR permit is required.





MAINTENANCE REQUIREMENTS

All riprap requires maintenance. Proper filter blanket thickness, rock size, placement, and slope will prevent frequent maintenance. All riprap, however, will experience some displacement. The desired slope, thickness, and rock surface should be restored when needed. All maintenance should be done in conformance with the above-mentioned criteria.

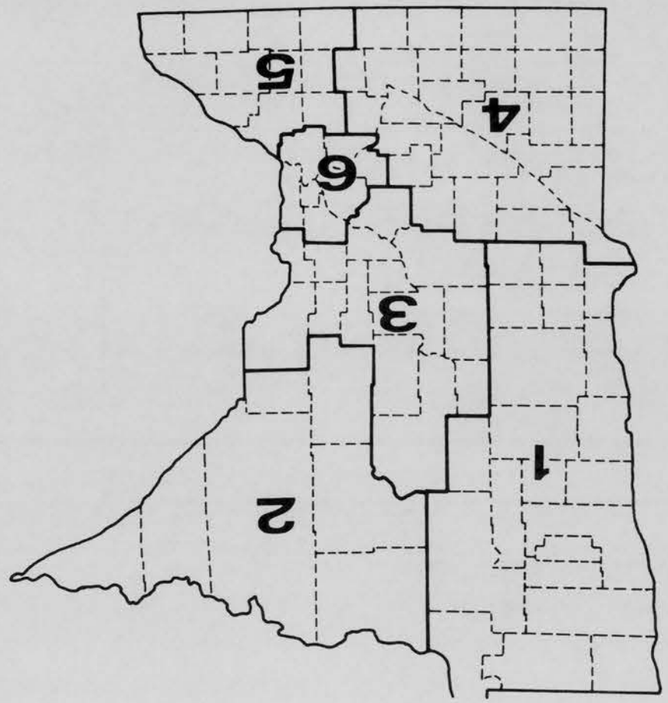
REMINDER: Any riprap shore protection project which does not conform to the aforementioned criteria must be authorized prior to installation by a permit from the Department of Natural Resources pursuant to Minnesota Statutes, Section 105.42 and Minnesota Rules Part 6115.0190, Subpart 4, Item C.

ADDITIONAL INFORMATION

If you desire additional information on shore protection, a pamphlet, "HELP YOURSELF", is available from the U.S. Army Corps of Engineers. The pamphlet discusses critical erosion problems on the Great Lakes and cites additional methods of shore protection. Address your request to:

U.S. Army Corps of Engineers
1135 U.S. Post Office and Custom House
St. Paul, Minnesota 55101
1-612-725-7506

The installation of riprap not meeting these criteria without a previously obtained DNR permit is considered a violation of law and is subject to criminal prosecution ($700 and/or 90 days in jail) and restoration as deemed appropriate by the Commissioner of Natural Resources. Contact your DNR Regional Office or the Division of Waters in St. Paul for permit applications.



For additional information and assistance, contact the appropriate Regional Office or the Division of Waters in St. Paul.

Region 1 2115 Birchmont Beach Road N.E.
Bemidji, MN 56601
(218) 755-3973

Region 2 1201 East Highway 2
Grand Rapids, MN 55744
(218) 327-4416

Region 3 1601 Minnesota Drive
Brainerd, MN 56401
(218) 828-2605

Region 4 Box 756, Highway 15 South
New Ulm, MN 56073
(507) 354-2196

Region 5 P.O. Box 6247
Rochester, MN 55903
(507) 285-7430

Region 6 1200 Warner Road
St. Paul, MN 55106
(612) 296-7523

Central Office DNR Building
Box 32, 500 Lafayette Rd.
St. Paul, MN 55155-4032
(612) 296-4800

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Return Address:

STAMP

TO: _____

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RIPRAP SHORE AND STREAMBANK PROTECTION INFORMATION SHEET

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DRAINAGE LAW AMENDMENTS - CHAPTER ** SF 956 DeCramer, HF 1078 Jennings

SF 956 makes technical and substantive amendments to the drainage law which was recodified in Chapter 106A in 1985. The bill provides for:

- Clarification and amendments concerning the determination and assessment of benefits.
- Procedural changes to improve drainage proceedings.
- Soil and water conservation measures relating to agricultural drainage.

Determination and Assessment of Benefits and Damages

Determination of Benefits. Viewers must determine the amount of benefits to all property within the watershed and the benefits may be based on an increase in the current market value of the property as a result of constructing the project, an increase in the potential for agricultural as a result of constructing the project, or an increased value of the property as a result of a potential different land use (Section 70). Benefits and damages may only be assessed against the property benefited or damaged or an easement interest in the property for the exclusive use of the surface of the property (Section 70).

Within the watershed that drains to the area where a project is located, the viewers may assess outlet benefits on property that is responsible for increased sedimentation in downstream areas of the watershed and the property that is responsible for increased drainage system maintenance or increased drainage system capacity because the natural drainage on the property has been altered or modified to accelerate the drainage of water from the property (Section 71).

If part of a drainage project increases drainage capacity and the increased drainage capacity is necessary due to increased drainage in the project or watershed rather than increased drainage in a specific areas, the viewers may assess benefits on property in the project watershed on a pro rata basis (Section 72).

Property Assessed Benefits that Require a Permit to Realize the Benefits. In assessing the benefits, the viewers must show in the viewers' report, the number of acres and the amount of benefits being assessed for drainage areas, which before drainage benefits could be realized, would require a state or federal permit to drain the property or that would be considered a conversion of a wetland under the federal farm program's "swampbuster" provisions if the area was placed in agricultural production (Section 74). In addition, the information must be included in the property owner's report (Section 76).

Determination of Damages. The viewers must determine damages which may include the fair market value of the property required for the channel of an open ditch and the permanent grass strip,

the diminished value of a farm due to severing a field by an open ditch, loss of crop production during drainage project construction, and the diminished productivity or land value from increased overflow (Section 73).

Reporting of Benefits and Damages. The viewers' report must include a benefit and damages statement that shows for each property owner how the benefits or damages for similar tracts or lots were determined (Section 74). From the viewers' report the auditor must prepare a property owner's report which states the benefits and damages for each lot or tract of property (SEction 76). The property owner's report must be mailed to each owner of property affected by the proposed drainage project.

Redetermination of Benefits and Damages. Section 106A.351 is amended to provide that both benefits and damages may be redetermined. As part of the redetermination procedures, the

auditor must prepare a property owner's report from the viewers' report in the same manner as other proceedings (Section 83).

Drainage Proceedings

Informal Meetings. A drainage authority may hold informal meetings in addition to the meetings and hearings required in Chapter 106A to inform persons affected by the drainage system about the drainage proceedings and provide a forum for informal discussions (Section 21).

Petition and Petitioner's Bond. Requirements for signatures on a petition, withdrawal of a petitioner, filing the petition, and a petitioner's bond are provided and applied to all petitions for drainage projects and petitions for repairs (Section 33).

The names and addresses of property owners in the petition must be taken from the records in the county assessor's office (Sections 34, 37 and 38). After the petition and bond are filed, the county attorney must review them and determine if they meet the requirements of the proceedings for which they are intended (Section 42).

Viewer Qualifications. The provisions relating to viewer requirements under section 106A.305 is amended to provide that the drainage authority may appoint viewers that are residents of the state who are qualified to assess benefits and damages (Section 66). In existing law, the viewers were required to be resident property owners of the county affected by the proposed drainage system. In addition, the drainage authority may establish qualifications for viewers (Section 66).

Benefits and Damages Within a Municipality. If benefits and damages are assessed against property within the jurisdiction of a municipality, the drainage authority may assess the benefits and damages to the municipality whether the property is owned by the municipality or is in private ownership (Section 69).

Repairs by Drainage Authority Without Petition Increased to $50,000. If the drainage authority finds that the estimated

cost of repairs and maintenance of one drainage system for a year will be less than the greater of $50,000 or $1,000 per mile of open ditch in a ditch system, the drainage authority may have the repair work done by hired labor and equipment without advertising for bids (Section 124).

Enforcement of Unauthorized Outlets Into a Drainage System. The drainage authority must notify a property owner of an unauthorized outlet into a drainage system and direct the property owner to block the outlet or otherwise make the outlet ineffective by a specified time and until the outlet is approved and the outlet fee is paid. If the property owner does not block the unauthorized outlet, the drainage authority must bring the outlet into compliance and assess the cost against the property where the outlet is located.

Payment of Attorney Fees on Appeal. If the commissioner of natural resources is a party making an appeal under section 106A.091 or 106A.095 and the commissioner does not prevail on the issues appealed, the court may award attorney fees to the party prevailing on the appeal. If more than one issue is appealed and the commissioner prevails on some issues and does not prevail on others, the court shall determine the amount of the attorney fee to be awarded.

Drainage and Conservancy District Terminated. Drainage and conservancy districts established under Minnesota Statutes, Chapter 111, which was enacted in 1919 and provides a moratorium on new districts under section 111.421, are terminated on January 1, 1988. Projects started by drainage and conservancy districts before January 1, 1988 may be completed. Provisions are made under existing law in section 112.74 for a drainage and conservancy district to acquire the right to operate as a watershed district by filing a petition with the district court asking that it be granted the watershed district authority. Additional provisions in Chapter 111 are renumbered to corresponding sections of existing law (Sections 138, 139, and 140).

Soil and Water Conservation

Planting and Maintenance of Permanent Grass Strips on Ditch Banks. The area that is to be acquired for the permanent grass strip under existing law, section 106A.021, must be included on the engineer's map of the drainage system and on the engineer's map that is submitted to the director of the division of waters (Sections 1 and 58). The ditch right-of-way acreage must include the area for the grass strip that is listed on the engineer's detailed survey report (Section 61) and damages must be determined and included on the viewers' report (Sections 73 and 74).

After a drainage system is constructed, the drainage authority must maintain the drainage system and the permanent grass strips. As part of the drainage authority's inspection of a drainage system, the inspection committee or a drainage inspector must inspect the permanent grass strips to assure that they are maintained. If a permanent grass strip is not being maintained

in compliance with section 106A.021, the property owner must be notified and directed to bring the area into compliance (Section 124). If the property owner does not bring the property into compliance, the drainage authority may do so and assess the expenses against the property as other drainage work (Sections 124, 18 and 19).

In a repair proceeding, if the drainage authority determines after notice and hearing that a property owner has conducted agricultural practices or has otherwise violated provisions relating to the permanent grass strip, the drainage authority may make an additional assessment on the property in violation (Section 126).

Flooding and Retention of Drainage Waters. Before establishing a drainage project, in addition to other environmental and land use criteria, the drainage authority must consider the flooding characteristics of the property in the drainage project or system and downstream for 5, 10, 25 and 50 year flood events, the waters to be drained, and alternative measures to conserve, allocate, and use the waters, including storage and retention of drainage waters (Section 17).

Erosion Control Measures. Drainage authorities are authorized to install erosion control measures as part of a repair if property owners are compensated for any property that is taken and installation of the erosion control measures will aid the long-term efficiency of the drainage system (Section 125).

Assessment for Soil Loss Violations. As part of a repair proceeding, the drainage authority after notice and hearing may make special assessments on property that is in violation of a county soil loss ordinance (Section 126).

Repairs Affecting Public Waters. Before a repair is ordered, the drainage authority must notify the commissioner of natural resourcesif the repair could affect public waters. If the commissioner disagrees with the repair depth, the engineer, a representative appointed by the director, and a soil and water conservation district technician must jointly determine the repair depth, using soil borings, field surveys, and other available data or appropriate methods. The cost for determining the repair depth beyond the initial meeting must be shared equally by the drainage system and the commissioner. The determined repair depth must be recommended to the drainage authority. The drainage authority may accept the joint recommendation and proceed with the repair (Section 123).

REINVEST IN MINNESOTA/WATER BANK - CHAPTER 357 SF 841 Novak, HF 886 Munger

Conservation Reserve Program

Amends M.S. 40 concerning the conservation reserve component of the reinvest in Minnesota program as follows:

* Defines wetlands in terms of hydric soils and a predominance of hydrophytic vegetation.

FLOOD HAZARD MITIGATION GRANT ASSISTANCE PROGRAM

What is the program?

During the 1987 Legislative Session, Laws of Minnesota Chapter 306 Sections 3-5 established within the Department of Natural Resources a flood hazard mitigation program to provide state technical and financial assistance to local government units for conducting flood damage reduction studies and for planning and implementing structural and non-structural flood damage reduction measures.

What flood hazard mitigation measures are eligible for funding assistance?

Financial assistance may be available for conducting flood damage reduction studies and for planning and implementing structural and non-structural measures including: dams, dikes, levees, flood bypass channels, flood storage and retardation structures, water level control structures, acquisition of floodplain lands, relocations, floodproofing, development of flood warning systems and evacuation procedures, adoption and enforcement of land use control ordinances and building codes, signs and other notifications of regional flood areas, provision of flood insurance and public education.

What measures are not eligible for funding assistance?

Certain measures are excluded from this program including deepening or straightening existing stream channels, cleaning out public ditches and clearing and snagging natural watercourses.

Who may apply for funding assistance?

Applications for financial assistance must be made by a local government unit including a county, statutory or home rule charter city, town, watershed district or lake improvement district. Financial assistance is not available directly to individuals, companies or corporations.

How much financial assistance is available?

The Department of Natural Resources may award grants up to $75,000. Grants for more than $75,000 must be submitted for consideration by the governor and the legislature before each odd numbered year. Grants awarded under this program may not exceed one-half of the total cost of the proposed flood damage reduction project.

How are grant requests evaluated?

Grants are to be based on the following considerations:

1. the extent and effectiveness of mitigation measures already implemented by the local government requesting the grant;

2. the feasibility, practicality, and effectiveness of the proposed mitigation measures and the associated non-flood related benefits and detriments;

3. the level of grant assistance that should be provided to the local government, based on available facts regarding the nature, extent, and severity of flood problems;

4. the frequency of occurrence of severe flooding that has resulted in declaration of the area as a flood disaster area by the President of the United States;

5. the economic, social, and environmental benefits and detriments of the proposed mitigation measures;

6. whether the floodplain management ordinance or regulation adopted by the local government meets the minimum standards established by the commissioner, the degree of enforcement of the ordinance or regulation, and whether the local government meets the minimum standards established by the commissioner, and whether the local government is complying with the ordinance or regulation;

7. the degree to which the grant request is consistent with local water plans developed under chapters 110B and 112 and sections 273.875 to 473.883;

8. The financial capability of the local government to solve its flood hazard problems without financial assistance; and

9. the estimated cost and method of financing of the proposed mitigation measures based on local money and federal and state financial assistance.

The DNR is required to prioritize all grant requests according to the above considerations.

When will the flood hazard mitigation grant funds be distributed?

Applications for grants this biennium will be accepted until December 31, 1987 by DNR Regional Hydrologists. One half of the available funds will be distributed by March 31, 1988. The other one half of the funds will be distributed by September 15, 1988. The same applications will be used for both of these funding cycles.

How do I get more information or get assistance in making an application for a flood damage reduction grant?

Contact your local DNR Area Hydrologist. The Area Hydrologist will be able to help you evaluate your flooding problems and may have ideas about how to best solve your flooding problems. The area hydrologist may also be able to suggest improvements to the application before it is submitted for the formal review process. A list of Regional Hydrologists, Area Hydrologists and their locations is attached.

If you want general information about the program please contact:

Joe Gibson
Supervisor - Flood Plain Management Unit
Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4032
(612) 296-2773

WESTERN AND SOUTH CENTRAL TWIN CITIES FLASH FLOOD - JULY 23-24, 1987

The flash flood occurred generally between 7PM 23 July to 1AM 24 July, 1987. It's path was on a line from Lake Minnetonka east-southeast through Edina, Inver Grove Heights and into Wisconsin; with rain fall amounts from 6 inches to more than 11 inches. The greatest amount was 11.32 inches documented on a standard weighing rain gage. There were some greater unofficial amounts. Some 335 rainfall reports were used to draw the isohyet map. The area covered by 10 inches or more of rainfall was 93 square miles; 6 inches or more was 574 square miles and by 4 inches or more was 1460 square miles. Much of the 6 inch and greater rainfalls occured over residential parts of the Twin Cities. To date an estimated 7000 homes have reported water damage. At this time the known costs of damages are approximately 25 million dollars.

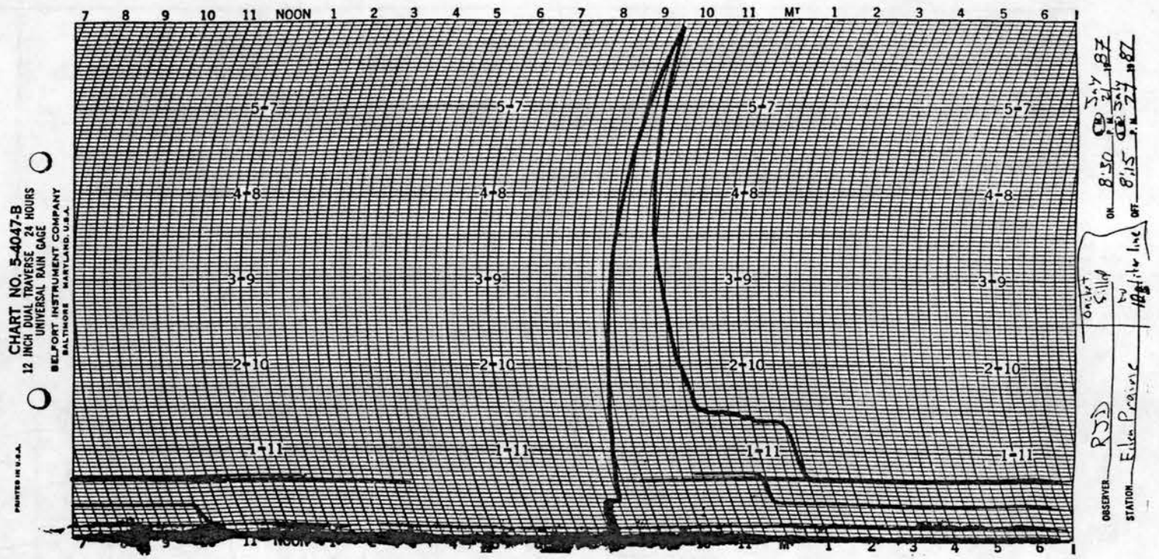
This storm was preceded by 72 hours by a similarly oriented storm with totals exceeding 9 inches. The earlier storm fell mostly in adjacent areas to the south and west. However, two storm totals exceeded 16 inches in some areas.

The greatest official 24-hour rainfall amounts for the Twin Cities are as follows: 10.00" on July 23-24, 1987 ranks first, 7.80" in June 1892 ranks second, and 7.36" on August 30, 1977 ranks third.

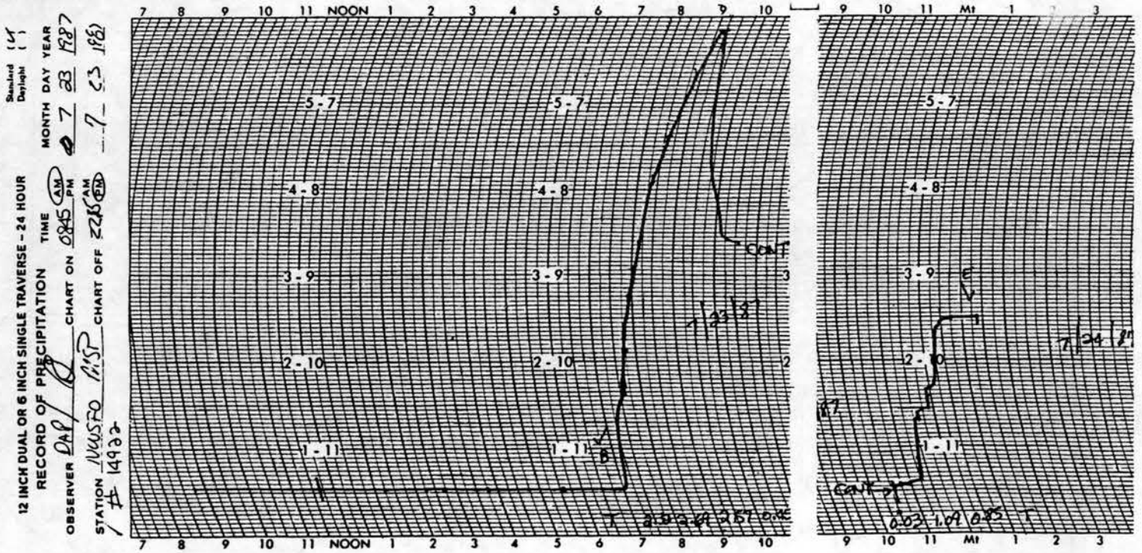
The total amount of water that fell of the Twin Cities from the storm on the nights of the 20th and the 23rd was calculated to be three to four hundred billion gallons; enough to fill Lake Calhoun eighty times!

The rarity of such an event may be judged by noting that the Weather Bureau publication 'Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 hours and Return Periods from 1 to 100 Years' or 'TP 40' indicates that a 100 year 24 hour storm total is about 6 inches. By using the same techniques as used in that publication, it can be shown that a 10 inch total in 24 hours has a '1000 to 2000 year return period'. The terminology, 'return period', however, can be somewhat misleading. A '1000 year return period' might be better interpreted as 'a one-in-1000 chance per year' of the stated amount occuring (10 inches in 24 hours). That is, every year a small but not zero chance exists that a large rainfall will be caught at a given point. By looking at many other points, namely the entire State of Minnesota, such large daily totals appear relatively common; about every two or three years a 10 inch amount is caught somewhere in Minnesota. The original concept of 'one-in-1000' can be seen on a statewide basis by measuring the area of each such 10 inch event. From rough examinations of this information, it appears that a 10 inch rainfall ('a 1000 year return period' event at a point) covers about 1/1000th of the total area of the state per year.
Prepared by Earl L. Kuehnast and James A. Zandlo.

James A. Zandlo
Minnesota Department of Natural Resources
State Climatology Office



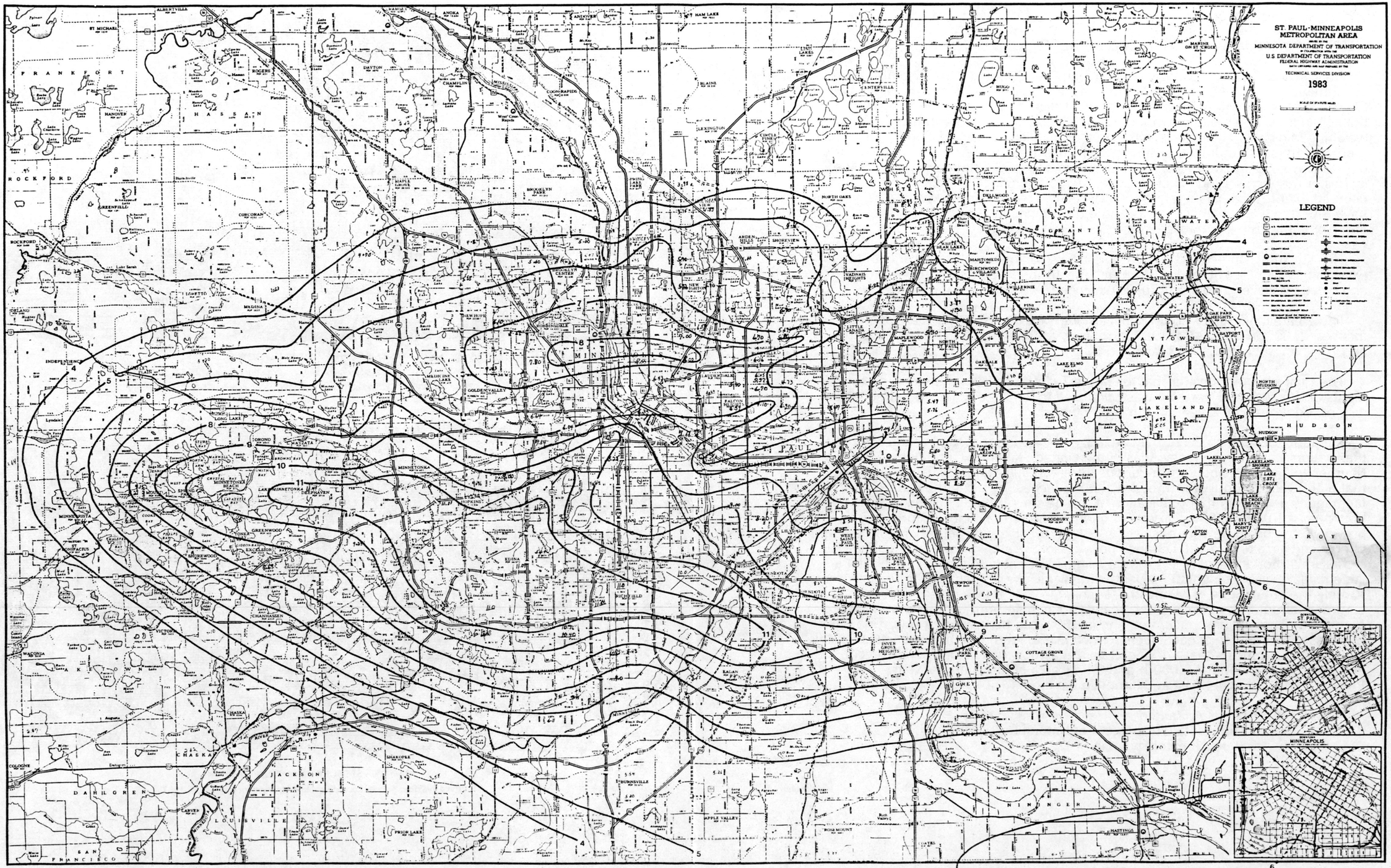
NINE MILE CREEK WATERSHED DISTRICT
Barr Engineering Company recording rain gage trace for July 23-24, 1987
Gage located in Eden Prairie at 1/2 mile north of intersection of I-494 and US 169



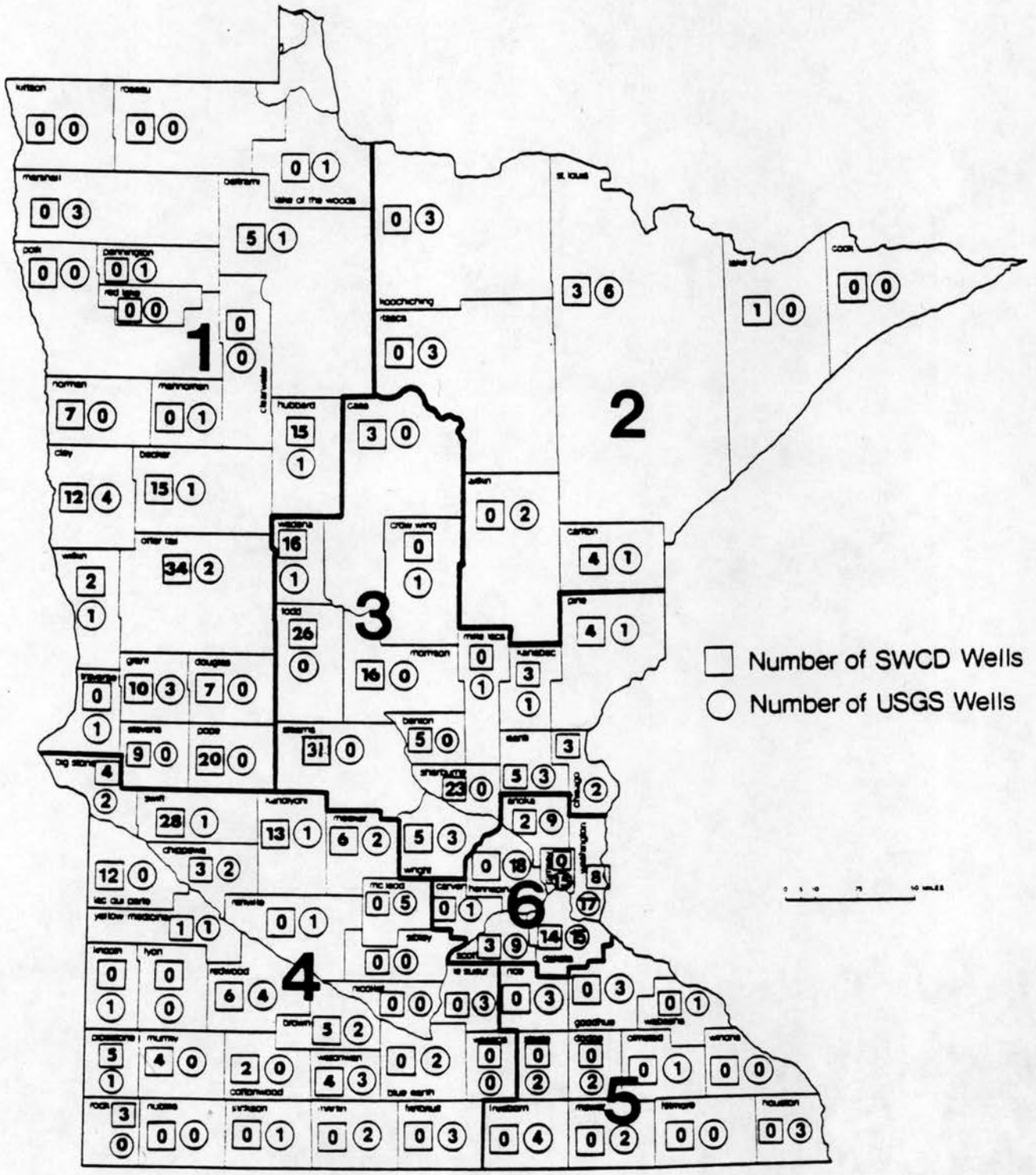
MINNEAPOLIS - ST PAUL INTERNATIONAL AIRPORT
National Weather Service recording rain gage trace for July 23-24, 1987

WESTERN & SOUTH CENTRAL TWIN CITIES FLASH FLOOD

JULY 23–24, 1987



NUMBER OF ACTIVE OBSERVATION WELLS IN WATER YEAR 1985



Agricultural Chemicals and Water
Examples of Possible Local Initiatives
For BWSR discussion 11/25/87

1. BWSR could require local water plans to assess agchemical contamination and design effective local solutions. Water Management Organizations (Metro), Counties (Outstate), and Watershed Districts need BWSR approval of their plans.

2. Local planning efforts could be supported by the state providing model ordinances, additional monitoring, technical advice, and implementation funding.

3. Counties and municipalities could consider the following options (among others):
   - Limit agchemical use near vulnerable areas such as sinkholes, shorelands, and well recharge areas;
   - Ban use of pesticides found in municipal wells;
   - Test public and private wells for pesticides;
   - Prohibit dumping or burying of used pesticide containers;
   - Ban fall fertilizer applications;
   - Educate citizens on possible hazards of lawn sprays, aquatic herbicides, and farm chemicals; or
   - Design property tax incentives for elimination of chemical use.

4. Soil and Water Conservation Districts could target cost share grants for practices that miniumize chemical use, such as strip rotations, additional cultivation, split fertilizer applications, banding of herbicide sprays, etc.

5. Each SWCD could designate a local "Demonstration Farm" to show farmers the best practices to minimize chemical use without hurting profits.

6. The Conservation Reserve Program and RIM could include lands that contribute to groundwater pollution.

7. Local governments or SWCDs could provide free or subsidized soil tests, manure tests, and water tests to encourage farmers to use fertilizer wisely.

8. Farm conservation plans that will soon be required from federal farm program participants could be expanded to include groundwater protection practices.

Loni Kemp

#A

Southern Minnesota River Basin - Study Area II - Flood Control Program

Structures completed - 6 (includes a cooperative project in So. Dakota)

Structures being planned - 2 Pipestone Co. - Construction to begin 1988
Brown Co. - Construction to begin 1990?

1988-1989 budget

198,500 per year - general fund
100,000 per year - bonding

Projects and technical office are funded on a 75% (state) and 25% (local) basis

#B

Project: Area Technical Office

Contract No: MBWSR 104-14

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

TECHNICAL OFFICE AGREEMENT

THIS AGREEMENT, is made this 12th day of November,1987, for the period July 1, 1987, through June 30, 1988, by and between the Minnesota Board of Water and Soil Resources, hereafter called the "Board" and the Area II Upper Minnesota River Basin Board, hereafter called "Area II".

WITNESSETH THAT:

WHEREAS, Minnesota Statutes, Sections 104.42 - 104.50, provides for grants-in-aid to local governmental units within the Southern Minnesota Rivers Basin Area II for the construction of floodwater retarding and retention structures, including site acquisition, design, and construction costs; and

WHEREAS, The counties within the Southern Minnesota Rivers Basin Area II have entered into a Joint Powers Agreement to coordinate and implement construction of such floodwater retarding and retention structures and for this purpose have established the Area II Upper Minnesota River Basin Board to act on their behalf; and

WHEREAS, Area II has established and staffed a technical office to supplement the engineering and technical services provided by the Board and the Soil Conservation Service; and

WHEREAS, This technical office houses the Board's engineer and Area II personnel; and

WHEREAS, The Board provides annually up to 75% of the operating costs of this technical office including, but not limited to, furniture, salaries, per diem,survey and testing materials, vehicles, secretarial and accounting expenses, employee and engineer travel and education expenses, and telephone services.

NOW THEREFORE, in consideration of the premises set forth herein, Area II and the Board hereby agree as follows:

A. **AREA II SHALL:**

1. Operate the technical office for the fiscal year 1988 according to the attached detailed spending and work plan made a part of this Agreement.

2. Provide 25% of Area II's annual budget for operational costs of technical office. The annual budget for fiscal year 1988 is **$76,400.00**.

3. Remit monthly to the Board a report of all expenditures made during the month including payments for furniture, salaries, per diem, survey and testing materials, vehicles, secretarial and accounting services, employee and engineer travel and educational expenses, telephone and all other expenses related to the operation of the technical office.

4. Have its financial accounts audited at least annually and report the results to the Board and to its ten members.

5. Meet annually with the Board at a regular meeting to present new projects and inform the Board on its operations.

6. Request prior authorization of the Board before making purchases not identified in the work plan.

7. Reimburse the Board for expenditures which are ruled by the Board to be ineligible uses of state money.

8. Indemnify and save and hold the Board, its agents and employees, harmless from any and all claims or causes of action arising from the performance of this Agreement by Area II, its agents or employees. This clause shall not be construed to bar any legal remedies Area II may have for the Board's failure to fulfill any obligations pursuant to this Agreement.

B. **THE BOARD SHALL:**

1. Within the limits of legislative appropriation provide 75% of Area II's yearly budget but not more than **$57,300.00** from fiscal year 1988 Funds.

2. Provide, at its expense, the services of its Staff Engineer according to Minnesota Statutes, Section 104.45, who, in addition to any other duties he may have, shall manage the technical office.

3. Provide overall supervision of projects in the best interest of the state.

C. **IT IS MUTUALLY AGREED THAT:**

1. Additional funds required as a result of a judgment against Area II arising from this Agreement may be provided by the Board in the same ratio as funds are contributed under the terms of this Agreement, if in the judgment of the Board, Area II acted in good faith and the judgment was not due to the failure of Area II to properly discharge any duties and responsibilities required by this Agreement, Minnesota Statutes, Section 104.42 - 104.50, the Joint Powers Agreement establishing Area II or other applicable law. The Board shall not contribute any funds any agreement or commitment made by Area II without the prior concurrence, in writing, of the Board.

2. The books, records, documents, and accounting procedures and practices of Area II relevant to this Agreement are subject to examination by the Minnesota Board of Water and Soil Resources and the State Auditor as per Minnesota Statutes 16.095.

3. No member of any elected body, nor any employee or agent of Area II or the Board shall materially benefit, directly or indirectly, from any project undertaken by Area II, except as provided by law or this Agreement.

4. This Agreement may be canceled by either party upon a thirty (30) day notification.

AREA II UPPER MINNESOTA RIVER BASIN

TECHNICAL OFFICE WORK PLAN

FISCAL YEAR 1988

The Area II Technical Office will operate using the funds shown in the spending plan for 1988 as follows:

The office will be managed by the engineer employed by the Board of Water and Soil Resources. The position will be under the direction of the Director of the Board of Water and Soil Resources.

The engineer is responsible for preparing the spending plan and billing the ten counties for their share of the spending plan. The engineer will be responsible for maintaining the financial records of the technical office.

The Area II Directors will employ an engineering technician for assisting the egineer in the design, construction inspection, surveying, drafting, and administration of the projects undertaken by this office. This technician will work full time during fiscal 1988 and be under the supervision of the engineer employed by the Board of Water and Soil Resources.

The technician's time will be used as follows during Fiscal Year 1988:

1. Three and one half months of construction inspection and surveys.

2. One and one half months preliminary and topographic surveying of new structure sites.

3. Six and three fourth months design, computation, and drafting for projects.

4. Three weeks annual leave.

A part-time technician will be employed during construction or as needed to assist the engineering technician with his duties.

The Directors of Area II will employ a part-time clerk/accountant to perform the accounting, typing, and clerical work required by the engineer. The engineer will determine the time needed to complete the clerical work.

The employees described in the previous two paragraphs will work under the supervision of th engineer employed by the Board of Water and Soil Resources.

The spending plan also allows for per diem and expense payments to the ten directors and alternates for performing their duties for the operation of the Area II Technical Office. The spending plan also allows for general liability insurance, workmen's compensation, honesty bonds, theft and casualty insurance, and automobile insurance. The directors also carry medical and dental insurance for the technician.

The office expenses shown are derived from actual costs of the previous year with a small inflation increase. Also included is an item to fund seminars for the Board's Engineer. This will be used to pay for seminars necessary for continuing education in dam safety, flood plain management, structure design, and other courses concerned with the engineer's duties.

The spending plan allows for the maintenance of a personal computer and purchase of additional software which is used for engineering duties, word processing, and accounting duties for Area II.

The survey and testing supplies are necessary for expendable supplies such as lath, stakes, paint, etc., as well as concrete tests and maintenance of the survey and testing equipment.

The amount budgeted for geological testing will allow for the contracting of drilling, sampling, and testing the foundation of structures, and other materials for new projects.

The spending plan also includes funds for the replacement of the 1979 Mercury which has 120,000 miles and will be replaced with a pick-up truck.

AREA II UPPER MINNESOTA RIVER BASIN

TECHNICAL OFFICE BUDGET

FISCAL YEAR 1988

EMPLOYEE EXPENSES

Engineering Technician		$23,000.00
Part Time Technician Salary		2,000.00
Clerical and Accounting Salaries		2,000.00
Employee Expenses		500.00
Employee Education		1,000.00
Employer Share FICA		1,800.00
Employee Medical Insurance		1,000.00
	Subtotal	**$31,600.00**

DIRECTOR EXPENSES

Director's Per Diem		$5,000.00
Director's Expenses		2,500.00
Insurance and Bonds		5,000.00
Professional Services		1,000.00
Meeting Expenses		600.00
	Subtotal	**$25,000.00**

OFFICE EXPENSES

Computer Maintenance		$400.00
New Software		1,200.00
Telephone		1,500.00
Postage		400.00
Office Supplies		1,000.00
Automobile Expense		2,000.00
Engineer Seminars		500.00
Miscellaneous		500.00
	Subtotal	**$7,500.00**

PROJECT EXPENSES

Geologic Testing		$8,000.00
Project Expense		3,000.00
Contracted Services		1,000.00
Replacement Vehicle		11,000.00
	Subtotal	**$2,300.00**
	GRAND TOTAL	**$76,400.00**
	State Share	**$57,300.00**
	Local Share	**$19,100.00**

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

Approved:

AREA II UPPER MINNESOTA RIVER BASIN BOARD

Authorized Signature

Willard Braaten, Chairman

Date

Nov. 2, 1987

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

Authorized Signature

Date

ATTORNEY GENERAL

Authorized Signature

Date

COMMISSIONER OF ADMINISTRATION

Authorized Signature

Date

COMMISSIONER OF FINANCE

Authorized Signature

Date

Minnesota Forestry Improvement Program

- Fiscal year 1988 is the fifth year of this cooperative program with DNR forestry.
- The program is designed to complement state and federal forest management efforts on private non-industrial lands.
- Approved practices are:

  - Logging or access road construction
  - Woodland fencing
  - Forest plantation firebreaks and fire suppression lanes
  - Pocket gopher control

  There is also a provision for special practices to meet local needs.
- Participating SWCDs and allocations for 1988 are attached.

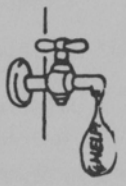
MINNESOTA FORESTRY IMPROVEMENT PROGRAM
SUMMARY OF 1988 FY SWCD ALLOCATIONS

SWCD	1988 FY ALLOCATION
Beltrami	$ 4,000
Clearwater	4,000
Hubbard	3,500
Cass	4,000
Crow Wing	3,000
Morrison	3,000
Wadena	4,500
Carlton	4,500
Itasca	6,000
Lake	2,500
North St. Louis	6,000
South St. Louis	7,000
Fillmore	4,500
Goodhue	2,000
Root River	4,500
Wabasha	4,000
Winona	6,000
Pine	3,000
Aitkin	6,000
Koochiching	2,000
Roseau	3,000
Chisago	2,000
Isanti	1,500
Mille Lacs	1,500
	Total $92,000

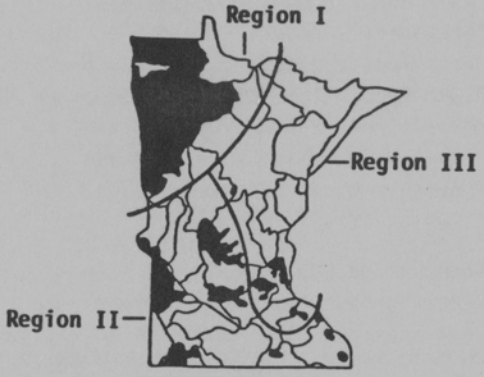
Funding Summary	
Transferred from DNR:	$120,000
Dept. of Ag. Admin.:	6,000
SWCD Allocation:	92,000
Held for Future Allocation:	22,000

1987

SEVENTEENTH ANNUAL MEETING OF THE MINNESOTA ASSOCIATION OF WATERSHED DISTRICTS, INC.



What Good Is A Faucet If
You Can't Drink The Water?



REGENCY INN
1010 Holiday Drive
Moorhead, Minnesota

December 4 and 5, 1987

Sponsored By

Minnesota Association of Watershed
Districts, Inc.

PROGRAM SESSIONS AND SCHEDULE

FRIDAY, DEC. 4

8:00 to 9:30 a.m. **Registration and Coffee**
Harley Younggren and Roland Gullekson

9:30 a.m. **Association Business Meeting**
Presiding - Paul Brekken, President

*President's Report - Paul Brekken
*Region I Report - Lowell Enerson
*Region II Report - Wilfred Hansen
*Region III Report - Howard Peterson
*509 Section Report - Howard Peterson
*Report from Board of Water and Soil Resources - Donald H. Ogaard, Chairman
*Secretary's Report - Willard Pearson
*Credential's Report - Harley Younggren
*1987 Audit Report - Joe River
*Treasurer's Report - Gordon Moosbrugger
*Proposed 1988 Budget - Gordon Moosbrugger
*1987 Resolutions Committee Report - Sand Hill River
*Appointment and Approval of 1988 Auditing Committee - Region II - Middle Des Moines
*Appointment of 1988 Resolutions Committee - Region II - Turtle Creek

12:00 p.m. **Association Luncheon**
Presiding - President Brekken
Speaker - The Honorable Morris Lanning
Mayor, City of Moorhead

2:15 to 3:15 p.m. **Concurrent Seminars**

1. The Quality of Our Ground Water
Moderators - Roland Gullekson and Harley Younggren

Presentation by Christine Olsenius, Vice President for Education; Freshwater Foundation

2. The New Board of Water and Soil Resources
Panel - Chairman Donald H. Ogaard; Members John Boulton, Loren Harste, and Howard Peterson

3. Evaluation of Wetlands and Their Place in the Water Management System

Moderators - Al Dornfeld and Gordon Moosbrugger

Presentation by Gerald VanAmburg, Manager, Buffalo-Red River Watershed District

3:15 p.m. **Refreshment Break**

3:30 to 4:30 p.m. **Repeat of Association Seminars**

4:40 p.m. **Caucuses of Regions**

Election of Directors and Other Business

5:45 p.m. **Association Dinner**
Presiding - President Paul Brekken

7:15 p.m. **Depart to Concordia College for Christmas Choir Concert**

Other Programs on Friday

10:00 a.m. Transportation will be provided for spouses to leave the Regency Inn for a tour of the Heritage-Hjemkomst Interpretive Center, lunch, and shopping at the West Acres Shopping Center. Return transportation will be available at 4:30 p.m.

10:00 a.m. to Noon **Joint Meeting of Engineers and Attorneys**
Presiding - Bill Weidenbacher, Hickok and Associates

SATURDAY, DEC. 5

8:30 a.m.	**Association Business Meeting Continued** Presiding - President Paul Brekken *Final Report by Credentials Committee *Metro Area Committee Report *Report on Insurance - Al Hoffman, Business Agency *Legislative Direction
10:30 a.m.	**Refreshment Break**
10:45 a.m.	*Report by Mel Sinn, Board of Water and Soil Resources *Managers' Questions and Answers on District Operations *Consideration of Resolutions *Adoption of 1988 Budget *Adoption of 1988 Dues Schedule *1988 Annual Meeting Location
12:15 p.m.	***Introduction of Newly Elected Directors**
12:30 p.m.	**Adjourn**

Board of Directors Will Meet for Reorganization After Adjournment on Saturday

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OFFICERS AND DIRECTORS

*Paul Brekken, Red Lake
President.....1987...Region I
*Loren Harste, Upper Minnesota River
Vice President.....1987...Region II
Willard Pearson, Lac Qui Parle-Yellow Bank
Secretary.....1988...Region II
*Gordon Moosbrugger, Valley Branch
Treasurer.....1987...Region III

**Warren Wallgren, Ramsey-Washington Metro.....1988...Region III
Ray Goedtke, Middle Des Moines.....1989...Region II
Roland Gullekson, Sand Hill River.....1988...Region I
E. Harley Younggren, The Two Rivers.....1989...Region I
Howard Peterson, Riley-Purgatory-Bluff Creek.....1989...Region III

***Terms Expire at 1987 Meeting**
****Serving in Unexpired Term Until 1987 Meeting**

HAVE A SAFE AND PLEASANT JOURNEY HOME

Memorandum of Understanding

Between the

Minnesota Board of Water and Soil Resources

and the

Department of Natural Resources

WHEREAS, the Minnesota Board of Water and Soil Resources (hereinafter referred to as the Agency) and the Department of Natural Resources (hereinafter referred to as DNR) entered into a Memorandum of Understanding for the implementation of the Minnesota Forest Improvement Program, and

WHEREAS, the 1987 session of the Minnesota Legislature has appropriated funds to DNR for continuation of the Minnesota Forest Improvement Program during the 1988-1989 biennium under 1987 Minnesota Laws ch 404, §22, subd. 4, and

WHEREAS, the Agency and DNR concur that this program can be effectively implemented by local Division of Forestry Areas and Soil and Water Conservation Districts (hereinafter referred to as SWCD's), which elect to become involved under the guidance of the Agency and DNR:

THEREFORE, the Agency and DNR enter into the following Memorandum of Understanding.

STATEMENT OF PURPOSE

The purpose of this Memorandum of Understanding is to:

1. Establish the responsibilities necessary to implement the Minnesota Forest Improvement Program.

2. Transfer funding from DNR to the Agency for the purpose of providing grants to SWCD's to cost-share with landowners participating in the Minnesota Forest Improvement Program.

AGENCY RESPONSIBILITIES

The Agency is responsible for:

1. Contracting with SWCD's that have expressed an interest in participating in the Minnesota Forest Improvement Program.

2. Providing staff assistance necessary to administer said funds.

3. Assisting DNR in developing and carrying out any training needed by the SWCD's and local Division of Forestry Area Offices for the

said program.

4. Providing the forms necessary to carry out the Minnesota Forest Improvement Program.

DNR RESPONSIBILITIES

DNR is responsible for:

1. Identifying both those areas of the state in which the Minnesota Forest Improvement Program should be implemented, and those practices which should be conducted under this agreement.

2. Transferring to the Agency for distribution to the SWCD's, the sum of $120,000 for fiscal year 1988 and up to $120,000 for fiscal year 1989 for the Minnesota Forest Improvement Program, as specified by DNR.

3. Specifying to the Agency the amount of individual SWCD grants.

4. Providing technical assistance necessary to implement this program to the Agency, SWCD's, and participating landowners.

MUTUAL AGREEMENTS

It is mutually agreed that:

1. DNR, through its local field forestry representatives, will identify these landowners who should have the highest priority for participating in this program.

2. Assistance supplied under this agreement shall be furnished in accordance with the authorities and technical standards of each agency.

3. No party shall be bound by any obligation in this agreement that involves the expenditure of funds or manpower in excess of the amounts hereunder made available to it.

4. This agreement can be modified at any time by mutual consent of the parties hereto.

5. Five percent of the total funds available for the program may be used by the Agency for administrative purposes.

6. This agreement shall become effective upon signature by all parties and will remain in force until June 30, 1988.

MINNESOTA DEPARTMENT OF
NATURAL RESOURCES

Director, Division of Forestry

Date: 11/17/87

Deputy Commissioner

Date: 11/12/87

BOARD OF WATER AND
SOIL RESOURCES

Chairman

Date:

As to Form and Execution by the
Attorney General:

BY:

Date:

COMMISSIONER OF ADMINISTRATION

BY:

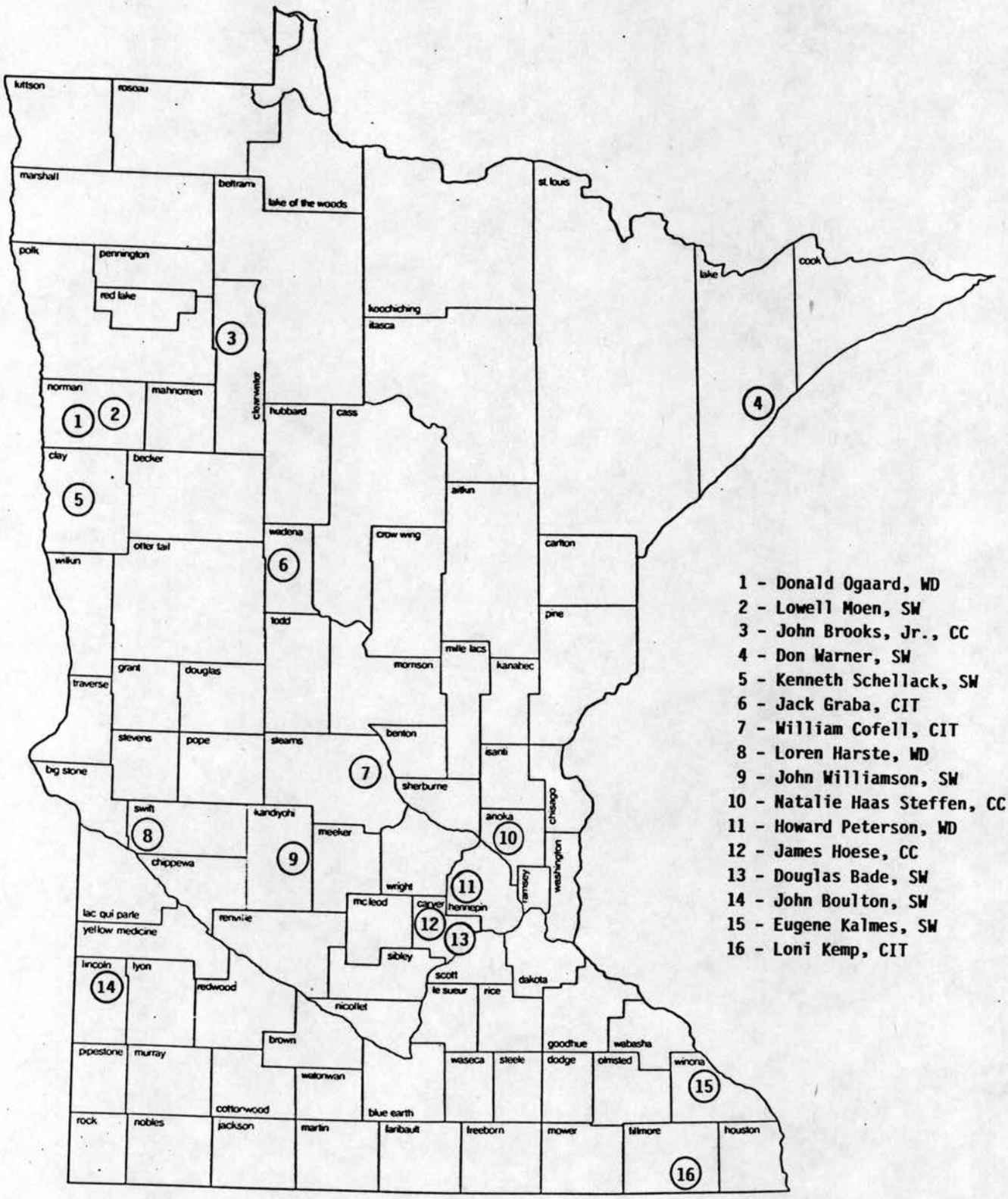
Date:

COMMISSIONER OF FINANCE

BY:

Date:

BOARD OF WATER AND SOIL RESOURCES
MEMBER LOCATION MAP (1987)



1 - Donald Ogaard, WD
2 - Lowell Moen, SW
3 - John Brooks, Jr., CC
4 - Don Warner, SW
5 - Kenneth Schellack, SW
6 - Jack Graba, CIT
7 - William Cofell, CIT
8 - Loren Harste, WD
9 - John Williamson, SW
10 - Natalie Haas Steffen, CC
11 - Howard Peterson, WD
12 - James Hoese, CC
13 - Douglas Bade, SW
14 - John Boulton, SW
15 - Eugene Kalmes, SW
16 - Loni Kemp, CIT

CIT - Citizen
CC - County Commissioner
SW - Soil and Water Conservation District Supervisor
WD - Watershed District Representative

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

Name of Member	County	Term Expires	Duty or Office	Address	Telephone
Donald H. Ogaard	Marshall	01-01-90	Chairman	705 W. 5th St. Ada, 56510	(218) 784-4156
William L. Cofell	Stearns	01-07-91	Member	12595 Old Collegeville Rd. St. Joseph, 56374	(612) 363-7604
Loni Kemp	Fillmore	01-06-92	Member	Route 1, Canton, 55922	(507) 743-8438
Jack M. Graba	Wadena	01-02-89	Member	Route 2 Sebeka, 56477	(218) 472-3222
John A. Williamson	Kandiyohi	01-06-92	Member	Route 2, Box 62 Atwater, 56209	(612) 974-8281
Don Warner	Lake	01-02-89	Member	West Star Route, Box 51 Silver Bay, 55614	(218) 226-4858
John Boulton	Lincoln	01-01-90	Member	Route 1, Box 18 Porter, 56280	(507) 296-4668
Kenneth G. Schellack*	Clay	12-31-89	Member	Route 2, Box 63 Glyndon, 56547	(218) 498-2103
Lowell Moen*	Norman	12-31-89	Member	Route 1, Box 46 Gary, 56545	(218) 356-8577
Douglas J. Bade*	Carver	12-31-89	Member	104 Lano Lane Chaska, 55318	(612) 448-4986
Eugene H. Kalmes*	Winona	12-31-89	Member	429 Sunnyview Drive Rollingstone, 55969	(507) 689-2998
Howard L. Peterson	Hennepin	01-07-91	Member	7021 Duck Lake Road Eden Prairie, 55344	(612) 934-2050
Loren Harste	Swift	01-06-92	Member	Route 2, Box 53 Appleton, 56208	(612) 596-2318
James A. Hoese	Carver	01-07-91	Member	5520 Polk Avenue Mayer, 55360	(612) 657-2416
Natalie Haas Steffen	Anoka	01-01-90	Member	7007 - 164th Avenue NW Anoka, 55303	(612) 753-4298
John Brooks, Jr.	Clearwater	01-02-89	Member	Route 1, Box 115 Gonvick, 56644	(218) 487-5752

* Temporary Member

In addition to the above members, four ex officio nonvoting members are provided by the Departments of Agriculture, Health, Natural Resources, and the Pollution Control Agency.

Conservation in the
1985 Farm Bill

Conservation Provisions

United States
Department of
Agriculture

Benefits of the Conservation Provisions

You and your community can expect a number of benefits as the major conservation provisions of the Food Security Act of 1985—the 1985 farm bill—are put into effect.

Conservation Reserve Program

The Conservation Reserve Program, under which producers may retire up to 45 million acres of highly erodible and highly eroding cropland, promises a large number of benefits:

- Soil erosion reduction onsite and less sedimentation offsite. Reducing soil erosion onsite saves money for the producer by ensuring sustained productivity. Offsite benefits include reducing the costs of cleaning up rivers and streams clogged by sediment, herbicides, and fertilizers from agricultural land. This improves water quality.
- Crop surplus reduction, and thus reduction in the cost of commodity programs.
- A guaranteed income for 10 years on acres entered into the program.
- Half the cost of establishing permanent cover of grass or trees on eligible land, to be paid by USDA.
- Valuable stands of grass or trees owned by the participating farmer or rancher at the end of the 10-year contract period. Trees also help improve air quality and enhance the esthetic value of lands.
- Increased wildlife habitat as a result of trees and grass planted under the program.
- An opportunity for added income for landowners and operators through the leasing of land for hunting, fishing, or other recreational purposes.
- More windbreaks, which, among other benefits, can be used for field snow and moisture management and for wind erosion control should the field be returned to cropland after the contract period.

Sodbuster Provision

The sodbuster provision benefits communities by encouraging farmers to either keep fragile lands in grass or immediately start applying necessary conservation measures to control erosion. It benefits everyone by maintaining long-term productivity and cutting down on the costs of dealing with the effects of erosion onsite and offsite.

Swampbuster Provision

The wetlands preserved, rather than converted to crop production, will benefit everyone by:

- Serving as important habitat for waterfowl, fish, and other wildlife. Wetlands provide critical food, nesting, and breeding areas.
- Providing additional sites for a broad range of recreational activities.
- Helping to control floods. Through their capacity to temporarily store runoff, wetlands lower "flood peaks" and slow the velocity of floodwaters, thereby reducing damage from high water.
- Recharging ground water. Water which flows into wetland areas can percolate through the wetland to replenish ground water supplies.
- Improving water quality. Wetland vegetation traps and takes up nutrients, sediment, toxic chemicals, and other pollutants from agricultural, urban, and other runoff.

Conservation Compliance

The conservation compliance provision benefits producers and their communities by helping ensure the sustained productivity of highly erodible croplands now being cropped. To continue to be eligible for USDA benefits, farmers producing on such land must have developed and begun actively applying a conservation plan on that land by January 1, 1990, and have a conservation system completely in use by January 1, 1995. This will help protect the land for future generations.

Conservation Easements

Conservation easements benefit those producers whose Farmers Home Administration loans are in or near default by partially canceling the loan in return for placing their wetland, highly erodible land, and fragile land in conservation, recreation, or wildlife uses for periods of at least 50 years.

This fact sheet provides general information on a key concept in the Food Security Act of 1985. Published rules and regulations are available at local USDA offices.

All USDA programs and services are available without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

United States Department of Agriculture

Soil Conservation Service

Room 200, Federal Building
316 North Robert Street
St. Paul, MN 55101

March 1987

SUBJECT: MINNESOTA'S SOIL AND WATER CONSERVATION REPORT FOR FY 1986

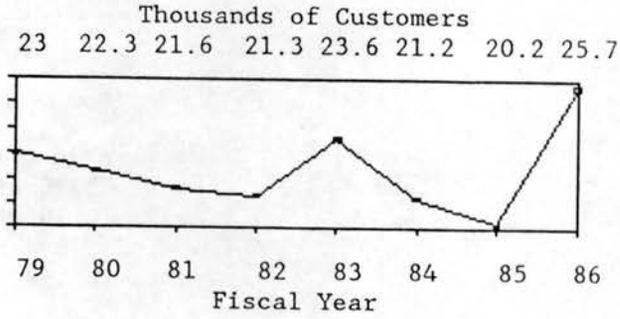
FROM: GARY R. NORDSTROM, STATE CONSERVATIONIST, SCS

Our fiscal year 1986 efforts were enhanced especially due to the cooperation and assistance of local soil and water conservation districts, Extension Service, the Minnesota Department of Natural Resources, and the Minnesota Soil and Water Conservation Board.

During our 1986 fiscal year, 1,932 new individuals, groups or units of government signed up through SWCD's for SCS technical assistance. Of a total of 25,738 customers assisted during the year, 8,609 agreed to carry out the work necessary to protect their land by implementing the beneficial features of a conservation plan. As a result of this effort we provided protection to an additional 666,000 acres of land. Our SCS budget was $14 million dollars. Only Texas and Colorado exceeded our 661,179 acres of CRP enrolled land on 7,308 farms (as identified by ASCS). We also awarded the first construction contract on the South Zumbro Watershed Project in Olmsted County and began construction on the first phase of the recreation facilities in the Canby Creek Watershed in SW Minnesota.

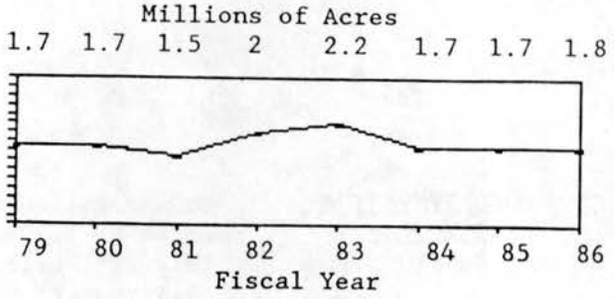
TECHNICAL HELP TO LAND USERS

In cooperation with SWCD's, we provided technical help to 25,738 individuals, groups and units of government.



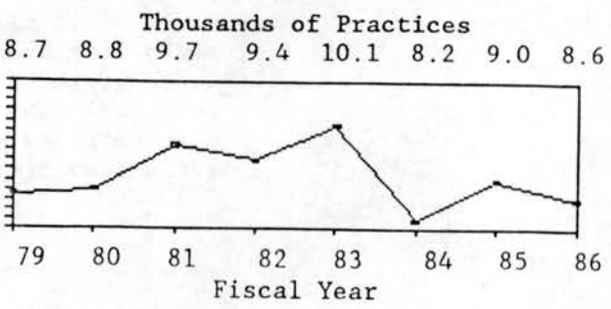
SOIL SURVEY ACRES MAPPED

In cooperation with the MN Agricultural Experiment Station, we mapped 1,807,015 acres. About 34.1 million acres in Minnesota are now mapped.



CONSERVATION PRACTICES APPLIED

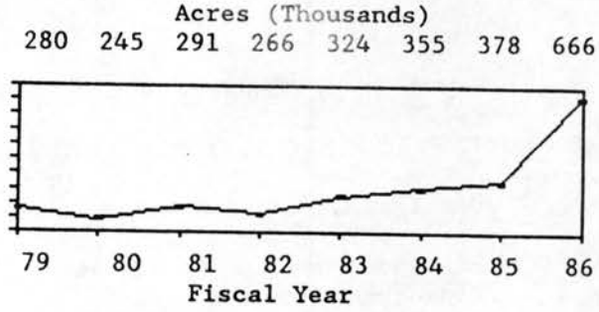
In cooperation with local SWCD's, we applied approximately 8,600 conservation practices.



The Soil Conservation Service is an agency of the Department of Agriculture

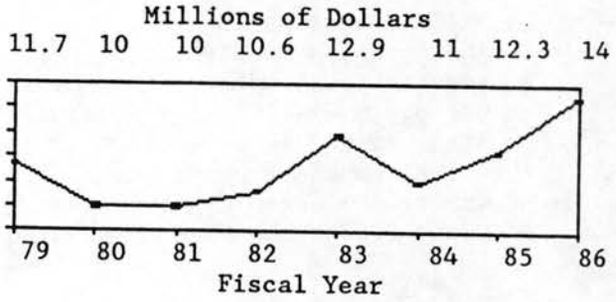
CROPLAND ACRES PROTECTED

SCS and SWCD technical assistance resulted in the protection of 666,000 acres - a dramatic increase of 176 percent over fiscal year 1985.



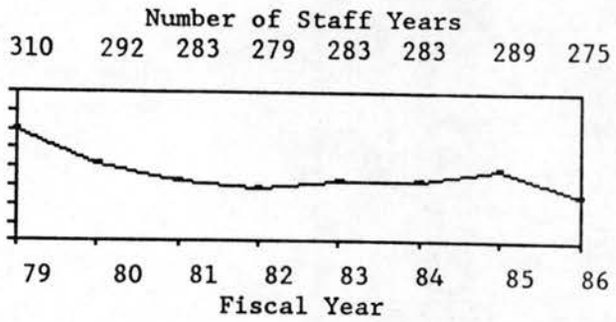
SCS CONSERVATION APPROPRIATIONS

Our 1986 budget was about 14 million dollars. Slightly over $2.4 million was for RC&D and watershed financial assistance.



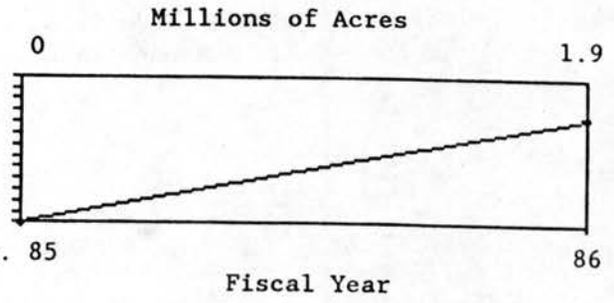
SCS STAFFING

We have gone from a high of 310 staff years in 1979 to a low of 275 staff years in 1986.



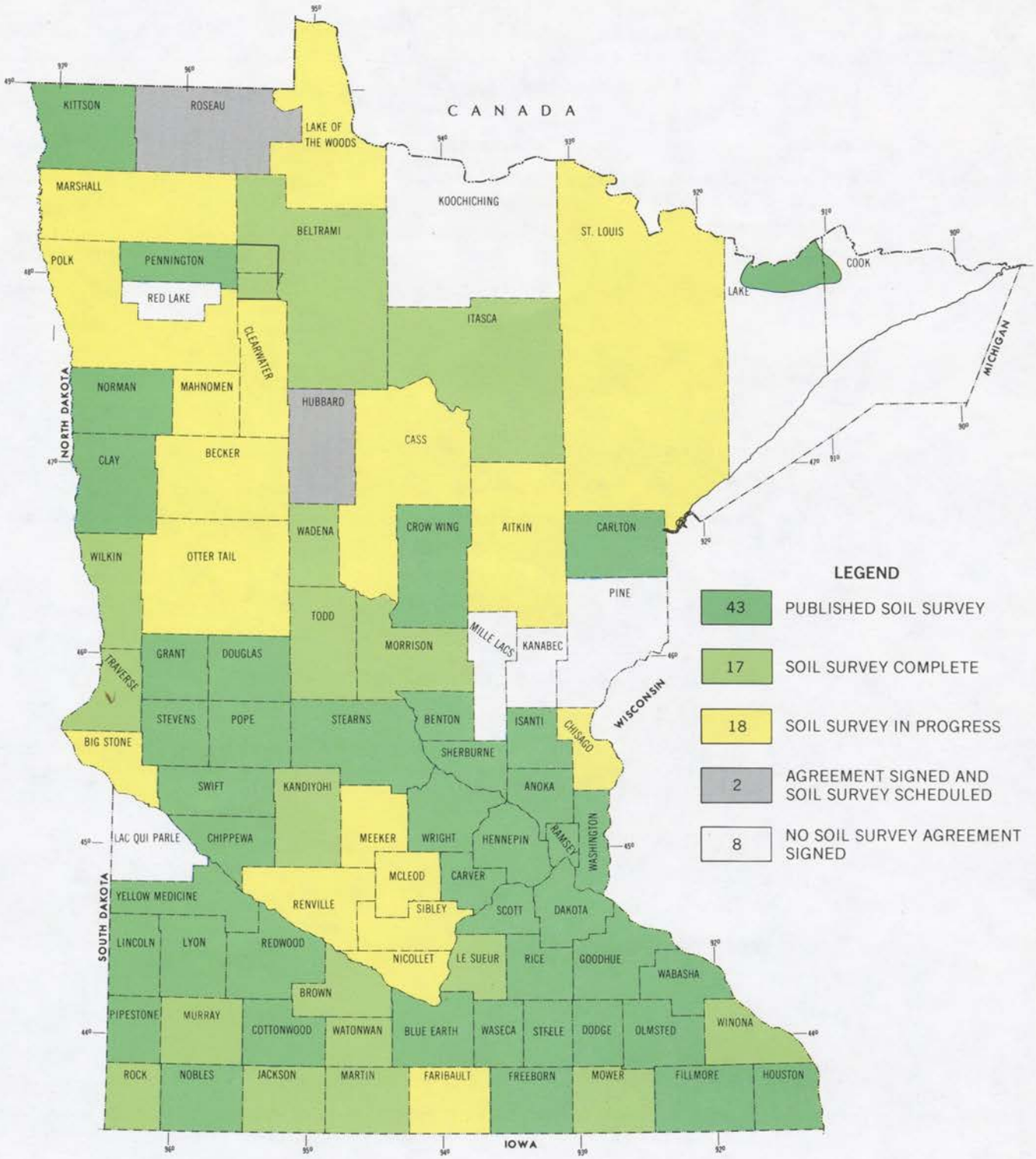
CONSERVATION RESERVE PROGRAM

USDA enrolled 661,179 acres on 7,308 farms. This will bring $342 million into Minnesota during the next 10 years. We have 1.9 million CRP acres eligible using 1986 eligibility criteria. Only Texas and Colorado have enrolled more CRP acres than Minnesota.



U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE



LEGEND

43	PUBLISHED SOIL SURVEY
17	SOIL SURVEY COMPLETE
18	SOIL SURVEY IN PROGRESS
2	AGREEMENT SIGNED AND SOIL SURVEY SCHEDULED
8	NO SOIL SURVEY AGREEMENT SIGNED

STATUS OF SOIL SURVEYS
MINNESOTA
APRIL 1987

0 25 50 75 100 MI

0 50 100 150 KM

SOURCE: Data compiled by SCS Field Personnel.

REVISED APRIL 1987 1000115

USDA-SCS-NATIONAL CARTOGRAPHIC CENTER, FT. WORTH, TX.-1987

FACT SHEET

SOIL SURVEY

U.S. Department of Agriculture
Soil Conservation Service

Land is one of our most important natural resources. Everyday people make decisions on how to use land. Each of us is affected directly or indirectly by those decisions. Some are good — others are not.

Regardless of your profession or occupation, **soil surveys can help you** with land use decisions.

What is a soil survey?

A soil survey is an inventory of the different kinds of soil in a county. Maps, with descriptive and interpretative materials in the published soil survey describe favorable and unfavorable soil properties for various uses.

Who uses a soil survey?

Soil surveys have many uses. Once you have decided on your purpose for using land, whether it be for a homesite, road, farm, factory, etc., the soil survey can help you locate soils with desirable properties.

Used wisely, knowledge of soils and their properties, gained from a soil survey can be very useful for:

- recreational areas, schools, sanitary landfill sites, parks, transportation and comprehensive development plans
- determining the suitability of shoreline areas for residential areas
- plotting property
- determining groundwater conditions and percolation rates for sewage disposal systems
- zoning to protect prime and good farmland
- county engineering projects such as road building and maintenance, ditch design and location of gravel sources
- determining sites for the disposal of municipal sludge
- forest management and other tree planting projects
- wildlife management
- determining eligibility for cost-sharing on soil conservation projects
- determining land rental rates
- agriculutural uses such as for farmers, farm managers, soil conservationists, agronomists, extension agents, vocational agriculture teachers, agricultural engineers, and agribusinesses
- contractors
- civil and sanitary engineers
- utility companies
- bankers
- home owners/home buyers
- realtors
- tax assessors
- land appraisers
- research and academic users

How is a soil survey financed?

This cost would be split equally between federal, state and county funds. Currently state and federal funds are committed to cover two-thirds of the soil survey cost. The cost is split over three to five years.

How is a soil survey made?

A county soil survey is made by soil scientists. They walk over the land and examine the soil with an auger to a depth of about five feet. As he/she examines each auger full of soil, the soil scientist records the properties that affect its use and management. After determining the extent or area of a specific kind of soil, the soil scientist marks its exact location on an aerial photograph. When all soils in a county are mapped and properties described, the maps and other information are assembled into a publication called a soil survey.

Who can I contact to learn more about a soil survey?

For more information about a soil survey, contact any of the following in your county:

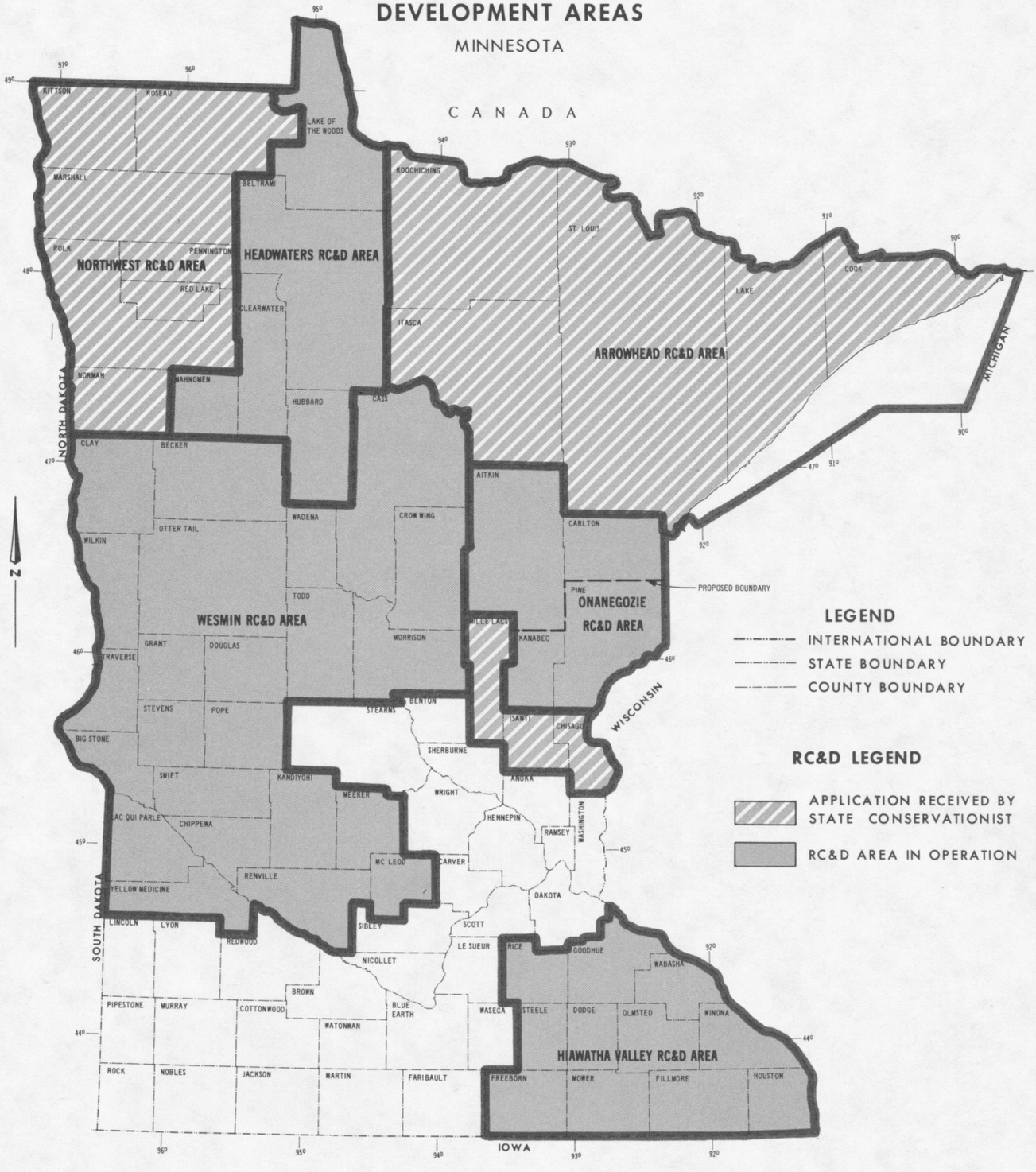
- Extension Service
- Soil Conservation Service
- Soil and Water Conservation District

U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

RESOURCE CONSERVATION AND DEVELOPMENT AREAS

MINNESOTA



LEGEND

- INTERNATIONAL BOUNDARY
- STATE BOUNDARY
- COUNTY BOUNDARY

RC&D LEGEND

- APPLICATION RECEIVED BY STATE CONSERVATIONIST
- RC&D AREA IN OPERATION

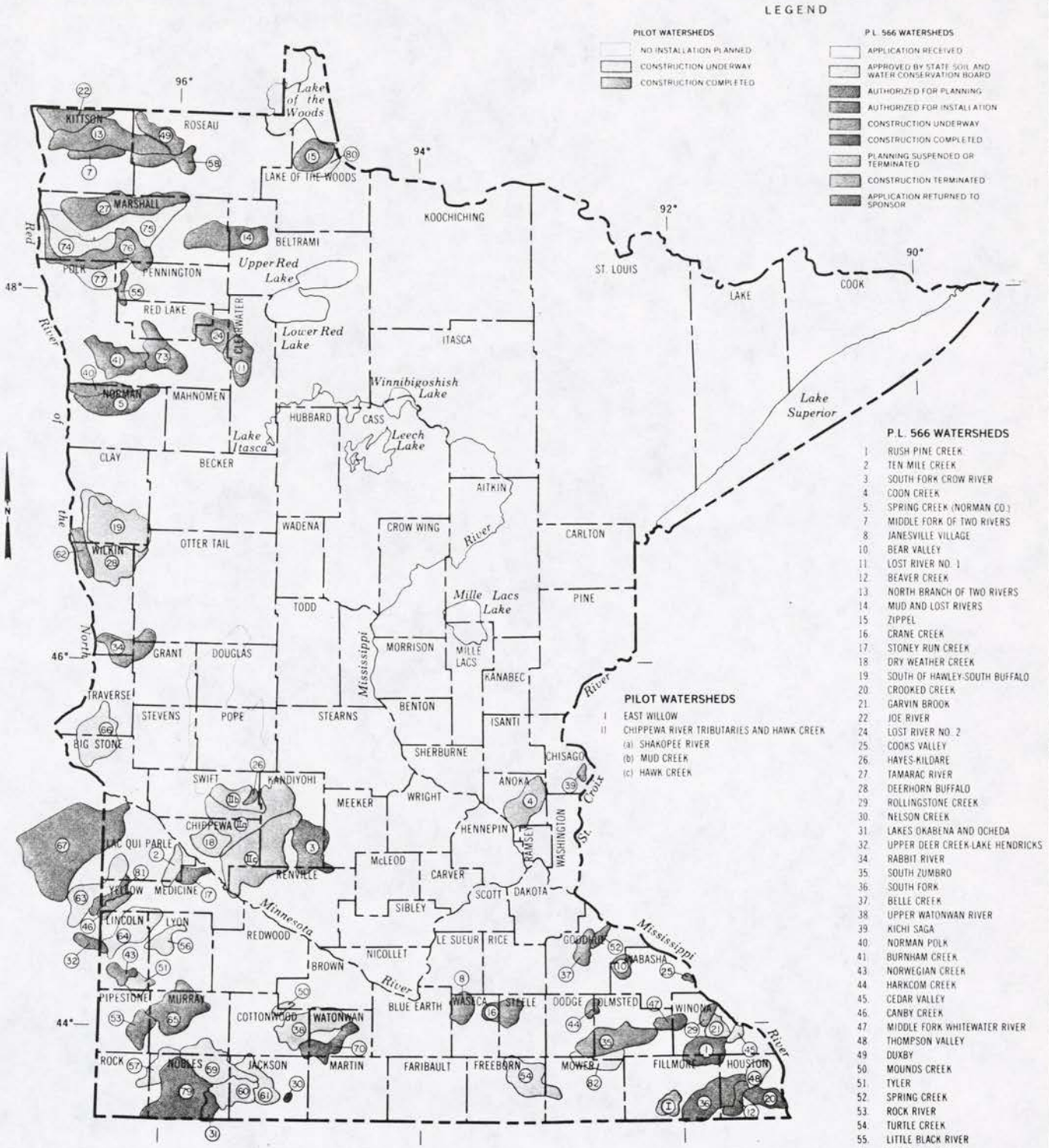
SOURCE:
FAMILY OF MAPS SCS DRWG. NO. 5,S-32,926 (4-75)
AND INFORMATION FROM FIELD TECHNICIANS.
ALBERS EQUAL AREA PROJECTION
USDA-SCS-NATIONAL CARTOGRAPHIC CENTER, FT. WORTH, TX.-1986

SCALE 10 0 10 20 30 40 50 60 MILES

REV 6-1986
5,P-37,964

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE



P.L. 566 WATERSHEDS

1. RUSH PINE CREEK
2. TEN MILE CREEK
3. SOUTH FORK CROW RIVER
4. COON CREEK
5. SPRING CREEK (NORMAN CO.)
7. MIDDLE FORK OF TWO RIVERS
8. JANESVILLE VILLAGE
10. BEAR VALLEY
11. LOST RIVER NO. 1
12. BEAVER CREEK
13. NORTH BRANCH OF TWO RIVERS
14. MUD AND LOST RIVERS
15. ZIPPEL
16. CRANE CREEK
17. STONEY RUN CREEK
18. DRY WEATHER CREEK
19. SOUTH OF HAWLEY-SOUTH BUFFALO
20. CROOKED CREEK
21. GARVIN BROOK
22. JOE RIVER
24. LOST RIVER NO. 2
25. COOKS VALLEY
26. HAYES-KILDARE
27. TAMARAC RIVER
28. DEERHORN BUFFALO
29. ROLLINGSTONE CREEK
30. NELSON CREEK
31. LAKES OKABENA AND OCHEDA
32. UPPER DEER CREEK-LAKE HENDRICKS
34. RABBIT RIVER
35. SOUTH ZUMBRO
36. SOUTH FORK
37. BELLE CREEK
38. UPPER WATONWAN RIVER
39. KICHI SAGA
40. NORMAN POLK
41. BURNHAM CREEK
43. NORWEGIAN CREEK
44. HARKCOM CREEK
45. CEDAR VALLEY
46. CANBY CREEK
47. MIDDLE FORK WHITEWATER RIVER
48. THOMPSON VALLEY
49. DUXBY
50. MOUNDS CREEK
51. TYLER
52. SPRING CREEK
53. ROCK RIVER
54. TURTLE CREEK
55. LITTLE BLACK RIVER
56. THREE-MILE CREEK
57. CHAMPEPEDAN
58. BADGER-SKUNK
59. JACK CREEK
60. OKABENA CREEK
61. HERON LAKE
62. COMSTOCK COULEE
63. FLORIDA CREEK
64. UPPER YELLOW MEDICINE
65. DES MOINES RIVER HEADWATERS
66. WEST BRANCH OF THE MUSTINKA
67. YELLOW BANK RIVER
70. SOUTH FORK WATONWAN
73. BADGER CREEK
74. MELGAARD SWIFT COULEE
75. MIDDLE RIVER
76. SNAKE RIVER
77. ANGUS-OSLO
79. KANARAN/A-LITTLE ROCK
80. BOSTIC CREEK
81. LAZARUS CREEK
82. UPPER NORTH BRANCH ROOT RIVER

WATERSHED PROTECTION AND FLOOD PREVENTION MINNESOTA

OCTOBER 1986

0 25 50 75 100 MI

0 50 100 150 KM

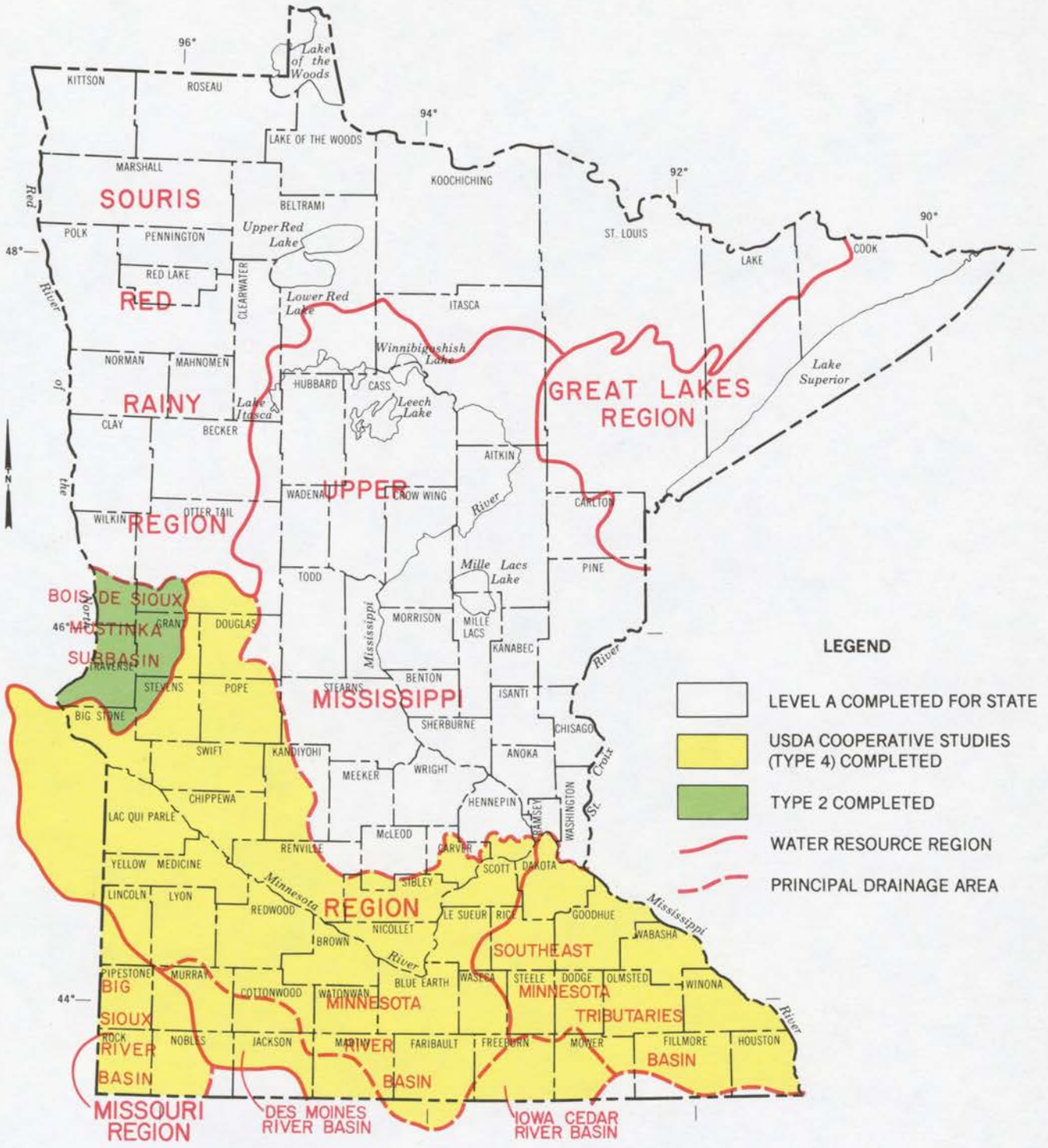
SOURCE: Data compiled by SCS Field Personnel.

REVISED OCTOBER 1986 5-R-38093

USDA-SCS-NATIONAL CARTOGRAPHIC CENTER, FT. WORTH, TX. 1986

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE



MAP A
RIVER BASIN INVESTIGATIONS
MINNESOTA

OCTOBER 1986

0 25 50 75 100 MI

0 50 100 150 KM

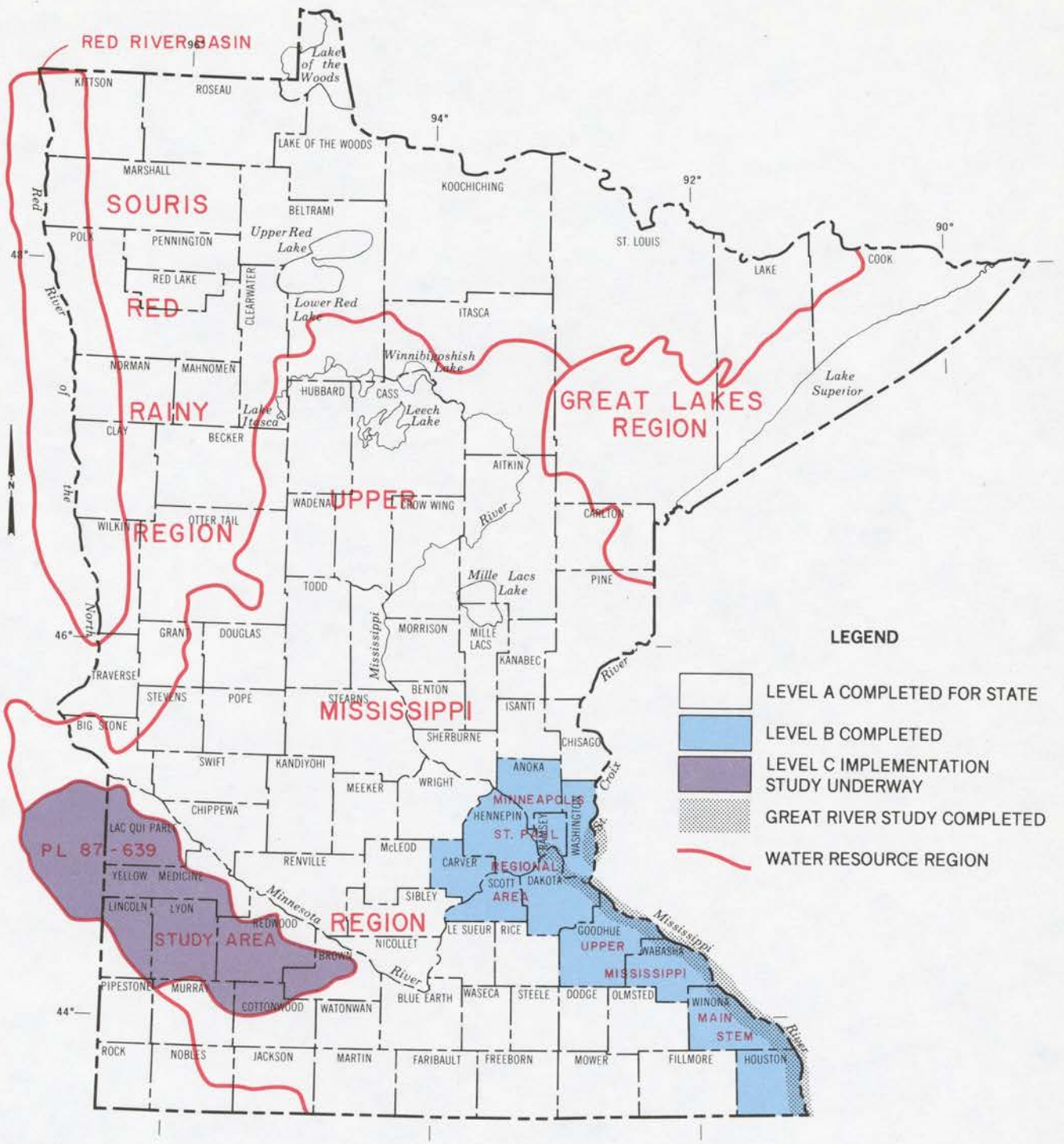
SOURCE: Data compiled by SCS Field Personnel.

REVISED OCTOBER 1984 5-0-37564

USDA-SCS-NATIONAL CARTOGRAPHIC CENTER, FT. WORTH, TX.-1986

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE



MAP B
RIVER BASIN INVESTIGATIONS
MINNESOTA

OCTOBER 1986

0 25 50 75 100 MI

0 50 100 150 KM

SOURCE: Data compiled by SCS Field Personnel.

REVISED OCTOBER 1984 5-0-37565

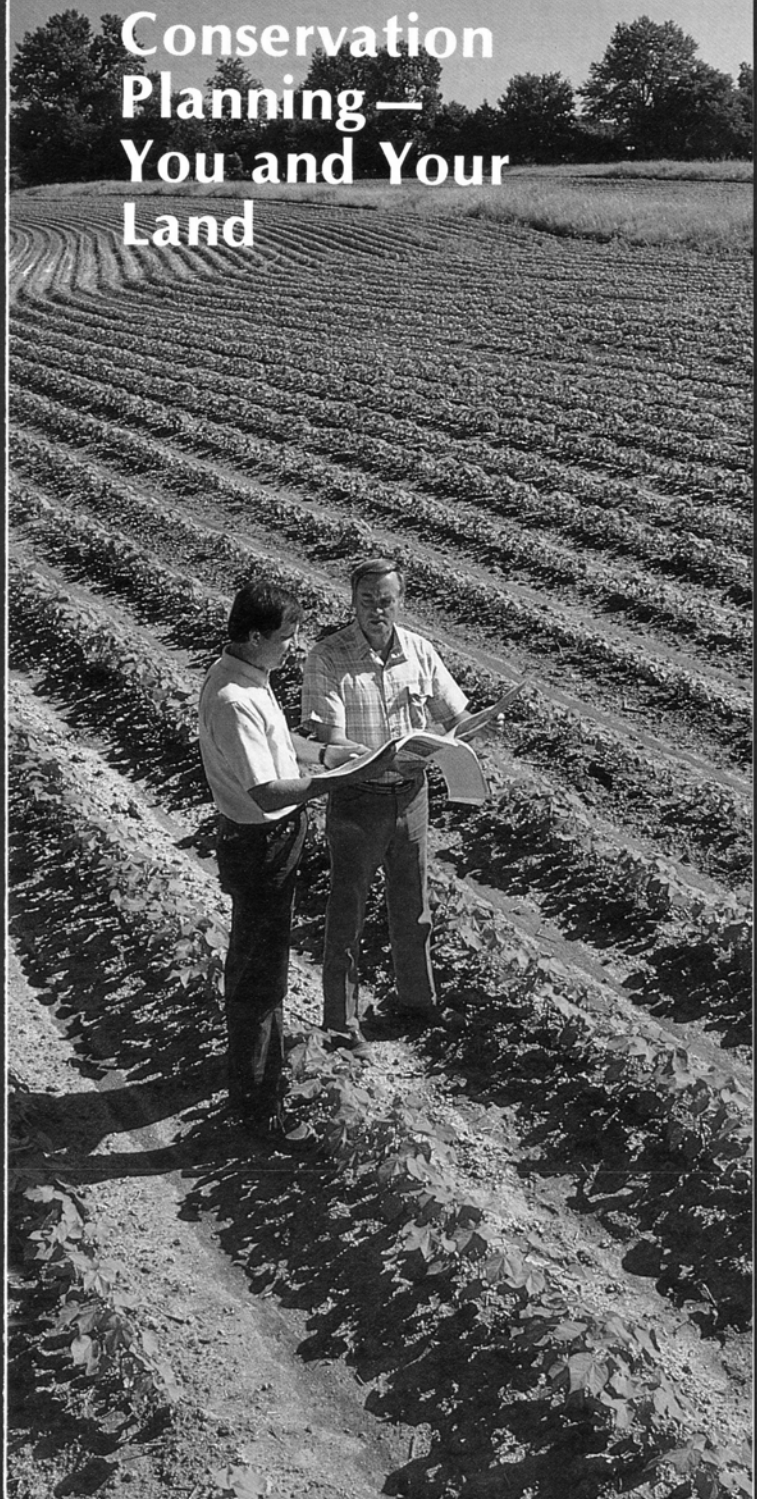
USDA-SCS-NATIONAL CARTOGRAPHIC CENTER, FT. WORTH, TX.-1986

United States Department of Agriculture

Soil Conservation Service

Program Aid Number 1376

Conservation Planning— You and Your Land



Conservation Planning
You and Your Land

Two-thirds of the land in America is owned by private landowners. These landowners are responsible for the present and future condition of the soil, water, and other natural resources on their land.

All land is not the same. Take a good look at the land you own or use. Observe how it differs from your neighbors'. Most likely your land has several soil types. Soils vary in depth, drainage, erodibility, natural productivity, slope, texture, and stoniness. Other resources—water, plants, and animals—also vary from one property to another. These characteristics will affect how you use your land. Because your land is unique, so should be the planning for its uses.

You use your land differently from anyone else. You don't have exactly the same equipment or manage the land the same. You don't grow the same crops, apply the same fertilizers, keep the same kind and number of livestock, or have the same goals and objectives. However, in some ways you are like all land users: you continually plan how to manage your land. Short-term plans may include crops to grow and livestock to raise or sell. Long-term plans may consider protecting or developing soil and water resources.

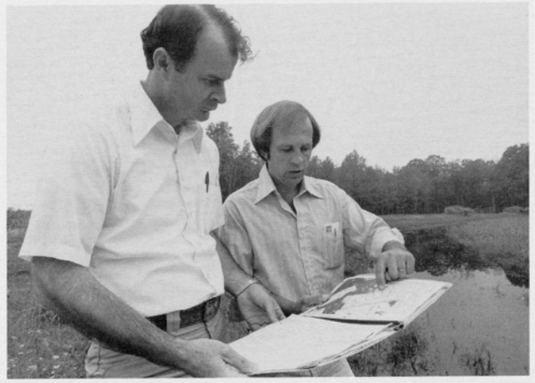
You probably do a lot of thinking and planning about how to farm more efficiently and how to protect the soil from wind and water erosion so that it will continue to produce good crops year after year. You may also plan how to use your land for purposes other than farming. This is just the beginning of conservation planning.

March 1986
Slightly Revised August 1987

Help is Available

Conservation planning assistance is available through the Soil Conservation Service (SCS), an agency of the U.S. Department of Agriculture. SCS provides free help through this voluntary participation program, which is available to all land users through the soil and water conservation districts. Conservation districts are local units of government which are guided by a governing board made up of local farmers, ranchers, other land users, and community leaders in a county.

Help from your local SCS soil conservationist may be requested through your conservation district. Although most SCS assistance is provided to farmers and ranchers on cropland, pasture, rangeland, and forest land, you can also get assistance with solving conservation problems on nonagricultural land uses, such as controlling erosion on construction sites or on public lands



A district conservationist and a farm manager discuss a conservation plan for a wildlife management farm.

Planning Together

Conservation planning involves several steps. The first step in planning is taking an inventory. Because a knowledge of soils is basic to planning the use and treatment of your land, SCS will provide you with a soils map, which includes a description of your soils and how they can be used. Each soil is described in terms of its texture, characteristics, capabilities, limitations, and erosion potential. SCS will also estimate soil erosion rates under present and planned land uses.

When you are ready to start, you and the soil conservationist will discuss the soils, your plans and goals, your resource problems, and your conservation program. You tell the soil conservationist which crops you want to grow, the livestock you want to keep, the wildlife or recreation uses you want to plan, and any other interests you have that will affect your land. The conservationist will have detailed data about your soil types and limitations, erosion potential, and production capability for your land and will help you interpret the data. Together you can explore different ways to overcome problems and to make better use of the soil. You can discuss soil and water management needs by individual fields on a total-farm basis.

Many things may be involved as you consider alternatives for your land. Major changes may be needed. Some cropland may need specific treatment to control erosion. Some cropland may need to be converted to use as pasture or for trees, recreation, or wildlife habitat. You may need to plant better forage species to improve rangeland or pasture. You may want to improve your woodland or improve wildlife habitat. You may have a good location for a farm pond for recreation, fire protection, livestock, or irrigation water. The conservationist can show you how these alternatives will meet your goals and also protect your land for many years.

The Decisions Are Yours

The next step is deciding exactly how you are going to use your land. The SCS conservationist will outline and discuss the different ways you can accomplish your goals and help you determine the effects on your total operation before you make the decisions.

Decisions are needed on both the use of the land and its treatment. When you make a decision on land use, you will need to consider how to treat each field to get the desired results. These treatments are known as conservation practices. Usually several practices are used in combination to solve resource problems, resulting in a resource management system.

For example, on level cropland, the practices may be fertilizing and liming, crop rotation, and a form of crop residue management, such as no-till. On sloping cropland, you may need the additional resource protection of a terrace system, stripcropping, or grassed waterways.

On pasture, you may decide to plant both cool- and warm-season grasses or grasses and legumes. This will permit rotating pastures to provide grazing through the summer and fall months without weakening pasture vitality or making the land susceptible to erosion.

On forest land, you may plan to selectively thin the stand by cutting firewood, or you may plan to protect young trees from livestock grazing. Specific areas, borders, and fields may be selected to manage for wildlife habitat.

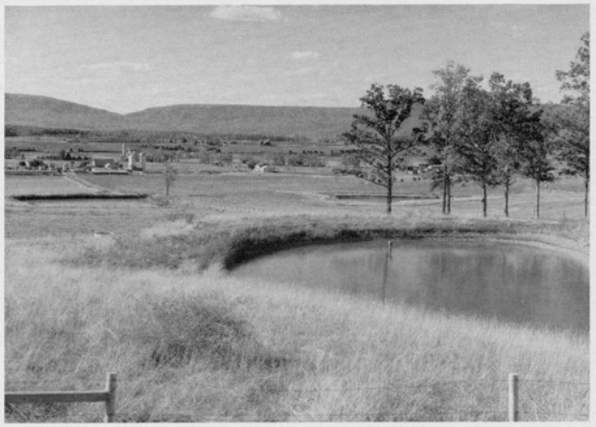
You make the decisions. The SCS conservationist can give many good alternatives and make some economic comparisons, but you must decide what you want to do, when, and how. Consider your available time, equipment, and economic situation.

The SCS conservationist can help you understand these conservation practices, how they fit together in a resource management system, and what is necessary to provide the maintenance for continued effectiveness in the future. He or she will record your decisions and other suggestions in your plan and will help you in scheduling and applying planned conservation. This plan will provide a guide for you for the next several years. It can be modified as your goals and objectives change.

Applying Conservation Practices

The final step in your conservation plan is putting the plan into operation. You and the conservationist select the best time to build terraces, waterways, and other soil-conserving measures. Other practices that do not involve construction, such as crop residue use, field borders, and stripcropping, can be scheduled to fit into your operation at the best time.

SCS can assist with applying the practices, such as laying out grade lines for terraces, contour lines for stripcropping, and blueprints for water control structures. They have information about tree and shrub nurseries, and they can direct you to neighbors who have applied conservation practices similar to those you will be using. Special assistance may also be obtained from other federal, state, and local agencies; from private companies or organizations; and from SCS specialists such as foresters, agronomists, range conservationists, and biologists.



SCS assisted in designing these three ponds for irrigation, wildlife habitat, and livestock watering.

Keep Your Plan Current

Your planning decisions, written into the conservation plan, provide you with a ready reference guide for your year-to-year operations. Market prices or other circumstances may change, making a change in your planning decisions and your conservation plan desirable. SCS conservationists can help you revise the land use and conservation treatment where needed.

Remember, in conservation planning—

- The program is voluntary and flexible
- You make the decisions and carry them out, including maintenance for a long and useful life of practices installed
- It is your plan for the land you own or use
- SCS and conservation districts are ready to help you.

Corn is being planted in crop stubble between terraces.

For More Information

For assistance and more detailed information, contact your local conservation district or the Soil Conservation Service. They are listed in the telephone directory. The Soil Conservation Service is listed under United States Government, Department of Agriculture, Soil Conservation Service. Assistance is available without regard to race, creed, color, sex, age, handicap, or national origin.

Selective cuttings are made periodically in this well-managed woodlot.