



Minnesota Board of Water and Soil Resources.
Minutes.

Copyright Notice:

This material may be protected by copyright law (U.S. Code, Title 17). Researchers are liable for any infringement. For more information, visit www.mnhs.org/copyright.

February 2000



One West Water Street
Suite 200
St. Paul, MN 55107
(651) 296-3767
Fax (651) 297-5615

Field Offices

Northern Region:

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

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

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

Southern Region:

261 Highway 15 S.
New Ulm, MN 56073-8915
(507) 359-6074
Fax (507) 359-6018

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

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

Metro Region:

One West Water Street
Suite 250
St. Paul, MN 55107
(651) 282-9969
Fax (651) 297-5615

An equal opportunity employer

Printed on recycled paper

DATE: February 14, 2000

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

FROM: Ronald D. Harnack, Executive Director *RDH*

SUBJECT: February 23, 2000 BWSR Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, February 23, beginning at 9:00 a.m. The meeting will be held in the BWSR conference room at One West Water Street, St. Paul. The following information pertains to agenda items:

Consent Agenda:

1. Comprehensive Local Water Plan Extension Requests for Kandiyohi, McLeod and Renville Counties. **DECISION**

Committee Recommendations:

Metro Sub-Committee:

1. Approval of City of Savage Comprehensive Wetland Protection and Management Plan: The City of Savage received an LCMR Decision-Making Grant from BWSR in 1998. The City completed the Comprehensive Wetland Plan in December of 1999. The Metro Sub-Committee reviewed the Plan January 11, 2000. The Plan now needs to go to the full Board for approval (i.e. to not disapprove it). The City is currently developing the associated ordinance to implement the plan. The ordinance will soon be ready to adopt and the BWSR should approve of the Plan so the City can adopt it and the ordinance before this construction season. **DECISION**

Old Business

1. Legislative Update – Ron Harnack **INFORMATION**

New Business

1. Special Purpose District Pilot Projects: The Board of Government Innovation and Cooperation—Special Purpose District Pilot Projects—Legislative Initiative - The Board of Innovation was created by the legislature in the early 1990's in part to assist general-purpose governments to implement agreed-to consolidations and cooperative efforts. The Board has the authority to waive certain statutory required processes, rules and administrative proceedings in order to streamline consolidations. The Board also has planning and

implementation grants available as incentives to local government consolidation and cooperation. The Minnesota Planning Office and the Board of Innovation recently approached the BWSR regarding legislation to open up the Board of Innovation statute to special purpose districts that deal with natural resources issues. BWSR staff helped draft the enclosed language which would create the opportunity for willing special purpose districts and counties to come forward with pilot project proposals to demonstrate alternative models for natural resource program delivery at the local level. Planning and implementation funding grants would be available. The legislation would be strictly voluntary between willing local governments. It would offer a proactive opportunity for the state to partner with local governments that are seeking alternative arrangements to accomplish their mission. DISCUSSION

2. Minnesota Waterfowl Association (MWA) Special Recognition Award: The Board of Water and Soil Resources received the MWA's Special Recognition Award at the MWA conservation awards banquet on February 4. BWSR is the first state agency recipient of this special award given when merited in order to recognize an individual, company or organization for their extraordinary efforts and accomplishments which achieve recognizable impacts for the betterment of Minnesota's wetland habitats, waterfowl and wetland wildlife. INFORMATION
3. Integrated Funding System: Faye Sleeper, MPCA. The Natural Resources Block Grant (NRBG) resulted in significant grant administration efficiencies for the state and local units of government by coordinating local water management, feedlots (PCA), wetlands, shoreland management (DNR) into one process. There are other opportunities for continued grants administration efficiencies for competitive grants, i.e. clean water partnership, EQIP, 319, water plans, water management challenge grants, SRF loans, etc. Faye will discuss how PCA is assessing their internal grants systems including considerations for base and competitive grants by river basins. INFORMATION
4. Revisiting Reform Project: The Ventura administration, through Minnesota Planning, is working on the Revisiting Reform Project initiative, an analysis of executive branch reform efforts made during the administrations of Governors Carlson, Perpich and Anderson. The administrative advisory committee has met to review BWSR's role. I look forward to agency member perspectives as part of the discussion. INFORMATION/DISCUSSION

If you need additional information, please feel free to give me a call. If bad weather conditions exist in your area and you are unable to attend the meeting due to travel restrictions, please notify the board office by noon on Tuesday, if possible. Travel safely. I look forward to seeing you on the 23rd!

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET, CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
FEBRUARY 23, 2000**

PRELIMINARY AGENDA

9:00 a.m. Call Meeting to Order

Adopt Agenda

Reports

- Chair – Kathleen Roer
- Executive Director – Ron Harnack
- Dispute Resolution Committee – Jim Haertel
- Wetlands Committee – Darrell Bruggman
- Cost-Share/Soil Conservation Committee – Dwain Otte
- Education and Public Relations Committee – Paul Krabbenhoft
- Financial Oversight Committee – Ginny Imholte
- Administrative Advisory Committee – Kathleen Roer

Agency Reports

- Department of Agriculture
- Department of Health
- Department of Natural Resources
- Minnesota Extension Service
- Pollution Control Agency

Consent Agenda

1. Comprehensive Local Water Plan Extension Requests for Kandiyohi, McLeod, and Renville Counties – Doug Thomas –
DECISION

Committee Recommendations

Metro Subcommittee:

1. Approval of City of Savage Comprehensive Wetland Protection and Management Plan – Doug Snyder – DECISION

Old Business

1. Legislative Update – Ron Harnack – INFORMATION

New Business

1. Special Purpose District Pilot Projects – The Board of Government Innovation and Cooperation – Legislative Initiative - Jim Birkholz – DECISION
2. Minnesota Waterfowl Association (MWA) Special Recognition Award – Ron Harnack – INFORMATION
3. Integrated Funding System – Faye Sleeper, MPCA – INFORMATION
4. Revising Reform Project – Ron Harnack – INFORMATION/DISCUSSION

Advisory Comments

- Minnesota Association of Townships (MAT)
- Minnesota Association of Conservation District Employees (MACDE)
- Minnesota Association of Soil and Water Conservation Districts (MASWCD)
- Minnesota Association of Watershed Districts (MAWD)
- Natural Resources Conservation Service (NRCS)

Upcoming Meetings

- Next BWSR Meeting, March 22, 2000

Adjourn

Consent Agenda

1. Comprehensive Local Water
Plan Extension Requests for
Kandiyohi, McLeod, Renville
Counties
DECISION

KANDIYOHI COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

Kandiyohi County has a Comprehensive Local Water Plan (CLWP) which was approved by the Minnesota Board of Water and Soil Resources on December 20, 1995. Kandiyohi County then locally adopted their CLWP via a county resolution dated January 2, 1996. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting CLWP extensions to counties where other planning efforts (water or watershed level) are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other water planning efforts would benefit the CLWP update.

Kandiyohi County is an active player in several watershed level planning efforts currently underway: Chippewa River Watershed Project; Hawk Creek Watershed Project; Upper Shakopee Watershed Project; Crow River Watershed Project; Diamond Lake Clean Water Partnership Project; Middle Fork Crow River Lakes Association Clean Water Partnership Project (pending). Kandiyohi County is also working on its Comprehensive Land Use Plan. All of these efforts require county staff time and work effort.

Board Conservationist Tom Fischer recommends approval of Kandiyohi County's two-year extension request.

MCLEOD COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

McLeod County has a Comprehensive Local Water Plan (CLWP) which was approved by the Minnesota Board of Water and Soil Resources on May 22, 1996. McLeod County then locally adopted their CLWP via a county resolution dated August 6, 1996. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting CLWP extensions to counties where other planning efforts (water or watershed level) are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other water planning efforts would benefit the CLWP update.

McLeod County is an active player in two watershed level planning efforts currently underway: a lead role in the Crow River Watershed Project; a partnering role in the High Island Creek Watershed Clean Water Partnership Project (pending). The county is working with the Buffalo Creek Watershed District to compile water quality monitoring data along specific portions of Buffalo Creek. The county is also working through the process of amending its zoning ordinance and feedlot ordinance as well as finishing up its county-wide feedlot inventory. All of these efforts require county staff time and work effort.

Board Conservationist Tom Fischer recommends approval of McLeod County's two-year extension request.

RENVILLE COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

Renville County has a Comprehensive Local Water Plan (CLWP) which was approved by the Minnesota Board of Water and Soil Resources on June 26, 1996. Renville County then locally adopted their CLWP via a county resolution dated July 16, 1996. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting CLWP extensions to counties where other planning efforts (water or watershed level) are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other water planning efforts would benefit the CLWP update.

Renville County and SWCD are active players in several watershed level planning efforts currently underway: Hawk Creek Watershed Project; Crow River Watershed Project; High Island Creek Watershed Clean Water Partnership Project (pending); Suland Project (portions of the Middle MN River Watershed [pending]). Other county activities in process or planned include GIS mapping and revision of the Renville County Comprehensive Plan. Additionally, the Renville SWCD had the role of coordinator for the Renville CLWP for the past few years. This changed as of January 2000. An agreement was reached whereby the county took over the coordinator/administrative role while the SWCD will focus on CLWP technical/implementation activities. A good fit for both parties. However, this transfer of coordinator/administrative duties will require a learning curve for the county staff to properly coordinate the CLWP in Renville County. Lastly, the SWCD has an extremely heavy workload with the Conservation Reserve Enhancement Program (CREP), as well as RIM, within Renville County. Renville SWCD continues to be a leader in CREP and RIM easement activities in Minnesota. Continued success of CREP as well as the other planning efforts will require county and SWCD staff time and work effort.

Board Conservationist Tom Fischer recommends approval of Renville County's two-year extension request.

New Business

4. Revisiting Reform Project
INFORMATION/DISCUSSION



Row

JAN 06 2000

Monday, January 3, 2000

TO: Agency Contacts

FROM: Peggy Byrne, Project Coordinator *Peggy*

RE: Revisiting Reform Project

I am sending you a brief prospectus on the Revisiting Reform Project along with the research questions that have been developed. I have also enclosed a copy of the gubernatorial reform recommendation/s that most impact your agency so that you are able to review and appropriately respond to the survey questions.

Project timeline is as follows:

1. Agencies will have until **March 1, 2000** to complete response
2. Minnesota Planning will compile, review, summarize information into a draft report in April
3. Jointly sponsored workshop will be scheduled at the Humphrey Institute for May or early June to discuss findings
4. Final report will be completed by June, 2000

Thank you for your help with the project. I look forward to working with you. Please feel free to call me with any questions or comments you may have about the project. I can be reached at 296-2908.

658 Cedar St
St. Paul, MN 55101

Telephone:
651-296-3937

Facsimile:
651-296-3690

Toll Free:
800-627-7524

Website:
www.mnplanning.org

© 1999 Minnesota Planning
All rights reserved.

REVISITING REFORM

Minnesota Planning, the Department of Administration and the Hubert H. Humphrey Institute are doing an analysis of executive branch reform efforts initiated between 1972 and 1992. The analysis will cover reform efforts made during the administrations of Governors Carlson, Perpich and Anderson and will encompass recommendations made by LEAP, Issue Teams, STEP, CORE as well as a report entitled *An Agenda for Reform* by Vin Weber and John Brandl.

The most recent commission (CORE, 1992) to work on comprehensive reform in state government commented on the 12 major studies of state government and management since 1910. "Most of these efforts had limited success. A review of past reports shows that in many cases the same recommendations for reform appeared year after year, only to be adopted 10-50 years later, if at all. This record is consistent with the history of reform efforts in other states... State government must be reformed to provide more effective and efficient services in order to address these organizational, economic and demographic realities."

For years, legislative criticism has been leveled and queries made about "whatever happened with the recommendations from the last reform [or study] we funded?" In fact, beyond individual efforts to implement selected recommendations, there has not been a coordinating oversight role identified to monitor, track or to ensure implementation of recommendations from executive branch reform efforts.

A number of good reasons exist to take a more in depth look at the results of previous executive branch reform efforts:

- The Revisiting Reform Project is integral to the "Service, Not Systems" portion of the Governor's Big Plan and more specifically to State Departments getting the "Best Bang for the Buck".
- During the new administration's first years of learning and assessing, the analysis will provide leadership with a very rich and important historical perspective and context "on the dawn of the new millennium".
- The results will provide a very positive way of demonstrating that, contrary to popular belief, a lot of good progress has been made as the result of reform efforts.
- There are many good, viable ideas and recommendations made over the course of the last 20 years which were never implemented and which may still be or finally be relevant. Reasons may no longer exist as to why some recommendations were not implemented and new leadership brings a different set of skills and values.
- The study results could provide useful information for the Governor and the Department of Finance as they begin work on the next budget.

- Information about what worked and didn't work, and why, will prove valuable in helping to determine how to effectuate change within this and future administrations.

Other good reasons exist for doing the Revisiting Reform Project. The administration would be able to

- Forego a new, formal reform commission that most people have come to expect (with growing cynicism) with the election of a new governor.
- Provide the long-sought-after answer to the question of whatever happened to the recommendations from all the previous reform studies.
- Cut across a broad base of expertise and ideas from both DFL and Republican administrations generated during previous reform efforts.
- Help forge a process that will ensure that as much if not more attention is paid to the implementation of good ideas as well as the development of good ideas.

A half-day workshop co-sponsored by Minnesota Planning, the Department of Administration, the Humphrey Institute and the Citizens League is being planned to discuss gubernatorial reform and reform processes after the data has been collected and summarized. A small advisory team has been created to oversee the project.

REVISITING REFORM RESEARCH QUESTIONS

State Agencies and Reform Recommendations:

RE: LEAP, Issue Teams, STEP (1972-1984)

- Review and provide detailed information on how recommendations affected your agency. Please comment on both content and reform process.

RE: CORE, Brandl/Weber Report (1985-present)

- Which recommendations were successfully implemented? Why?
- Which recommendations were not implemented? Why not?
- Do you think this recommendation should be reconsidered at this time?
- Please comment on both content and reform process.

General

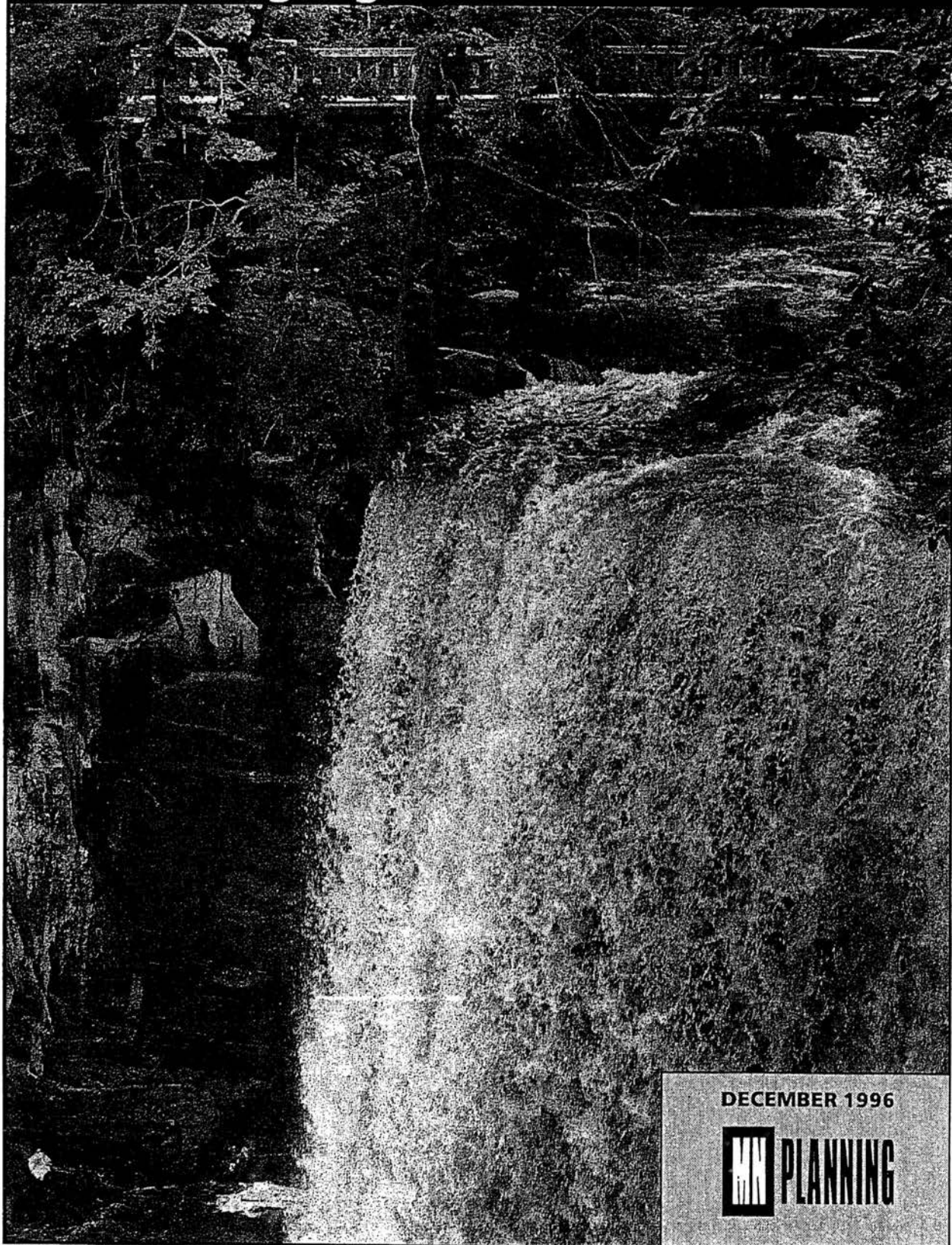
- Give some examples of reform efforts or projects your agency initiated that were successful and why. What were the barriers to implementation?
- What innovations or reforms are your agency currently considering or what reforms do you think should be considered?
- What are some relevant, successful examples of reform efforts or processes that you might be aware of elsewhere?
- What do you think is needed to bring about effective gubernatorial "reform"?

Agency Staffing Reform Effort (Dept. of Administration Only):

- How were the reform commissions or studies set up? Who participated?
- How was public input considered?
- What subject areas or issues were selected for study, how and why?
- Were there any themes or issues that came up more than once or twice?
- What prioritization and implementation strategies were there (what was the plan for carrying out the recommendation)?
- What kind of oversight responsibility was there (how was the plan implemented and who had responsibility to see that it was implemented)?

Crosscurrents

Managing Water Resources



DECEMBER 1996

MW PLANNING

A System Designed Purposefully — or Haphazardly

Minnesota's environmental system can be categorized as a collection of advocacy agencies, concluded the Commission on Reform and Efficiency in 1993 when they recommended combining agencies. They found that each agency presents one or more differing perspectives that can lead to gridlock and untimely decisions.

Each water resource management agency has a distinct perspective. The Department of Natural Resources' conservationist bent favors controlled use and systematic protection of resources. The Pollution Control Agency leans more toward the environmentalists perspective of protecting resources from destruction. The Department of Health is an advocate and protector of public health, while the Department of Agriculture emphasizes a strong agricultural economy, including support of farmers and agribusiness. The Board of Water and Soil Resources provides resources to local units of government and advocates on their behalf. The state level coordinating role goes to the Environmental Quality Board, which serves broad public interests and as a forum for discussions of conflicting issues by the environmental agencies.

Yet this might be just the system that the state intended. The system meets the needs of various interest groups and gives them a voice in state government decision-making that they might not have with only one agency. Major decisions are made with full public scrutiny. Water resource issues are complex and far-reaching, and agencies dealing with agriculture, health, public safety, natural resource

management and pollution control all have legitimate interests in them. The Office of the Legislative Auditor noted in its 1987 report, *Water Quality Monitoring*, that the major rationale for this system is that separate agencies can better advocate for their specific areas of responsibility. In addition, the external checks and balances of the system can foster creative tension and diversity in dealing with issues.

As noted in *State Water Management: Reorganization and Consolidation*, "Despite administrative complexity and the fragmentation and overlap that may occur among state water management agencies, Minnesota traditionally has supported a system of strong, competing agencies, each concerned with its own duties and specific goals. In political terms, an advocacy system promotes competition and increases the public representation of each goal or interest and highlights political choices. Conflicts and tradeoffs in such a system are meant to be solved through the political rather than the administrative process."

The state's system of allowing for multiple types of special purpose districts gives many choices to local governments and citizens in getting things done. They can form a lake improvement district to focus attention on a problem or a watershed district if a county or other unit is not taking necessary actions.

Barriers

While agencies have made strides toward achieving the Legislature's goals and outcomes, barriers impede further progress. Inflexible funding sources and rules, planning that is unconnected to legislative decisions or efforts of other agencies and levels of government, differing regional structures and decision-making procedures, and lack of fiscal and technological capacity all inhibit change. In addition, legislative authorities and responsibilities for some issues are at times vested in multiple agencies with no one agency clearly in charge. These barriers can affect all outcome areas.

Agency Funding Can Restrict Change and Cooperation

Funding for water resource management — and environmental programs in general — has become less flexible. Over the past two decades, funding has shifted from state general fund and federal dollars to fees. Dollars from the state general fund fell from 74 percent of overall spending in 1980 to slightly more than 50 percent in

1993 and the proportion of funds from this source has continued to decline. General funds for the Department of Health's drinking water protection program shrank from 57 percent in 1988 to zero in 1996. While fees can be a stable source of funding, they also can reduce flexibility. The Minnesota Environment and Natural Resources Trust Fund, established in 1988, was expected by some agencies to provide a stable source of funding for long-term water-related needs. While a variety of shorter term water projects have received funding, long-term monitoring needs have not.

Money from fees often is restricted to activities directly related to the purpose of the fee, limiting agencies' abilities to undertake cooperative efforts. The Department of Health drinking water protection regional personnel could fulfill some of the Pollution Control Agency's program needs, except that funding restrictions prohibit them from working in areas outside their program. Such restrictions also can limit agencies' ability to assign staff

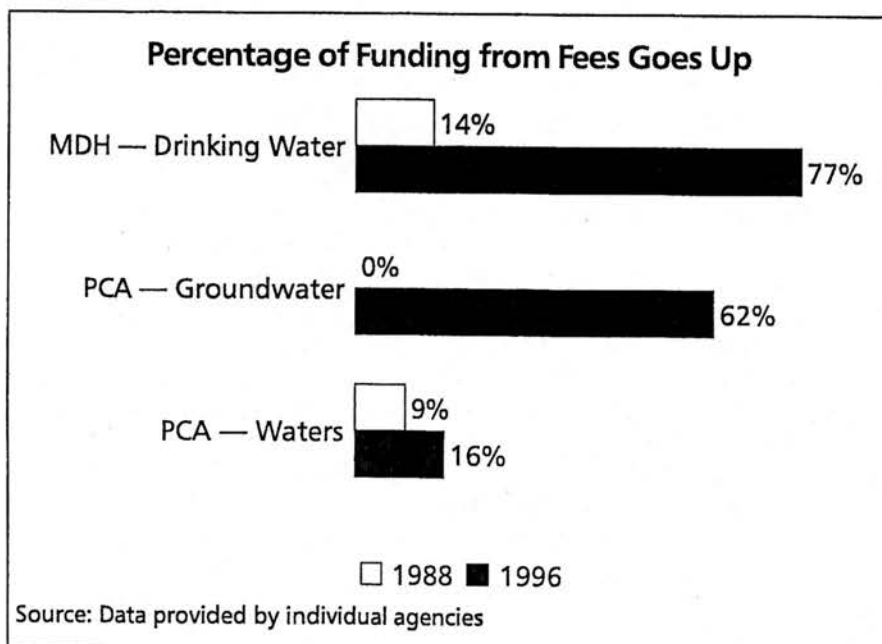
to interagency coordination, emerging issues and crises.

Fees and funding by program can lead to a fragmented water resources management effort. Fee payers expect that their money is buying a product or service, such as a permit, and balk at any expenditures not directly related to that product. Well drillers resist use of fees for training. People paying water appropriation fees want money to go directly to their needs, not the state's general fund. Few program funds allow staff for general or statewide policy development or allow managers to reassign staff as priorities change. Fees paid to the Petroleum Tank Release Cleanup fund can only be used for the narrow purposes defined in law, regardless of priorities. Basing programs solely on fees defines the fee-payer as the primary customer, ignoring the state's main water resource customer, the general public.

Funding techniques could become more of a problem as the state considers how to cover federal budget cuts. If cuts are covered by program-specific fees with tight spending restrictions, agencies' abilities to coordinate and cooperate with each other and with local governments and to orient efforts toward sustainable development will be further hampered. The state should seek ways to retain the positive side of fees while allowing flexibility to use funds on related activities and coordination efforts.

Statutes and Rules can be Difficult to Change

Statutes, rules and programs often are designed to benefit or respond to special interests, making them difficult to change. Competing



interests want to make sure that changes will not adversely affect them or their concerns. Studies, numerous legislative hearings and lengthy procedures often are required to change statutes and rules. This advocacy system ensures that all sides of issues are heard, but does impose resistance to change.

It took six years from the first study recommending merger of the Water Resources Board, the Soil and Water Conservation Board, and the Southern Minnesota Rivers Basin Board to creation of the Board of Water and Soil Resources — and this followed several studies in the preceding ten years recommending some degree of merger. The Waste Management Board, established in 1980 primarily for siting a hazardous waste facility in Minnesota, evolved into the Office of Environmental Assistance following several years of debate over whether it should be autonomous or merged with the Pollution Control Agency and a 1988 governor's executive order dissolving it. Change is particularly difficult when competing interests see their positions threatened.

Some inflexibility is tied to federal laws and regulations, since many state environmental laws and programs are tied to federal ones and federal dollars. Delegation of authority under the Clean Water Act, Safe Drinking Water Act, Federal Insecticide, Fungicide and Rodenticide Act, and other federal programs comes with mandates that can be overly prescriptive. The Clean Water Act, for example, requires that all National Pollutant Discharge Elimination System permits expire in five years, creating heavy workloads, backlogs and burdens on permittees. Many of these permits could be issued for

longer durations without negatively affecting the environment.

The time required for rule changes through the Administrative Procedures Act also inhibits change. Minor rule changes take at least six months and noncontroversial changes handled through an Administrative Law Judge take more than one month, even though the Attorney General's office has already reviewed the issue. A recent problem discovered with an air-testing provision of the plumbing code will require a long process to correct a small provision. While the Administrative Procedures Act does eliminate litigation and is better than the courts for resolving disputes, simpler processes could be developed for minor and noncontroversial changes.

Planning can be Unconnected Among Agencies and With Legislative Process

All agencies plan and many are currently involved in strategic planning and internal reorganization efforts, but these efforts are not guided by an overall set of goals or directions nor coordinated with each other. Planning often focuses on programs and how to make them better. Different programs and clients, and missions to serve them, can mean different messages to the public from agency to agency or division to division. Attempts at more far reaching plans tend to produce plans that are too general. While there are many examples of cooperative planning, including those mentioned in the Improvements section of *Crosscurrents*, too often these efforts lack follow through or commitment from affected agencies.

Many planning efforts are not coordinated among agencies. The Environmental Quality Board and its Water Resources Committee, intended as the forums for discussion of interagency issues, are not being used to make connections among planning efforts. The administration established environmental cluster has improved communication among agencies on programs and problems, as have informal monthly meetings of agency water managers. All agencies involved in water resource management reported internal strategic planning efforts and the Pollution Control Agency and the Department of Agriculture are involved in extensive reorganization. However, these efforts and their guiding principles are not systematically discussed among agencies nor are overall goals or connections developed. While the Department of Agriculture has administered a nationally recognized sustainable agriculture program since 1987, most agencies lack a clear understanding of sustainable development and how it applies to their programs.

The Environmental Quality Board's 1991 Minnesota Water Plan identified the principles, policies and actions needed for managing water in the 1990s and beyond; however, there has been no systematic effort to track progress or foster actions. Lack of implementation plans, multiple lines of responsibility and insufficient EQB staff to facilitate actions have all impeded progress. The plan, originally scheduled for update in 1995, will not be updated until 2000 and efforts toward that update have yet to begin. The EQB's 1992 Minnesota Water Monitoring Plan likewise had no systematic follow through and was

little used. Some elements of both plans have been implemented by individual agencies and a current interagency effort to develop a unified water resource monitoring funding proposal might indicate a trend toward greater connections among agencies. However, this latter effort is not being developed through any permanent coordinative body.

Legislatively required plans are seldom used in budget discussions or policy debates, discouraging agencies from devoting time or resources toward them. Agencies report that most legislators lack knowledge of plans and their content. The Legislature requires more than 18 specific water resource-related plans or reports. These are in addition to the biennial performance reports, which must contain goals, objectives and performance measures, biennial budget documents, which must contain agency missions and proposed activities, and reports and plans required by the federal government. Several of these plans and reports call for policy recommendations, status reports and needs assessments that could be of great value to budget and policy debates.

Most agencies lack sufficient resources for coordinated planning. Planning is usually added to the work efforts of current staff, leaving little time for internal, interdivisional coordination. Agencies and local units of government participate in coordinated planning to the extent that they are able within available resources. Maintaining core programs takes a higher priority.

Authorities Sometimes Unclear and Overlapping

Programs evolved as the state began to understand the connections among issues and environmental programs. Agricultural programs expanded to cover environment effects and mitigation as well as promotion. Pollution control went beyond the traditional industrial and municipal dischargers to concern with nonpoint source pollution and the actions that all people take. Safe drinking water could not be ensured without concern for programs of other agencies and actions of land and water resource users. All agencies became concerned with land use. Programs began to blend at the edges.

The Legislature recognized this blending, and the need for involvement of multiple interests in issues, by giving funding, programs and authorities to multiple agencies. Sometimes, however, this approach has led to confusion, mixed messages and potentially inefficient use of resources. For example, recent legislative changes give the Office of Environmental Assistance broad responsibilities for environmental education for pupils and other citizens, calling into question its role vis-a-vis other agencies and the Minnesota Extension Service.

Grants and loans for water-related projects are provided by more than eight entities. Nonpoint source pollution control efforts can be funded through the Board of Water and Soil Resources' cost-share and challenge grant programs, the Pollution Control Agency's Clean Water Partnership and 319 programs, the Department of Natural Resources' shore land grants, the Department of

Agriculture's grants and loans, the Metropolitan Council's nonpoint source grants and the Legislative Commission on Minnesota Resources, among others. Some of these programs were added by the Legislature recently. Currently more than \$11 million is available each year for water-related grants and more than \$15 million is available in loans, excluding grants and loans for wastewater treatment projects.

Criteria for some programs overlap and local governments apply to various programs for the same project in hopes of getting funding. Time frames for submitting applications often differ, as do requirements places on recipients. For example, some programs require adoption of ordinances to go along with cost-share funding, while others do not. Priorities are not consistently based on overall state needs or resource plans.

Overlapping authorities for wetland management have developed as programs to provide greater protection of dwindling wetland resources were implemented. Federal, state and local agency programs were authorized separately over time. Agencies have used memoranda of understanding, a joint permit notification form and multi-agency coordination meetings to address many of these jurisdictional overlaps.

The Legislature gave responsibility for developing best management practices for nonpoint source pollution to the Pollution Control Agency and the Department of Agriculture, with the latter covering agriculturally related practices. However, nonpoint source pollution control does not neatly fall into these categories. The Department of Agriculture is developing best

management practices for urban areas covering lawn care products, grass clippings and leaves, and the Department of Natural Resources develops forestry practices in conjunction with the PCA.

Even for issues where one agency has the lead, the Legislature might give funding to other agencies for related work. While the Pollution Control Agency regulates feedlots, the Legislature gave the Department of Agriculture funding for a feedlot model ordinance without requiring or providing resources for PCA involvement. Responding to concerns of producers over the PCA led remedial action and implementation plans for the Minnesota River, the Legislature gave money to the Department of Agriculture to facilitate producer involvement and reevaluate plans.

Memoranda of agreement and understanding are sometimes used by agencies to better define the edges. These memoranda allow flexibility in policy-making and form a cooperative rather than confrontational approach. However, memoranda are not developed in the same open manner as laws and rules. There is no input from citizens, legislators or non-participating agencies. There are no public or administrative announcements of these policies. Methods of enforcement are often unclear, as are methods of passing information about agreements to new staff. Most agencies maintain no overall listing or file of agreements.

Memoranda include agreements among the Department of Health, the Pollution Control Agency, and the Departments of Agriculture for wellhead protection, and between the PCA and the Department of Health for individual sewage

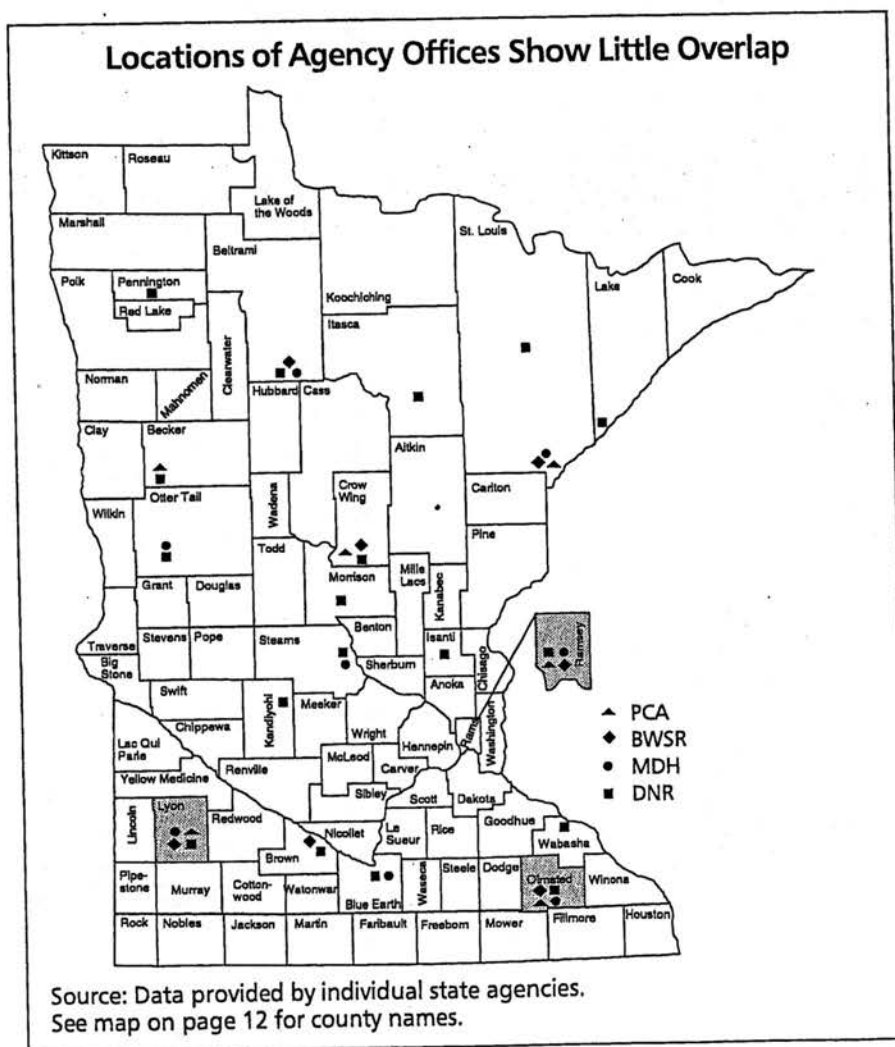
treatment systems and release of hazardous substances. Agreements between the PCA and the Department of Natural Resources cover investigation and enforcement of feedlot-related environmental violations, nonpoint source pollution control and ground water at contamination sites. Other agreements involve the Board of Water and Soil Resources, the Metropolitan Council and the U.S. Army Corps of Engineers.

Agencies have Different Regional Structures

Four water resource management agencies — the departments of Natural Resources and Health, the

Pollution Control Agency and the Board of Water and Soil Resources — have staff assigned to regional offices, but these offices are rarely in the same towns, let alone the same buildings. Only Rochester is home to regional offices of all four agencies. When DNR subregional or area offices are included, the number of communities with all four agencies increase by one to include Marshall. These separate regional offices make it difficult for agencies to coordinate activities and integrate permitting and other services for clients.

Regional structures were developed to meet the unique needs of programs and customers at a time



when connections among agencies' efforts were less recognized. The PCA and the Department of Health focused on their permittees, while the Board of Water and Soil Resources' customers were local governments and the DNR's were citizens and governments using the state's resources. Any connections deemed necessary were worked out in St. Paul. Now, as decision-making becomes more decentralized and local governments become significant players in many programs, the need for collocation is becoming more apparent. Agencies recognize that they must reach all citizens to deal with such issues as wellhead protection, nonpoint source pollution and sustainable development. And customers want the state's position and requirements on wetlands, feedlots or building a new manufacturing facility when they visit a state office, not just one agency's.

While the public has consistently requested "one-stop shopping" through the CORE report and elsewhere, very little action has taken place to collocate regional facilities. Neither the executive nor legislative branches has provided the leadership or resources for office mergers. When a University of Minnesota owned complex became available in Rochester that could have housed all of the agencies' regional staffs, for example, the state did not act to secure it.

Data and Communications Systems are Unconnected Among and Within Agencies

Telecommunications technology — e-mail, teleconferencing, remote computer access, the Internet — allows all offices and staff of an agency to operate as a single unit, no matter where they are located. They can access the same data, participate in joint conferences and meetings and confer on permit decisions just as if they were in the same office. These technologies also allow better coordination among agencies and allow the public to more seamlessly access information at any state office. Yet, most agencies and local governments lack the resources to take full advantage of telecommunications technology. In addition, different information coding systems make data hard to use.

World Wide Web sites, which offer an excellent way for the public and agency staff to get information, are underused. The Internet connects people to information without them physically traveling from one agency and location to another or even knowing they have dealt with multiple agencies. It can be a unifying tool to reach customers with integrated water resources or environmental information. While agencies are actively working to build home pages — Web sites providing access to the agency or "home" — there is little emphasis on coordinating or integrating sites or creating seamless access for customers to water resource information across agencies or programs. An interagency request to the Legislative Commission on Minnesota Resources to develop integrated joint Web sites was not funded; however, agencies continue to discuss the need. Some agencies have received funding to

develop sites, but for most funding is scarce.

While the Department of Agriculture's home page section on feedlots offers a good example of how information can be organized by issue instead of agency, local governments and others who know the Pollution Control Agency has primary responsibility for feedlots might not think to look to the department's page for information. Agencies have formed an interagency team to address Web site coordination and links.

Different data collection and management systems make access to and use of state information difficult. Water data collection efforts were designed to serve the needs of specific programs and clients, with little thought to how information might be used by or useful to other efforts. Data processing systems were funded through their respective programs, many of which were based on federal objectives and funds, for core program needs. Thus design and content are governed by program needs and funding sources. Broader purposes and the additional funds necessary to reach them are generally not considered.

Existing systems — both within and among agencies — are difficult to change. Efforts to develop and promote a common system for unique identification of wells, for example, began in the mid-1970s. Collaboration among state agencies over time led to a standard way to distinguish one well from another. This effort for well numbering avoided the situation which exists for streams where several approaches were developed independently. Two stream numbering systems are still in use.

The Legislative Commission on Minnesota Resources requires data compatibility for all projects receiving its funds, but these standards are not consistently enforced. Systems funded from other sources may have been required to meet other standards. State law now requires all systems to be compatible with the Land Management Information Center's standards. However, many older systems will need considerable investments to comply and standards have not yet been developed for all types of data.

Past and current efforts to coordinate and integrate information include the Ground Water Clearinghouse, the Integrated Ground Water Information System and the Pollution Control Agency's project DELTA. While early discussions in the 1980s called for having all data in one place, the different formats and varying quality-control procedures made this level of integration impossible. For example, data used for litigation is held to higher standards of quality control than that used for assessments and trends. The Ground Water Clearinghouse is currently being designed to take advantage of the Internet. Instead of housing data on one system, the clearinghouse will smoothly deliver data from multiple sites to the user's computer.

Even efforts to link systems within agencies are difficult. New systems, such as the PCA's project DELTA, designed to link all permit and enforcement data within the agency, are developed using the latest hardware and software, making ties with older systems difficult. These older systems must be reconstructed to be fully compatible with new ones. In

addition, both DELTA and other intra-agency tracking systems, such as the Department of Agriculture's ADAMS, were not designed for links to or uses by other agencies.

These discreet systems make access to and use of information about specific parts of the state difficult. Callers looking for information on the quality, supply and stressors of water resources in a given area must contact many programs in several agencies to determine what is available and how well it matches their needs. When the incidence of brain tumors in a Minnesota town came under question, the Department of Health, the Pollution Control Agency and the affected county had to hire a student worker to pull the necessary information together to assess the situation.

Many data systems are not automated. In 1993, when the Department of Natural Resources experimented with the idea of putting all available water-related data on a particular lake into a "lakeshore owner's report," they found that the lack of computerization of many records and the lack of standardization among governmental data systems made preparation impractical. The DNR was unable to provide this information to the public on a wider basis.

Decision-Making Still can be Cumbersome

Despite efforts of some agencies, many decisions still are made in central offices. The need for central office staff to come to meetings or visit project sites can cause delays, particularly in those parts of the state that are four or more hours from St. Paul.

Local governments report difficulties getting timely decisions from the state. Problems include conflicts between central and regional office positions, too many divisions and agencies involved and too much reliance on consensus as a decision-making tool. They report lack of clarity as to which agency or division within an agency has the final say on the decisions.

Sometimes the wrong people are at the table. Both in meetings with local units and committees of state agency staff, participants are at times not the people with authority nor are they given the authority to make decisions for their respective agencies.

Lack of Resources can Hamper Local Efforts

While many programs are best implemented at the level local, having the necessary resources can be a problem. Lower pay, lower benefits and lack of job security can make employee retention difficult. Some soil and water conservation districts report high turnover, as staff leave for the security and better pay and benefits of county employment once they are trained. Some local governments believe the support offered by the state for local water planning, feedlots, wetlands and other efforts is not sufficient for the tasks.

Some programs requiring local involvement demand highly experienced staff that can be difficult for all counties or districts to recruit, both due to costs and availability. One example is agricultural nutrient management, where experienced staff are not available for all counties or soil and water conservation districts. In addition, state agencies often lack

the resources to deal with the large number of local units. Joint efforts by the departments of Health and Agriculture, the Minnesota Extension Service and counties to test wells for nitrate levels can only reach 20 counties per year.

The state's community health services system solved some of these problems by combining into 50 Community Health Boards to serve the entire state. The system, created in 1976, combined hundreds of local boards of health under a shared mission statement between state and local public health agencies.

Lack of available technology also is a factor. Many local units of government lack the computers, modems, Internet connections and other resources to communicate efficiently and effectively with each other and the state. Even lengthy photo development services in more remote areas can increase the time it takes to get information to

decision-makers, a problem that could be cured with digital cameras and images sent by e-mail.

Special Purpose Districts are Difficult to Modify

Special purpose districts vary greatly in size, resources and level of effort. Some watershed districts have annual levies and aids in excess of \$500,000, while others have less than \$5,000 and some are inactive. Total annual revenues for many soil and water conservation districts are less than \$150,000, but some exceed \$500,000. In addition, soil and water conservation districts receive 50 percent of their revenues from counties, on average, and for some more than 70 percent. Most other district funding comes from the state.

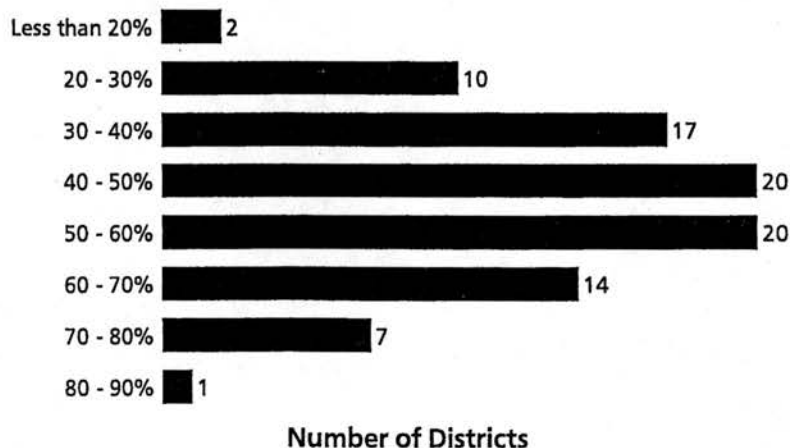
Districts are sharing staff and services with each other and counties to stretch resources, but future budget tightening and need

for specialists to deal with complex environmental issues might necessitate new governmental arrangements to get the job done. Possibilities include districts merging with neighboring districts and counties taking on functions of smaller districts. But the procedures for consolidating, terminating or changing the boundaries of soil and water conservation districts, watershed districts and watershed management organizations are cumbersome and there could be fiscal penalties.

The Board of Water and Soil Resources is charged with determining the feasibility of any proposals to consolidate or terminate soil and water conservation districts or watershed districts. It can divide and consolidate soil and water conservation districts without a hearing or referendum; however, the process for forming the divided or consolidated district board is as complicated as initial district establishment. Petitions and referenda are required for consolidations and terminations initiated by districts.

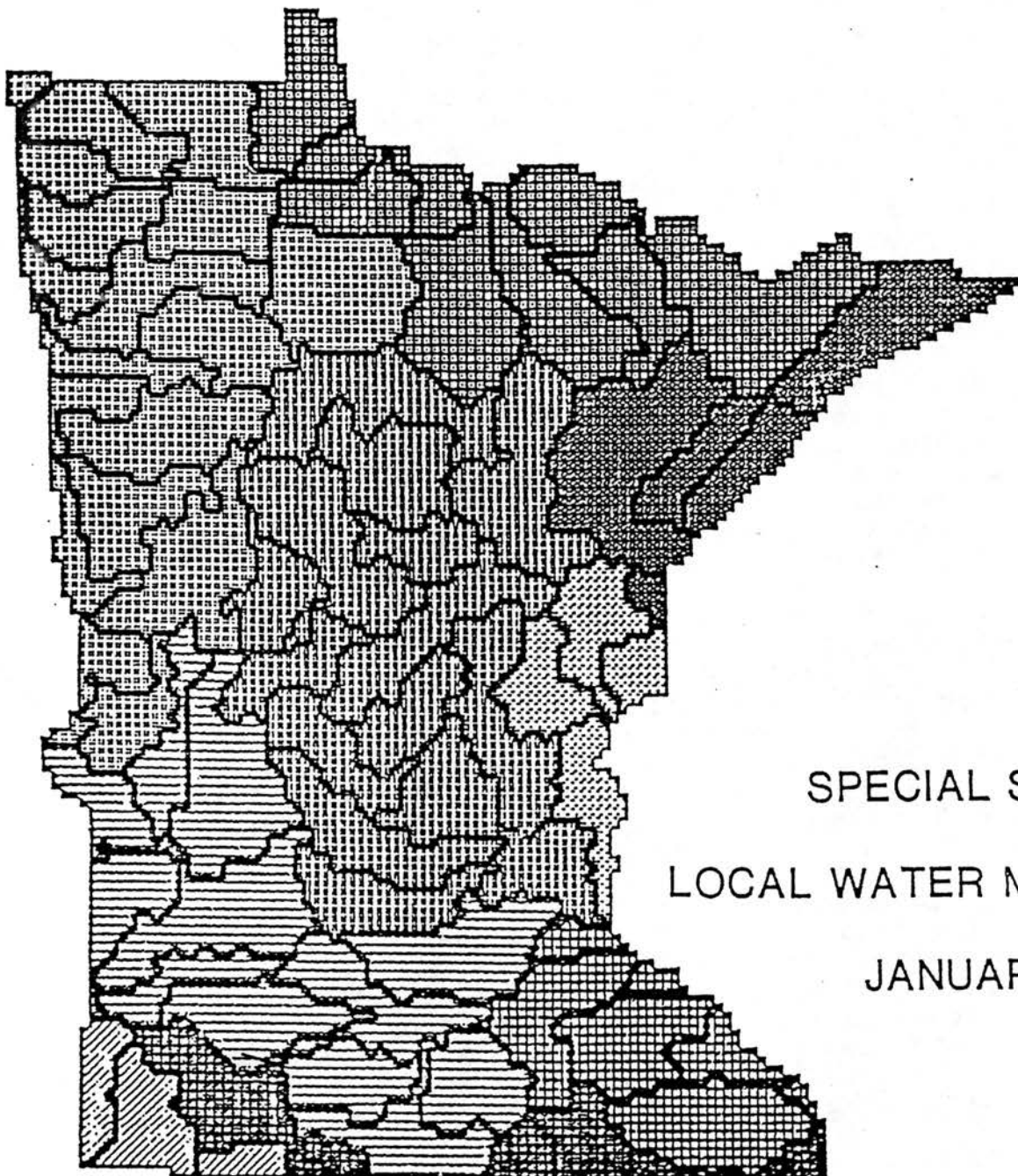
Soil and Water Conservation Districts Rely Heavily on County Funds

Percentage of Revenues — Fiscal Year 1995



Source: Board of Water and Soil Resources

Jim Birkholz
Toward Efficient Allocation
and Management:



SPECIAL STUDY ON
LOCAL WATER MANAGEMENT
JANUARY 1981

A REPORT OF THE MINNESOTA
WATER PLANNING BOARD
TO
THE LEGISLATIVE COMMISSION
ON MINNESOTA RESOURCES
AND
GOVERNOR ALBERT H. QUIE

THE RECOMMENDED COURSE OF ACTION

In response to the charge of the Legislature in Laws 1980, Chapter 548, the Water Planning Board recommends a course of action designed to improve and clarify relationships and authorities in local water management in Minnesota. The recommended course of action was developed by the Board from the alternative for "Redirection and Acceleration of Existing Arrangements" which is presented in Appendix A. The Board's recommendations seek to provide a well-defined, understandable framework of local relationships and authorities. The Board further believes its recommendations address an important theme of the 80's: that Minnesota must expand the capacity of its institutions to adapt to changing needs.

RECOMMENDATIONS

The Water Planning Board recommends that the Governor and the Legislature adopt nine basic positions with regard to the local role in water and related land resources management. These recommendations should be considered in light of and in concert with the state-level recommendations made by the Board in "Toward Efficient Allocation and Management: A Strategy to Preserve and Protect Water and Related Land Resources" (June 1979).

GENERAL PURPOSE GOVERNMENTS, PARTICULARLY COUNTIES, SHOULD BE THE FUNDAMENTAL DECISION-MAKERS AT THE LOCAL LEVEL.

The local water management structure should be directly tied to general purpose government. Water resource issues cannot be divorced from land management decisions. Since general purpose governments possess broad zoning powers in land use management, they should be given equivalent powers in water management if water and related land use solutions are to be fully integrated.

Counties should have the central responsibility in this structure, with cities remaining autonomous on problems originating and remaining within city limits. Township government should be subordinate to county authorities. Formal agreements should be established between counties and cities, soil and water conservation districts, and watershed districts (where they exist), detailing the primary roles and responsibilities to be carried out by each unit of government within the county.

A National Academy of Sciences report argues: "Although the drainage basin provides a coherent hydrologic unit relative to water control, it is not...usually, coincident with the appropriate social, political or economic region within which society functions. Water planning should relate more to man's activities, needs, desires, and ability to manage water than to water itself." This does not imply that watersheds should not be considered in the planning and management process, however. It principally states that the institutional structure does not have to be oriented to hydrologic boundaries.

The Water Planning Board's survey of nearly 500 local leaders and officials revealed that many view counties as the "best" unit of government to deal with many water and related land use problems. In questions about 14 management areas (e.g., flood plain management and appropriations permitting), counties were among the most frequent choices in 13 areas, and the first choice in six areas. The leadership of individual counties--such as Olmsted, Dakota, and Stearns--in water and related land resources management and of groups of counties--such as the 10 counties in Area II of the Minnesota River basin--demonstrate the many possibilities of focusing water and related land resources planning and management in general purpose governments. The Board's recommendation is further supported by a joint House-Senate study in 1971 which concluded that "...the wiser choice is to contain the proliferation of special purpose districts and to strengthen the roles of municipalities and counties."

The Board's local management survey suggests that where problems are likely to be confined with city boundaries (e.g., in stormwater management), local leaders support municipal autonomy. The district court decision in Spring Creek Township vs. Wild Rice Watershed District reveals the need to establish a clear hierarchy between watershed districts and townships (as well as other local units of government). To meet this need, the Board recommends that township authorities in water and related land resources management be subordinate to those of counties.

The Board recommends that formal agreements between counties and cities, soil and water conservation districts, and watershed districts (where they exist) be developed. Local leaders recognize the need for such agreements. In order to avoid problems which have resulted from overlapping authorities, the greatest support of local officials and leaders falls to developing "formal agreements between units of government with similar authorities..." For six of the eight survey respondent groups (e.g., county commissioners, mayors, and soil and water conservation district supervisors), this option was preferred above all others as a means of avoiding problems related to overlapping authorities.

The alternatives to the Board's recommended course of action require the formation of special purpose districts (e.g., watershed districts extended throughout the state, realigned soil and water conservation districts, or establishing a regionalized water management system). Surveys of local officials indicated less support for placing water management authority in a single, special purpose district at the local level than in improving coordination and communication among existing units. Further, as political scientist John Bollens has noted: "One serious argument against (special districts) is the inability of the public to exert adequate control over them...Citizens no longer keep themselves well informed on this aspect of governmental affairs."

COUNTY WATER PLANNING AND MANAGEMENT SHOULD BE
BASED ON HYDROLOGIC UNITS.

Since the watershed is the functional unit within which the effects of most land and water use decisions will be measured, a management plan whose focus and authorities are keyed to hydrologic boundaries is essential. In 1955, the Legislative Interim Commission on Water Conservation, Drainage, and Flood Control noted: "The behavior of water...is determined by the character of the watershed...It is often necessary to treat the watershed as an entity, for what happens...in any part of the watershed may affect the entire drainage basin." While the Interim Commission reached a different conclusion on the institutional means of recognizing this fact, the general observation is as important in 1981 as it was in 1955.

County water planning and management initiatives should be keyed to hydrologic boundaries consistent with the 1979 "State of Minnesota Watershed Boundaries" map. Frequently, the 81 major watershed units may prove appropriate for planning purposes, although smaller units may be appropriate in some areas and units defined by other than height-of-land criteria may be appropriate where ground-water concerns are paramount (e.g., southeastern Minnesota). County planning should consider, at a minimum, the effects of plan proposals on major watershed units. Where management initiatives are being implemented, smaller hydrologic units may be considered.

The concept of planning and management based on hydrologic considerations is both accepted by local leaders and successfully practiced in Minnesota. Sixty-eight percent of the respondents who expressed an opinion in the local water management survey indicated they believed that governmental units organized along hydrologic boundaries are in a better position to make water-related decisions than governmental units organized along political lines.

The Lower Red River Watershed Management Board (LRRWMB) provides a case example of a local authority basing planning and management efforts on hydrologic boundary considerations. The LRRWMB grew out of a recognition by citizen leaders that planning and construction to control floods along the Red River of the North and its tributaries must be looked at and solved on the basis of the regional hydrology. Minnesota's 35 watershed districts, the Bassett Creek Flood Control Commission, or the Elm Creek Conservation Commission might similarly be cited as examples of the acceptance of the hydrologic boundary principles.

GENERAL PURPOSE GOVERNMENTS SHOULD BE REQUIRED TO PROVIDE
FINANCIAL SUPPORT FOR WATER AND RELATED LAND RESOURCES
MANAGEMENT.

Increased local responsibility for water and related land resources management will bring with it increased local requirements for financial and technical support. Unfortunately, this increased local demand will arise during a period in which federal and/or

state financial and technical support could decrease. Although also facing a "fiscal crunch," general purpose governments are better choices to meet resource management needs than are new or expanded special purpose districts. A dedicated fund for water and related land resources management should be created in each county. The fund would both augment the resources of special purpose districts and provide matching dollars for the "Natural Resources Management Fund" proposed below.

Surveys of local officials point to financial assistance and staff support as the greatest needs at the local level. Six out of eight respondent groups ranked financial assistance as the greatest need to increase local involvement in planning and management. While both county commissioners and mayors were among the respondent groups citing the need for greater assistance, the Board holds that general purpose government provides the best mechanism at the local level for meeting these needs. The alternative at the local level, the special purpose district, too often (1) affords too little public control because it is less visible and/or incomprehensible to all but the most persistent citizens and (2) sometimes requires funding for its projects to be developed from such a small area that affected citizens are unduly burdened.

In fiscal year 1978, county expenditures for water and related land resources management varied widely. Anoka County spent less than \$18,000 (and zero on planning and zoning), while neighboring Sherburne County spent over \$84,000 (nearly \$64,000 on planning and zoning). Eleven counties spent no monies on planning and zoning activities, seven counties contributed nothing to soil and water conservation districts (although in total counties provided nearly \$825,000 to districts), and 24 counties expended less than \$50,000 on water-related activities. These disparities would be reduced by the dedicated fund requirement (and would be further mitigated by state assistance recommended below and in the framework plan).

SOIL AND WATER CONSERVATION DISTRICTS AND WATERSHED DISTRICTS PROVIDE AN IMPORTANT SERVICE IN ADDRESSING SOIL AND WATER MANAGEMENT NEEDS AND SHOULD CONTINUE TO EXIST. THEY SHOULD BE MORE DIRECTLY TIED TO GENERAL PURPOSE GOVERNMENT THROUGH COMPREHENSIVE PLAN CONSISTENCY AND APPROVAL AND THROUGH FORMAL AGREEMENTS AMONG THE GOVERNMENTAL UNITS.

The value of retaining these special districts is demonstrated by their past accomplishments. The regional representative of the National Association of Conservation Districts has told the State of Minnesota that when the Association "needed a state soil and water conservation program which could be used as a model for discussion and implementation in the other 49 states" that "...model came from Minnesota." The 35 watershed districts have developed approximately 80 project plans, completed P.L. 566 projects with total benefits of well over \$4.5 million, and have been instrumental in gaining approximately \$1.5 million in special legislative funding for flood damage reduction.

The Board recognizes the need for these programs to be more closely tied to general purpose government. Therefore, programs and policies of special purpose districts should be consistent with state-approved county comprehensive water and related land resources plans and subject to county approval. The programs and policies of watershed districts which transcend county lines should be consistent with the approved comprehensive plans of each county which they intersect.

To facilitate this activity, counties should be given the necessary range of authorities available to the watershed districts under Minnesota Statutes, Chapter 112. This may make single-county watershed districts unnecessary in the future, although the option of the county to create a "subordinate service area" with the same functions as a watershed district should be available. Counties should also be given the authority to petition the Water Resources Board for termination of watershed districts entirely within their boundaries pursuant to Minnesota Statutes, Section 112.411. When such a petition is filed, the Water Resources Board should consider the county's intent to accomplish the purposes of the Minnesota Watershed Act under its own authorities and terminate the district if it finds that the county will accomplish these purposes.

The rationale for formal agreements was provided above. The agreements should detail the responsibilities of each unit of government (counties, soil and water conservation districts, and watershed districts) in the planning and decision-making process and provide for the delegation of management responsibilities.

Other states have established or are pursuing the linkage of special districts to counties. In Pennsylvania, county boards may organize special districts and appoint their leaders. Wisconsin is presently considering legislation which would make the county board responsible for creating a county land conservation committee (which would replace soil and water conservation districts). While not going as far as either of these states, the Board proposes to closely tie special purpose districts to the county and to create the flexibility to adapt to changing needs.

The alternative approaches considered by the Board provide less flexibility for meeting changing needs by mandating special districts across the state at either local (e.g., watershed district) or regional levels. Such an approach is less desirable to local leaders and officials than an approach based on increased communication and coordination through formal agreements. The Board's recommended approach focuses on general purpose government (particularly counties) stressing strong ties through formal agreements with special purpose districts. This approach is flexible in that it provides for a variety of actions by the county; simplifies the existing system by focusing water and related land resources activities on the county; and avoids accountability and administrative problems which could result from further diffusion of authorities to special purpose districts.

The recommended approach emphasizes formal agreements among local governmental units. The purpose of such agreements is to assure that local efforts in water and related land resources management are both coordinated and directed toward plan implementation. The value of tapping the expertise of special purpose government through agreements is demonstrated in several case studies. The Area II joint powers board illustrates a situation under which counties have banded together to address major flooding problems, relying extensively upon watershed and soil and water conservation district expertise. The Elm Creek Conservation Commission illustrates a successful agreement among cities and an urban township which uses the expertise of the Hennepin Soil and Water Conservation District to address flood plain management, wetlands protection, and other resource management issues. Similar relationships have developed in Rice and Wabasha Counties.

WHERE WATER RESOURCE PROBLEMS CROSS COUNTY BOUNDARIES,
THE OPTION OF FORMING WATERSHED DISTRICTS OR ENTERING
INTO JOINT POWERS AGREEMENTS SHOULD REMAIN OPEN.

Subject to the review and approval of the Water Resources Board, counties should continue to have the authority to petition for the creation of a multi-county watershed district. As a corollary, counties should have the authority to petition for the termination of a multi-county district if there is a unanimous agreement among the counties that they will use county authorities to accomplish the purposes of the Minnesota Watershed Act. The petition should be subject to the approval of the Water Resources Board, consistent with the procedures in Minnesota Statutes, Chapter 112.

Where resource problems transcend city boundaries, joint powers agreements should be employed, including the county as a partner. If solutions cannot be agreed to under the joint powers agreement, the county should be empowered to adopt a solution consistent with its approved plan.

Both joint powers arrangements and multi-county watershed districts have been successfully employed in Minnesota. The Bassett Creek Flood Control Commission and the Elm Creek Conservation Commission emphasize the possibilities of intra-county joint powers agreements to address stormwater and related land management problems. The Battle Creek case study, in particular, reveals the need for the flexibility to move from a joint powers arrangement to a watershed district if the former falters. The Area II joint powers board provides an example of how a joint powers arrangement can work to solve a multi-county resource management problem. Watershed districts in the Red River Valley (and the more basin-wide approach of the Lower Red River Watershed Management Board) demonstrate the importance of inter-county watershed districts.

COUNTIES SHOULD HAVE THE BASIC RESPONSIBILITIES AND
AUTHORITIES FOR DEVELOPING AND INSURING IMPLEMENTATION
OF COMPREHENSIVE WATER AND RELATED LAND RESOURCES PLANS.

Water and related land resources planning is the centerpiece around which awareness of resource management issues can be created. As Dr. Robert G. Smith has concluded in his writing on special

districts and local government: "It is increasingly apparent...that the planning process is really the key to democratic control... Elected officials, with their direct accountability to the electorate and their special talent for ascertaining the public will, should be the principal decision makers in the planning process."

A strong commitment of counties to develop comprehensive plans is essential if local government is to address water and related land resources problems systematically and in a comprehensive fashion. Ongoing planning is vital to guide management programs and to heighten citizen awareness of resource problems. It is a prerequisite to decentralization and delegation of appropriate state authorities.

A "comprehensive plan," as it is envisioned by the Board, should provide a reconnaissance-level evaluation of water and related land resources, designed to identify both immediate and longer-range needs and to guide solutions to problems extending 10 to 20 years into the future. (This type of plan can be contrasted with an implementation plan which includes specific investigations designed to formulate alternate solutions to an identified problem, analyze alternatives, and recommend a feasible solution.) The comprehensive plan should recognize the "total resource." It should evaluate the need for and effect of activities affecting surface waters, ground water, water surface use, and related land resources. It should develop explicit goals and objectives under which water-related programs and projects will be carried forward and identify the roles and responsibilities of the various governmental units in short and long-term solutions to identified problems and needs.

Comprehensive water and related land resources plans developed by the counties should be evolving, working documents serving as the basis for implementing solutions to problems by or within the county. Where the need for specific programs or projects is identified in the planning process, more detailed analysis may be necessary prior to implementation. For example, where the need for a structural solution to a flooding problem is identified in a comprehensive plan, further analysis (i.e., an implementation plan) may be necessary prior to construction. An implementation plan would necessarily involve the hydrologic, engineering, environmental, and economic analyses needed to devise a completed project which is consistent with the comprehensive water and related land resources plan of the county.

To facilitate plan implementation, the Board recommends that the authorities of Minnesota Statutes, Chapter 112 be brought together with the basic county authorities in Chapters 106 and 378 to give counties the powers of watershed districts and to require counties to operate under the same water management principles underlying the Watershed Act (Chapter 112).

Local governmental officials generally strongly support development of water and related land resources plans as an element of local comprehensive planning. Eighty-eight percent of county respondents to the Board's local water management survey indicated they believe that a water and related land resources plan element should be developed by their county. Counties firmly believe that planning will aid in improving coordination of local actions (83 percent), in influencing state decisions (83 percent), and citizen involvement

(90 percent). Eighty-two percent of county respondents indicated they felt counties were the appropriate unit of government to carry out comprehensive local planning.

The major alternative to counties as principal planners--soil and water conservation districts and watershed districts--were approximately equal to counties in their support for local planning. Ninety-three percent of soil and water conservation districts and 85 percent of watershed districts expressed support.

Where joint powers agreements or inter-county watershed districts have been formed to address inter-county resource problems, counties should have the authority to delegate planning responsibilities to these units. The plans of these entities would become elements of the comprehensive plan of each affected county upon approval of the counties.

To fully link special purpose districts such as rural water systems, lake improvement and lake conservation districts, and drainage and conservancy districts (as well as solid waste management districts, as they are created) to the planning process, these districts should provide annual reports on their activities, accomplishments, and future directions to the county board (or boards) in which the district is located. Counties should consider the plans and operations of these districts in developing the county comprehensive plan.

INCENTIVES FOR LOCAL PLAN COMPLETION SHOULD BE PROVIDED, WITH PENALTIES IMPOSED FOR FAILURE TO COMPLETE THIS STEP. TO FACILITATE COMPLETION OF THE PLANNING PROCESS, THE PROPOSED NATURAL RESOURCES MANAGEMENT FUND SHOULD BE ESTABLISHED.

Counties with completed plans approved by the state coordinating body should be eligible for delegation of appropriate state permitting authorities. (Counties should have the authority to approve use of delegated authorities by other governmental units, consistent with the county plan.) Counties without approved plans (and governmental units within the county) would be ineligible to receive proposed flood damage reduction grants, land and water conservation funds, grants under the proposed natural resources management fund (other than for planning), cost-sharing for erosion control and water management, and Rural Clean Water Act funds. Similarly, counties without state-approved plans would not be allowed to exercise water project development authorities (e.g., under Minnesota Statutes, Chapters 106, 112, and 378, and Section 40.072).

To avoid a problem with an abrupt termination of funds, the incentives and penalties provisions would not come into play until three years after the effective date of the legislation. In the interim, the state coordinating body (i.e., the Water Planning Board or its successor) should be responsible for monitoring progress in the planning process and for reporting to the Legislature on progress made, including any recommendations for revision.

To facilitate completion of the planning process, the natural resources management fund proposed in the framework plan should be expanded to include planning assistance grants.

The local case studies conducted by the Board provided the pertinent lesson: either a problem must exist which is clearly recognized by local citizens or there must be a strong inducement (either positive or negative) to act. The City of Rochester is a case where such a severe problem has developed, local action followed. The financial incentives provided by the state in Area II and the Red River basin have speeded action to resolve flooding problems. The negative perception of state control led local citizens to initiate their own planning for the stretch of the Minnesota River proposed for inclusion in the Wild and Scenic Rivers system.

Further, if the state expects to derive a benefit from local planning, it should be willing to provide financial assistance to accomplish it. Such assistance should be provided through adoption of a "Natural Resources Management Fund," expanded to include planning assistance. Such a fund was recommended in the framework plan. As noted above, local units of government frequently see financial assistance as the greatest need for increasing local involvement in water planning and management.

REGIONAL COMMISSIONS MAY SERVE AS A PLANNING ADVISOR
AND SOURCE OF ASSISTANCE TO COUNTIES IN CARRYING OUT
PLANNING RESPONSIBILITIES.

The Regional Development Act of 1969 has as its purpose "...to facilitate intergovernmental cooperation and to insure the orderly and harmonious coordination of state...and local comprehensive planning and development programs for the solution of...problems of the state and its citizens by providing for the creation of regional development commissions." The 12 regional development commissions should continue to serve in their defined role, providing planning assistance to local units of government. They should review local plans and provide comments for consideration by the state coordinating body. These comments should be used by the coordinating body in its reports to the Legislature on the progress in comprehensive planning and in approval of county plans.

The Board's survey of local officials suggested a strong need for general planning technical assistance. Interest groups see this as the greatest need to increase involvement of local units of government in water and related land resources planning and management, while counties, towns, watershed districts, soil and water conservation districts, and other special purpose districts rank it second.

The Metropolitan Council should continue to function in its current role. That is, to the extent that regional concerns are involved, county and other local water management programs will be subject to Metropolitan Council approval.

AT THE STATE LEVEL, RESPONSIBILITY SHOULD EXIST FOR ESTABLISHING MANAGEMENT GUIDELINES, ASSURING THAT COUNTY PLANS AND MANAGEMENT ARE CONSISTENT WITH THESE GUIDELINES, AND FOR RESOLVING CONFLICTS.

The state should continue to function in its stewardship role. State agencies will maintain certain regulatory and planning responsibilities governing activities whose effects are significantly more than local (e.g., in permits for major mining activities or major power plants). State agencies should be responsible for establishing rules for delegation of those permitting authorities appropriately administered at the local level. Rules should also establish procedures for obtaining first-level review at the local level of state permits not delegated to the local level. State agencies should continue to carry out statewide planning and plan implementation where federal or state acts require such action (e.g., "208" water quality planning through the Pollution Control Agency and framework water planning through the state coordinating body).

While providing for local decision-making in appropriate areas, it is not practical to anticipate delegation of all state authorities. As one survey respondent put it: "Local government is simply not equipped to handle many of the pervasive water problems of the state." Surveys of local officials support this point. For example, the state is the clear first choice to carry out the Wild and Scenic Rivers program.

As recommended in the framework plan, a water resources coordinating body should be created. The state coordinating body (i.e., the Water Planning Board or its successor) should be charged with the establishment of a statewide planning process, including procedures for coordinating and integrating state regulatory policies and rules to maintain consistency among agency programs. The coordinating body should be charged with implementing the local planning process through development of planning guidelines, establishment of a process for assuring local plans are consistent with state goals and objectives, and delineation of a conflict resolution procedure. The coordinating body should be responsible for approval of local plans developed pursuant to the recommendations of this study.

Because of the central role afforded to counties, provision should be made for county representation on the coordinating body. Counties are not represented on the Water Planning Board at the present time.

Further, the state should be willing to provide both financial, technical, and planning assistance to local government. Financial assistance should be provided through the "Natural Resources Management Fund," as discussed above. State agencies, particularly the coordinating body, should provide the assistance of staff planners to local government in the planning process.

Taken as a whole, the case studies of local actions conducted by the Board suggest that the failure of the state to define its role and interests in water management has created problems in developing solutions at the local level (e.g., in Battle Creek, Area II, and the Red River Valley). This has forced local leaders to grope for solutions, with the cost of potential solutions climbing as leaders cast around for the proper vehicle to solve the problem. The cost of a solution to the Battle Creek flood and erosion control problem grew from \$1.2 million to about \$5.9 million as local leaders moved from the City of St. Paul's initial interest, to a joint powers agreement, to a watershed district over nine years. Through establishment of management guidelines and the coordinating body process, the Board believes that the state may be able to remedy many of these problems.

RATIONALE FOR ACCEPTING THIS COURSE

The course of action recommended by the Water Planning Board meets a fundamental requirement set out by Governor Quie in his statement of philosophy to guide the Administration:

"When government action is necessary, it should be taken by the level of government that is closest to the people and best suited to handle the responsibility."

Given the possible alternatives in water and related land resources planning and management--general purpose government, blanketing the state with watershed districts, expanding and realigning soil and water conservation districts, and creating regional water management authorities--the Board holds that general purpose governments, particularly counties, are the level of government closest to the people suited to handle the responsibilities which must be addressed. Analysis provided in the text above supports this conclusion.

Further the Board holds:

- ** The proposed system provides the flexibility necessary to adapt to changing needs. While authority is focused in counties, county authorities may be delegated through joint powers agreements, to watershed districts, or to soil and water conservation districts. The county itself may create new committees, utilize existing committees, or create "subordinate service areas." In sum, a degree of flexibility which is not provided in other options is provided for in the Board's recommended course of action. The Citizens League has recently concluded that "...strategically, the way to increase the ability...to induce change and adjustment...is to encourage a broad innovation in service-delivery, and to permit decisions then to emerge increasingly through the pattern of choices made by the people who are the users."

- ** The proposed system is a simplification of government. Responsibility is clearly focused in the county. Citizens would know which officials to press for action. While not necessarily a reduction in the number of units of government involved (e.g., which would have occurred if the option of realigning and strengthening soil and water conservation districts was selected), the order of action is clarified.
- ** The proposed system provides for the consideration of trade-offs between competing objectives through the planning process and, therefore, for the efficient use and protection of resources. By focusing responsibility in the county, the system should attain its objectives in a straightforward manner and at a minimum cost.
- ** The requirements that counties dedicate a portion of their tax levy to water and related land resources management, that the state establish a "Natural Resources Management Fund", that the state adopt a statewide flood damage reduction grant-in-aid program, and that the state expand the existing soil and water cost-sharing program will help to provide for financial and technical needs at the local level.
- ** The proposed system is accountable to the public. County commissioners are highly visible elected officials. The opportunity to "walk away" from ineffective or unresponsive institutions is provided through the flexibility to create entities to address a particular problem (e.g., a "subordinate service area") or to terminate a special purpose unit whose need has passed (e.g., an intra-county watershed district).
- ** The proposed system is more likely than the alternatives considered to be acceptable to the public. Local water management survey results appear to show an interest of local leaders in building on the basic elements of what now exists rather than adopting new systems.

The Legislature is the key to reform in the local water and related land resources system. It is responsible for an adequate local governmental system. The Legislature can employ a statewide look and understand the seriousness and total effects of the problems which exist. The Water Planning Board recommends the system outlined above to the Legislature. The challenge and the opportunity for action is the Legislature's.

IMPLEMENTING SPECIFIC FRAMEWORK PLAN RECOMMENDATIONS

While the nine basic points outlined and discussed above provide the basic framework for clarifying and improving relationships and authorities at the local level, under Laws 1980, Chapter 548, the Water Planning Board is charged with the duty to recommend a means of implementing framework plan recommendations at the local level. Under the Board's recommended course of action:

Cities should be responsible for carrying out mandatory stormwater planning and management within incorporated areas. Where stormwater management problems or solutions transcend the limits of a single city, the county (where a joint powers agreement cannot produce a solution) or an intercounty arrangement (e.g., watershed district of JPA) should be responsible for plan development and program implementation. The responsible government unit should be required to solicit and utilize the information and expertise available through the soil and water conservation district. Stormwater plans and programs developed within the seven-county metropolitan area should be included under the purview of the Metropolitan Council under the provisions of the Mandatory Land Planning Act.

Local leaders and officials supported this approach in the local water management survey conducted by the Board. Cities (24 percent) or a combination of authorities (33 percent) were preferred by over half of the respondents to the survey as the level of government to prepare stormwater management plans and programs.

Local units of government should be eligible to receive flood damage reduction grants-in-aid, provided their programs are consistent with comprehensive water management plans. The county should be responsible for development of flood plain management plans as an element of comprehensive plans (a responsibility which may be delegated by formal agreement) and be eligible to receive flood damage grant-in-aid funds. City plans and programs which cross city lines must be consistent with county programs and plans. Receipt of grants-in-aid by soil and water conservation districts, watershed districts, or other special purpose districts within a county should be subject to county approval regarding consistency with the county comprehensive plan.

This recommendation is consistent with the recommendations of the framework plan which provided for "incentives to local units to implement flood plain management measures." However, it changes the focus at the local level from watershed districts to counties. The recommendation is consistent with the findings of the local survey which revealed local officials believe that counties (28 percent), a combination of authorities (24 percent), soil and water conservation districts (16 percent), and watershed districts (10 percent) are the best units of government to receive and expend these funds.

Soil and water conservation districts should implement the expanded state soil and water cost-share program. The SWCD plan for soil and water conservation should be subject to approval by the county for consistency with the county comprehensive water and related land resources plan. Upon approval, the soil and water conservation program should become an integral part of the comprehensive local program, and land treatment and other measures installed under this program must be targeted to complement other phases of the total water and related land resources management program.

Soil and water conservation districts are in place and have been administering the state cost-share program since F.Y. 1978. Eighty-five percent of county respondents with an opinion believe that there is adequate coordination between counties and districts. Ninety-six percent of districts view their relationships with counties as between "good" and "excellent".

Counties and cities should be responsible for adoption and enforcement of ordinances for control of construction-site erosion. Where coordination is required between a county and a city, the county should serve as the lead agency and should have the authority to approve city programs which transcend city limits. The soil and water conservation district should provide technical review of construction-site erosion control plans and permits for use by the city or county, based on a formal agreement with the county.

The framework plan approved by the Board in June 1979 further defines this recommendation, proposing "mandatory statewide adoption through county and municipal ordinances of construction erosion controls, under state guidelines including model ordinances."

Counties (26 percent) and a combination of authorities (25 percent) were the top choices of local officials to administer construction-site erosion controls. Twenty-three percent of the local survey respondents indicated they believed soil and water conservation districts were the best unit of government to administer construction site erosion controls, suggesting the districts should have a strong voice in county and city actions:

LOCAL WATER MANAGEMENT PLANNING

Local water management planning is the principal component of the Board's recommended course of action. It can be described in terms of the structure of the process; the scope and content of plans; authority under approved plans; and implementation elements. The proposed local water management planning system is described in detail in this section.

Structure of the process. The county should be responsible for development of local comprehensive water and related land resources plans. These plans must be consistent with guidelines developed by the state coordinating body (i.e., the Water Planning Board or its successor). Where intercounty arrangements (e.g., watershed districts or joint powers agreements) have not been delegated planning responsibilities, counties should be required to demonstrate how upstream and downstream interests are taken into account. Counties should, by formal agreement, involve cities, soil and water conservation districts, watershed districts, and other entities in the planning process.

The planning authority of a county may be delegated to another unit (e.g., a watershed district or a soil and water conservation district), by formal agreement. Further, where counties determine it to be desirable or necessary in a major drainage basin to carry out planning and implementation of plan elements of the entire drainage basin, they may petition the state coordinating body to

establish a regional planning board. A majority of counties in the drainage basin should be required to initiate such a petition. In the seven-county metropolitan area, the counties should be authorized to use the Metropolitan Council as the planning entity.

Regional development commissions and the Metropolitan Council should provide planning assistance to local units of government in developing water and related land resources management plans. They should provide advice to the state coordinating body on measures to coordinate local plans and/or to adjust state plans to meet local needs.

The state coordinating body should determine whether local plans meet planning guideline requirements and are consistent with state goals and objectives in approving local plans. The coordinating body should consider the recommendations of other state agencies in approving local plans. Where the coordinating body has reason to believe there has been inadequate coordination of upstream and downstream interests, it should involve these interests as a condition to plan approval. The incentives (and penalties) recommended by the Board are designed to promote active participation in the planning process and to assure a coordinated local approach to water and related land resources programs.

Scope and content. Local water and related land resources plans should recognize the "total resource" involved. They should evaluate the need for and effect of activities affecting surface waters, water surface use, related land resources, and ground-water resources. They should anticipate short and long-term needs and demands and examine alternative solutions. They should develop explicit goals and policies under which all local water-related programs and projects will be carried forward and an implementation strategy for projects and programs. The essential nature of the local water and related land resources plan will be everchanging. Provisions should be made for their ongoing evaluation and update.

More specifically, comprehensive local water and related land resource management plans should address the items outlined below. These items are intended to provide general guidance on the elements to be included in a comprehensive plan, although the plan should not necessarily be limited to these considerations. The recommended items are:

- (1) An inventory of resources, including hydrologic, geologic, and geographic data; monitoring information; and available studies and analyses of the area.
- (2) An assessment of major water and related land use problems, needs, and concerns.
- (3) A set of clear and specific water management goals and objectives, including major emphasis on the delineated problem areas, needs, and concerns and on topical activities pertinent to the area.
- (4) A review and analysis of existing state and federal authorities, policies, and programs as they apply to the area involved.

- (5) A delineation of the roles, responsibilities, and commitments of actors in the planning effort.
- (6) A system for integrating and coordinating actions of local, regional, state, and federal agencies having authorities, programs, and interests in the area.
- (7) Proposals for state policy definition, clarification, or changes to provide for more efficient, coordinated actions.
- (8) A review and analysis of existing and potential funding to accomplish the development and implementation of the water planning process.
- (9) A range of alternative water management methods, techniques, programs, and projects which might be applied to problems, needs, concerns, and activities, based on analyses of environmental, economic, and social values and impacts related to the alternative.
- (10) A list of the most feasible, practical, and acceptable alternatives designed to provide for total resource management based on considerations of resource capabilities, value and impact assessments, public acceptability, and legal constraints.

Authority. Local water and related land resources plans should be approved by the state coordinating body. Upon approval, local units of government will be eligible for state financial and technical assistance for carrying out programs and projects consistent with the approved plan (e.g., flood damage reduction grants-in-aid, cost-sharing for erosion control and water management, grants under the proposed natural resources management fund, and land and water conservation funds). Approval of local plans should be a prerequisite for exercise of water project development authorities (e.g., under Minnesota Statutes, Chapters 106, 112, and 378, and Section 40.072). Approval of local plans should also make counties or other local authorities eligible for delegation of appropriate state permitting authorities.

County approval should be required for water-related activities of cities where impacts extend beyond city boundaries and for activities of soil and water conservation districts, towns, and other special purpose districts wholly within county boundaries; and for inter-county watershed district activities.

Implementation. After passage of a "Comprehensive Local Water Management Act," counties should be free to determine their approach to local water management planning, consistent with state guidelines. They may carry forward planning through county commissions, or designate watershed or soil and water conservation districts as the planning body. To assure consideration of upstream and downstream interests, they may utilize joint powers arrangements or seek creation of intercounty watershed districts along the lines of watershed planning units defined by the Legislature. (The 81 major watershed units identified in the 1979 "State of Minnesota Watershed Boundaries" map may prove most appropriate, although smaller units may be

appropriate in some areas and units defined by other than height-of-land criteria may be appropriate where ground-water concerns are paramount.)

Planning procedures established by counties should include methods for involving citizens and affected local units of government in establishing local goals and policies, identifying water and related land resources problems, and coordinating local programs and approaches to solve problems.

A timetable for plan completion should be established by the Legislature. It is suggested that a three year timetable be employed, commencing with the effective date of the "Comprehensive Local Water Management Act" (see below). In the interim, no penalties (e.g., loss of state assistance) should be imposed, but the state coordinating body should be charged with monitoring local plan development and reporting to the Legislature on progress at the local level. To guide the monitoring process, major milestones should be established (e.g., development of inter-agency agreements within nine months; completion of inventories within 24 months; and draft plans for public review within 32 months). As an element of its monitoring and reporting process, the coordinating body should be authorized to recommend revisions in the planning process to the Legislature.

During the three year "phase-in" period, the delegation of appropriate state authorities to local governmental units under existing authorities (for example, as is being considered by the Department of Natural Resources in the case of administration of the public waters program by counties) should continue.

LEGISLATIVE ACTIONS REQUIRED

The course of action recommended by the Water Planning Board will require several actions by the Legislature. These include:

Passage of a "Comprehensive Local Water Management Act". The purpose of this Act should be to establish a set of principles under which comprehensive local water and related land resources plans would be developed and implemented. It should establish the structure of local planning process, the scope and content of plans, authorities under approved plans, and implementation elements, including requirements for citizen participation. This Act would designate counties as the units of government responsible for local water and related land resources planning and for implementation of plans (although county authorities could be delegated) and would require development of formal agreements with other units of government. Hennepin and Ramsey Counties, which are excluded generally from planning requirements, would be given water and related land resources planning responsibilities by the Act.

Amendment of Minnesota Statutes, Chapter 112. Chapter 112 would be amended to permit the Water Resources Board to modify petitions to establish watershed districts and to revise existing district boundaries such that districts are coextensive with the hydrologic units considered in local planning. Chapter 112 also should be amended to give counties authority to petition the Water Resources Board for both establishment and termination of watershed districts.

When a petition for termination is filed, the Water Resources Board should be required to consider the county's intent to accomplish the purposes of the Minnesota Watershed Act under its own authorities and to terminate the district if it finds the county will accomplish these purposes. Finally, Chapter 112 should be amended to require that programs and policies of watershed districts be consistent with approved comprehensive plans of each county which they intersect.

Amend county authorities. The authorities of Chapter 112 should be brought together with the basic county authorities in Chapter 106 and 378 to give counties the powers of watershed districts and to require counties to operate under the same water management principles underlying the Minnesota Watershed Act. County authorities for project development should also be amended to require prior approval of comprehensive plans by the state coordinating body before such authorities can be used. In addition, county authorities would be amended to require the dedication of a certain amount of their tax levy for local water planning and management purposes; authority added to allow counties to petition the Water Resources Board for creation or termination of watershed districts; and to allow formation of "subordinate service areas." As noted above, Ramsey and Hennepin County should be included under the planning and implementation responsibilities and authorities.

Creation of a "Natural Resources Management Fund" under Minnesota Statutes, Chapter 105. The Natural Resources Management Fund should provide for grants to counties to assist them in planning activities required under the "Comprehensive Local Water Management Act" and grants to eligible governments responsible for implementing state-mandated programs for water and related land use management.

Amendment of Minnesota Statutes, Chapter 104 to require urban stormwater planning and management by cities. Amendments should specify the authority of counties to approve city plans and programs which transcend city boundaries.

Amendment of Chapter 104 to provide for a statewide flood damage reduction grant-in-aid program. This legislation would define eligibility for grants-in-aid and clarify the relationships of cities, counties, and other local units of government. Flood damage reduction planning requirements would be carried out within the context of water management plans developed under the "Comprehensive Local Water Management Act".

Amendment of Minnesota Statutes, Chapter 40 to require approval of SWCD plans by counties. Amendments should specify that approval be based on state-approved local comprehensive water and related land resources plans and that such approval be a condition of district eligibility for receipt or administration of state cost-share funds and for exercise of project development powers under Section 40.072.

Amendment of Minnesota Statutes, Chapters 394 and 462 to require counties and cities to adopt construction-site erosion controls. Amendments should specify the authorities of counties to approve city plans and programs which transcend city boundaries. In addition, they should provide for review of permit applications by soil and water conservation districts.

Passage of permanent water resources coordinating body legislation. The creation of a permanent water resources coordinating body with adequate authority to carry out specific coordination and review functions was recommended in the framework plan ("Toward Efficient Allocation and Management: A Strategy to Preserve and Protect Water and Related Land Resources"). Four alternatives were suggested to the Legislature for "housing" this body. In addition to the recommendations of the framework plan, the coordinating body should include representation of county interests in its membership in order to fully recognize the expanded role of counties provided for in the Local Water Management Study recommendations.

A recent Citizens League report defines the central issue for the 1980's as "how we will go about acting on our problems and opportunities." The working-out of a positive, constructive solution will be a major challenge.

The Minnesota Water Planning Board believes it has a positive, constructive solution for local involvement in water and related land resources management. The Board sends this report and its recommendations to the Governor, the Legislature, and the public for consideration. It is intended to capture the attention and stimulate the debate which the Board believes the issue it addresses requires. And, it is intended to produce action.

EXECUTIVE SUMMARY

Toward Efficient Allocation and Management: A Strategy to Preserve and Protect Water and Related Land Resources

To prudently employ, protect, and preserve our water and related land resources, the state, its political subdivisions, and its people must work together to promote efficient allocation and effective management. This emphasis on a cooperative effort in these areas is at the heart of the "TEAM" plan prepared by the Minnesota Water Planning Board.

The thesis of the Board is that without intensified, coordinated dedication to careful allocation and management of the state's water and related land resources, pressures from an expanding society will lead to the depletion and degradation of the state's water supply to the detriment of the health and welfare of its citizens. The multitude of water and related land resource problems faced by the state are complex. Thus, any effort to provide solutions to these problems is necessarily a first step. No easy answer to the many and varied problems exists. However, it is the intent of the Water Planning Board that the information presented — much of it available for the first time — contribute to the decision-making process which ultimately will lead to successful resolution of the critical water management problems facing Minnesota.

1. THE FRAMEWORK PLAN PROCESS

Influenced by the 1976 drought and aware of the concern of the Legislative Commission on Minnesota Resources that natural resources decision-making be promoted within the framework of an explicit strategy, the Legislature created the Water Planning Board in 1977. Among other things, the Board was charged with directing the preparation of a Framework Water and Related Land Resources Plan for Minnesota and assuring public participation in the planning process. The planning effort was supported by funds provided by the Legislative Commission on Minnesota Resources.

On the basis of 19 major staff papers and public review of these papers, a first draft of a "Framework for a Water and Related Land Resources Strategy for Minnesota" was prepared in April 1979. The draft was distributed for public review and comment, including 14 public meetings held in cities throughout Minnesota. Public comments and criticism were used to revise and refine the draft of the Framework Plan, which was subsequently approved by the Water Planning Board on June 19, 1979. This draft — containing over 90 specific recommendations — is submitted to the Governor, the Legislature, and the citizens of Minnesota for action.

2. THE NEED FOR ACTION

Minnesota is not now in a state of water crisis. We should not mistake the 1976 drought for our normal situation. But the lessons of the drought must not be forgotten. The 1976 drought demonstrated that severe water supply problems can appear even in a "water-rich" state. The problems highlighted by the drought, along with continuing conflicting demands and pressures for enhancing

the environment and for improving economic well-being, will produce growing concern for the state's water and related land resources.

The responses to several major problems are likely to significantly affect the future of the state. Adequate management of our water and related land resources, including the development and use of critical information, is a long-standing problem. Pollution of streams, lakes, and ground water is likely to remain a concern for years to come. The provision of recreational opportunities in the face of an expanding population and a deteriorating energy picture is an ongoing need. Rural flooding in the Red River Basin and urban flooding in southeastern Minnesota create problems which are still unresolved. The wetlands-drainage controversy shows no signs of disappearing. The current method of allocating water resources in Minnesota may not be efficient in periods of crisis. Agricultural soil erosion, erosion and sedimentation from construction sites, irrigation growth, shoreland development, and rural water system construction raise land use questions. In addition, the lack of public awareness of water-related issues may be at the heart of many problems.

Minnesota is fortunate not to have to respond to these problems in an atmosphere of crisis. The future holds great potential for the state. On a regional basis, there do not appear to be severe ground-water shortages at this time or in the immediate future. While low streamflow is a problem in the western area of the state, surface waters are generally adequate in the populous areas which rely on them. However, the absence of an immediate crisis is not a reason to postpone action. Minnesota must act now to develop a strategy to set change in motion and, by so doing, avoid having to make hasty, perhaps reckless, changes in the future.

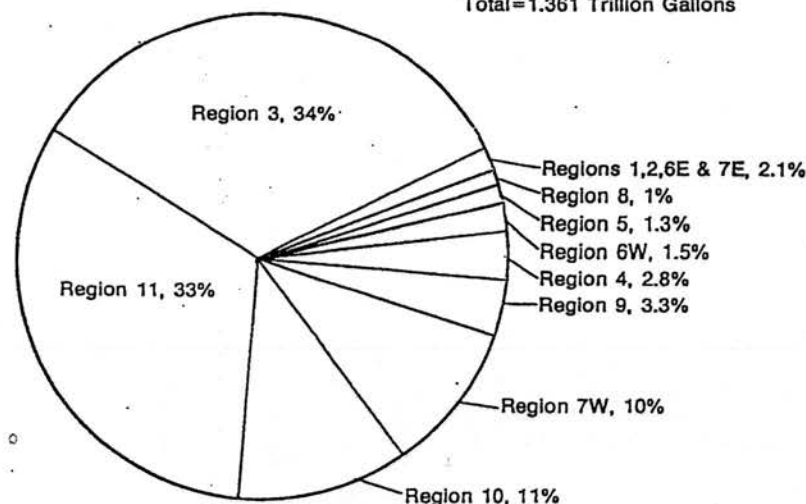
3. THE STATE OF WATER AND RELATED LAND RESOURCES

In 1976, water withdrawals in Minnesota (excluding hydropower) approached 1.4 trillion gallons per year — or roughly enough 32-gallon barrels of water to reach from the earth to the moon and back 52 times. The amount of water used in Minnesota in 1976 would also have been sufficient to cover the Twin Cities metropolitan area to a depth of 2.5 feet. Water was withdrawn for domestic consumption, municipal needs, industrial production, food processing, irrigation, livestock use, and electric power generation.

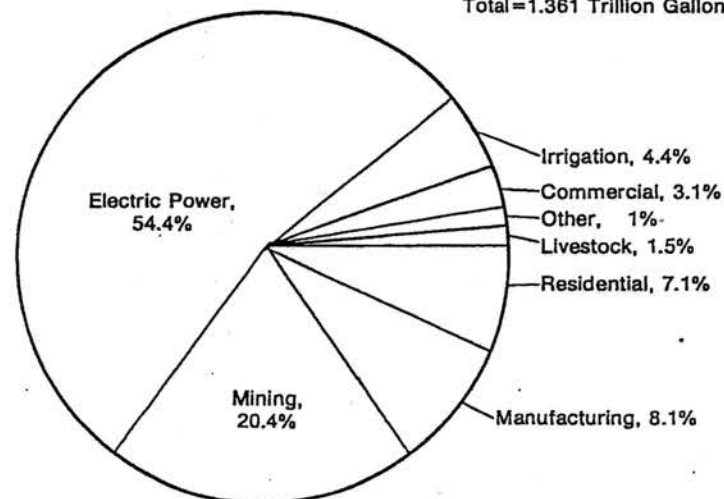
The electric utility industry was by far the largest water withdrawer in Minnesota, accounting for over 54 percent of total withdrawals. The bulk of this water was employed for power plant cooling. The mining industry accounted for about 20 percent of total withdrawals in 1976, with nearly all of these withdrawals concentrated in northeastern Minnesota. No other sector of the economy accounted for more than 10 percent of total withdrawals. (See Figures 1a. and 1b.)

FIGURE 1a

1976 Minnesota Withdrawal
by Region
Total=1.361 Trillion Gallons



1976 Minnesota Withdrawal
by Type of Use
Total=1.361 Trillion Gallons



Consumption — that part of the water withdrawn that is no longer available for other uses because it has been evaporated, incorporated into products and crops, consumed by man or livestock, or otherwise made unavailable — was estimated to be only about 13 percent of total withdrawals in 1976, or about 179 billion gallons. Agriculture and mining were the most substantial consumers of water, accounting for about 38 percent and 34 percent, respectively, of estimated state consumption. Agriculture leaps from a relatively minor withdrawer to a major consumptive use, largely because all water withdrawn for livestock use and 80 percent of the water withdrawn for irrigation are estimated to be consumed. Electric power production accounts for only about 12 percent of the water consumed in Minnesota. (See Figures 2a. and 2b.)

Under "baseline" assumptions (i.e., an extrapolation of current trends), it is estimated that by 1990 total withdrawals could increase by over 15 percent and consumption by nearly 92 percent. If a "conservation scenario" is employed for 1990, withdrawals might be held to about a five percent increase over 1976 levels, although consumption is estimated to increase by about 85 percent. Two sectors — irrigation and electric power production — are principally responsible for the large increase in consumption relative to withdrawals. Irrigation, which is highly consumptive, is expected to be the most rapidly increasing sector in terms of water use. Electric power production withdrawals are expected to decline due to changes in cooling technology, while related consumptive use will increase markedly. The decline in withdrawals for electric power generation masks increases in withdrawals occurring in other sectors.

In addition to the uses of water that are partially or totally consumptive of the resource, there are many significant nonconsumptive uses of water. These include hydroelectric power generation, navigation, recreation, fish and wildlife habitat, and waste assimilation.

Fortunately, to support its substantial withdrawals, Minnesota has abundant supplies of surface and ground water. It is estimated that in an average year over 11.3 trillion gallons of water are available in the state from surface supplies. This includes an estimated 3.1 trillion gallons in the Rainy River basin; 2.6 trillion gallons in the Lower Mississippi River basin; and 2.0 trillion gallons in the Upper Mississippi River basin (see Table 1). Using conservative assumptions which incorporate only surficial and bedrock aquifers discharging water into streams, it is estimated that ground-water availability equals some 1.1 to 2.0 trillion gallons in Minnesota. These estimates include 500 to 800 billion gallons of available ground water in the Upper Mississippi River basin; 175 to 300 billion gallons in the Lower Mississippi River basin; and 130 to 280 billion gallons in the Minnesota River basin (see Table 1).

Despite this generally positive picture of demand and supply, there are very significant cautions. Water resources are not evenly distributed across the state. As a result, localized shortages occur or have the potential to occur where users are concentrated, where withdrawers are too near the headwaters of a sub-basin, or where a potential user is simply not located near a readily obtainable ground- or surface-water supply. In some cases, water supplies may be unable to sustain flows or pumping at desired rates. Finally, major natural occurrences — such as the drought of 1976 — cannot be accurately predicted and have demonstrated the capacity to create tremendous problems even in a generally "water-rich" state.

While the preceding discussion of the state of water resources has focused on water supply and demand, the only concerns of the state do not rest with water quantity issues. Water quality is of critical importance. Flooding will continue to occur. Land use decisions will affect both water supplies and quality.

Because clean water resources are an important tourist attraction, provide a principal recreational resource for citizens of Minnesota, and serve as the essential source of supply for domestic and industrial use, considerable concern must be focused on water quality issues. These issues are being addressed in detail by the Minnesota Pollution Control Agency and the Metropolitan Council. When complete, the results of their studies will become the water quality elements of the state water resources strategy.

The economic losses due to flooding in Minnesota are conservatively estimated at \$54 million (1978 dollars) annually. About 35 percent of the losses are estimated to occur in the Minnesota River basin and about 30 percent in the Red River basin. Flood damage reduction programs have traditionally fallen within the purview of the federal government, but require additional state emphasis.

Finally, land use decisions affect water supply, demand, and quality and must be viewed within such a framework. Irrigation, flood plain management, designation of wild and scenic rivers and critical areas, shoreland development, mining, industrial development, and the introduction of rural water supply systems are among the major land use decisions in which water is a factor. The use of the land and the protection provided to it affect water quality and supply.

4. FOUR REQUIREMENTS FOR THE FUTURE

While Minnesota faces a wide array of water and related land resources problems, it also has great potential. The Water Planning Board believes four requirements must be met if Minnesota is to achieve its potential. The requirements are:

- ** A stronger focus on effective management — a cornerstone of Minnesota policy in the past, but even more important in the future.
- ** Greater emphasis on the efficient allocation and use of water resources and rejection of the concept of water as a limitless, free good.
- ** Improved collection and dissemination of information for use in making critical water and related land resources decisions.
- ** Planning, research, and decision-making that deals with the interdependence of issues and places increased emphasis on the state as a unit.

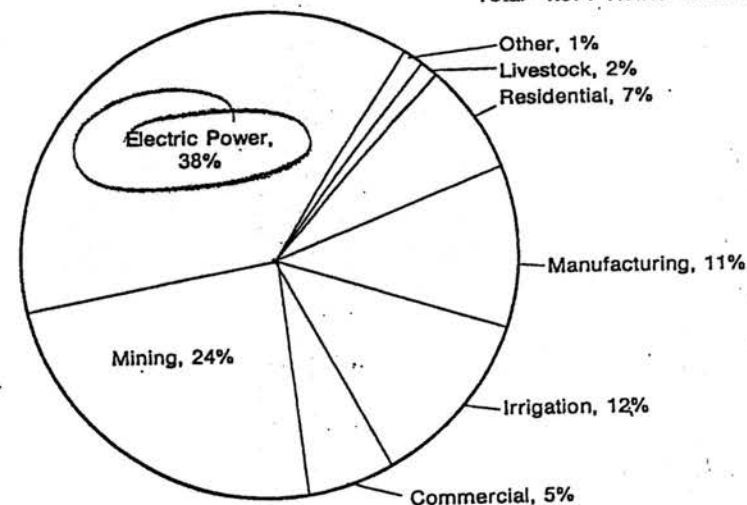
The four central requirements for securing the state's resources future must be met if Minnesota is to move toward efficient allocation and management of its water and related land resources.

5. STRONG FOCUS ON EFFECTIVE MANAGEMENT

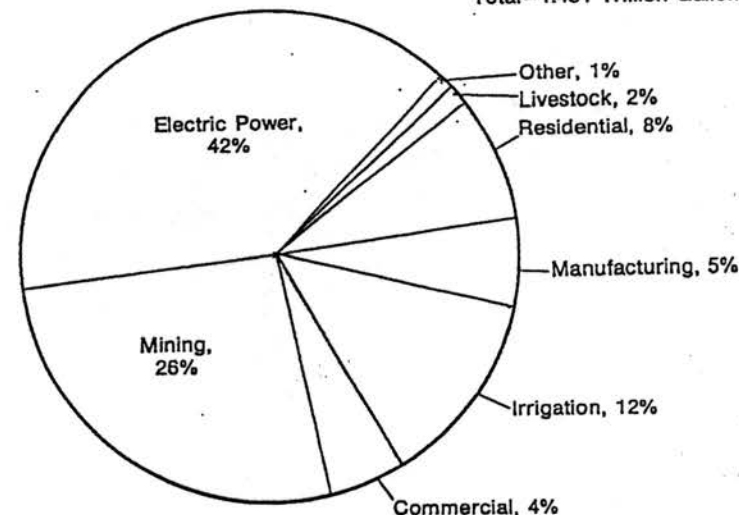
Five levels of government — the federal, interstate, state, regional, and local — are currently involved in decision-making affecting water and land related resources in Minnesota. The existing institutions have not always worked together effectively or functioned efficiently internally. A fragmented, often disorganized approach to water management has evolved which fails to recognize or deal effectively with the interdependence of water problems and management solutions.

FIGURE 1b

1990 Minnesota Withdrawal
Baseline Assumption
Total=1.571 Trillion Gallons



1990 Minnesota Withdrawal
Conservation Assumption
Total=1.431 Trillion Gallons



At the state level, the Water Planning Board has identified 16 state agencies and boards which administer more than 80 water-related programs. The execution of these programs requires the coordination and exchange of vast amounts of information among various decision-makers in order to achieve program goals.

The Departments of Natural Resources and Health and the Pollution Control Agency are the major water management agencies in the state. Of the 63 programs reported on by the Board, these three agencies were responsible for 46, or nearly 75 percent. In contrast, the Minnesota Historical Society and the Iron Range Resources and Rehabilitation Board have only tangential program responsibility. (Table 2 lists the 11 other agencies and boards.)

Federal responsibilities in water and related land resources management, planning, and development in Minnesota are divided among eight executive departments, five independent agencies, several units in the Executive Office of the President, and a number of other boards, committees, councils, and commissions. There are at least seven interstate bodies directly involved with water resources in Minnesota; five intrastate and regional entities; and 14 local units of government (See Table 2.)

Minnesota's major water management programs can be grouped into five topical areas: (1) water resources planning and environmental review; (2) water quality management; (3) water quantity management; (4) related land resources management; and (5) wildlife and recreation management. Analysis of state programs in these five areas revealed 152 specific problems encountered in the operation of programs which prohibit the effective realization of program goals. Some of these problems are very real; some could arise in theory, but have not been a hindrance to date; and some are admittedly of less significance. Of the 152 problem areas, 34 were judged to be highly relevant for further analysis, 64 were judged to be of medium relevance, and 54 were determined to be low of importance from an institutional perspective.

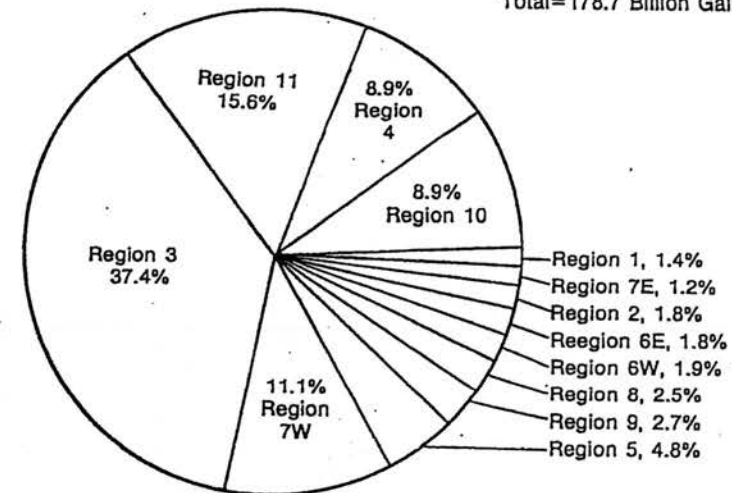
To deal with the deficiencies in the existing system, the Water Planning Board proposes a strategy that will strengthen the ability of Minnesotans to determine how they choose to manage their water and related land resources. The Board proposes that:

- ** The state serve as the steward of Minnesota's water and related land resources, providing policy guidance and incentives for local and regional action;
- ** Regional entities focus on integrating local interests with a comprehensive view, providing coordination among levels of government, and affording assistance to local bodies; and
- ** Local governments initiate local management plans and implement solutions to identified problems, consistent with state policy guidelines.

This hierarchy requires continuous three-way interaction between the state, regional bodies, and local units of government; efforts to refine and improve authorities and to clarify relationships at each level; and better mechanisms to achieve communication among all parties.

FIGURE 2a

1976 Minnesota Consumption
by Region
Total=178.7 Billion Gallons



1976 Minnesota Consumption
by Type of Use
Total=178.7 Billion Gallons

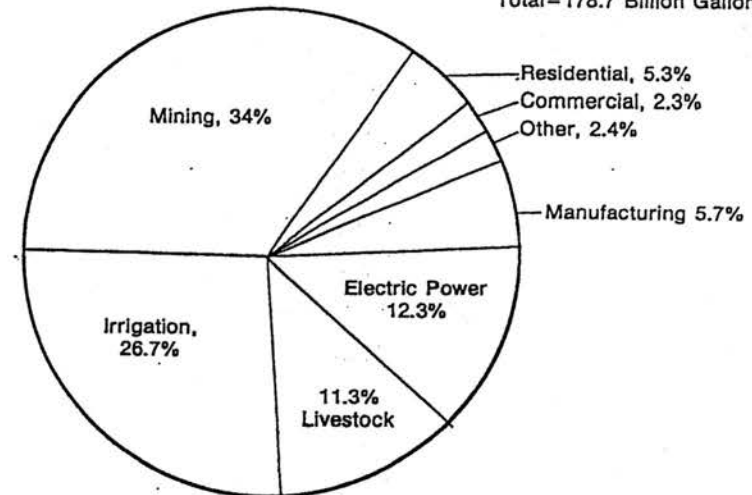
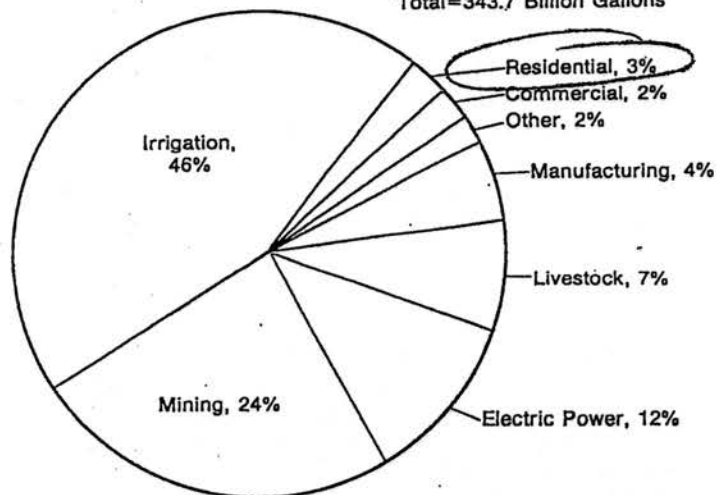
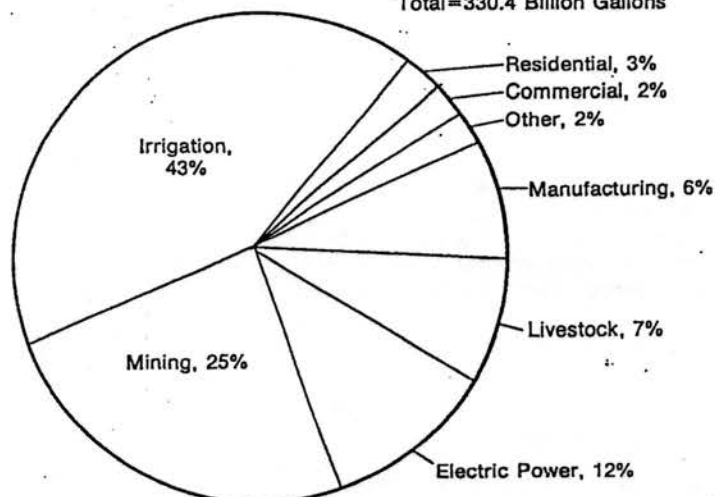


FIGURE 2b

1990 Minnesota Consumption
Baseline Assumption
Total=343.7 Billion Gallons



1990 Minnesota Consumption
Conservation Assumption
Total=330.4 Billion Gallons



The fundamental requirement of the Board's strategy is an ongoing process for making water policy and water management decisions in Minnesota. In order to function fully, the process must be centered on one organization at each level of government. This organization must be capable of identifying and coordinating often competing and conflicting views. It must be capable of expressing and addressing the needs for effective water management at its particular level of government. In the Board's opinion:

- ** A water resources coordinating body is necessary to provide a focal point for the process at the state level;
- ** The regional development commissions should be utilized to provide the important link in the process between state policy and local plans (with assistance in the regional role from *ad hoc* river basin boards or joint powers arrangements in special situations); and
- ** Watershed districts, where they exist, and general purpose governments (e.g., counties and municipalities), where watershed districts do not exist, should be the focal point for the development of local water management plans.

In the development of local management plans, soil and water conservation districts must play a major role and become responsible for the soil and water conservation elements of such plans.

To implement this management strategy, the Water Planning Board recommends:

1. **Establishment of a water resources coordinating body with adequate authority to carry out coordinating functions.** This body is essential to insure comprehensive policy development which includes the views of state, local, regional, and public interests; to deal with the range of activities which cut across agency interests, levels of government, and political boundaries; to resolve interagency conflicts; to integrate plans of local and regional agencies with state strategies; to initiate and coordinate comprehensive water resources planning; to advise the Legislature on the compatibility of agency budgetary requests with the state's overall policy and strategy; to facilitate the receipt and effective utilization of federal funds; and to insure citizen involvement in water resources policy-making. The Legislature should select the type of organization it desires to carry out the coordinating functions from among major options such as the Department of Natural Resources, the Environmental Quality Board, a board modeled after the Water Planning Board (perhaps with alterations in its make-up), and a citizens board.

2. **Initiation of program planning and evaluation functions within each water management agency.** These functions would provide the essential link between agency strategy, the state water resources strategy, and the budgetary process. The full implementation of this recommendation would lead to the development of programs which are understandable in their operation and effects, which have the effects intended, and which are subject to policy and fiscal control.

3. **Implementation of a binding process for interagency conflict resolution carried out by the state coordinating body.** The coordinating body would be authorized to resolve water policy conflicts involving two or more state agencies where these agencies are unable to reach a mutually acceptable course of action in a timely fashion. This function could be clearly distinguished from the environmental conflict resolution process of the Environmental Quality Board and would replace similar functions now held by the Water Resources Board. Resolution of private-state conflicts would continue to be handled through the Office of Hearing Examiners and the courts.

The Water Planning Board believes that the three preceding recommendations, working in concert, negate the need for a major reorganization of state water management agencies into either a Department of Waters or a natural resources "super" agency. By redirecting and refining existing structures, the Board believes the state can avoid the costs (capital, administrative, and human) of a major reorganization and still effectively manage its resources. The water resources coordinating body need not constitute a major investment, probably requiring about one percent of the state's water and related land use program budget annually. However, it is recommended that within five years of the initiation of the preceding recommendations, the state coordinating body reevaluate the Board's decision.

4. **Increased emphasis on the initiation of water management plans and projects at the local level, consistent with state policy guidelines.** Development of water management plans is an effective way for local government to (1) address water management problems systematically and comprehensively, (2) provide a focus for citizen involvement and participation in the solution of water resources problems, (3) speed state approval of permits that might be required in implementing the plan by having prior acceptance of local directions at the state and regional level, and (4) facilitate the administration of state permit programs at the local level, when feasible.

5. **Adoption of a natural resources management fund targeted at assisting local water management authorities in implementing state-mandated programs.** Administered through the State Planning Agency, this fund would provide money for implementation of state-mandated programs at the local level. Local water management authorities would be required to develop program plans for review by a committee made up of natural resources management agencies in order to demonstrate need and feasibility of approaches.

6. **Detailed examination of the feasibility of consolidating functions of the Soil and Water Conservation Board, the Water Resources Board, and the oversight of lake improvement district formation by the Department of Natural Resources.** The staff of the Water Planning Board, in consultation with the SWCB, the WRB, and the DNR, will conduct this examination. Staff findings are to be presented to the Board by March 1, 1980. The staff analysis will include specific proposals for legislative action if consolidation is found to be feasible and desirable. The Water Planning Board will evaluate study results and make any appropriate recommendations to the Governor and the Legislature. The staff study should be carried out with recognition of the need for clarifying functions and changing authorities at the local level of water management.

7. **Development of a statewide flood damage reduction grant-in-aid program administered through the Department of Natural Resources and the Soil and Water Conservation Board.** The purpose of the grant-in-aid program would be to provide incentives to local units of government to implement flood damage reduction measures, both structural and non-structural. The Department of Natural Resources would be charged with determining initial eligibility of proposals through review and approval of comprehensive flood plain management plans. The DNR and the Soil and Water Conservation Board would establish by formal agreement procedures for coordinating administration of grants for structural measures (by the SWCB) and grants for non-structural measures (by the DNR).

8. **Execution of three water management functions at the regional level — provision of a forum for citizen participation, regional coordination with comprehensive planning efforts, and implementation of regionwide projects where necessitated by hydrologic conditions.** Regional development commissions would be charged with providing the forum for citizen participation and with the responsibility for coordination. River basin boards, similar to the present Southern Minnesota Rivers Basin Board, should be formed on an ad hoc basis as major river basin studies are developed.

6. GREATER EMPHASIS ON EFFICIENT ALLOCATION AND USE

Traditionally, water planning for the future has been concerned chiefly with the problem of acquiring and developing additional supplies. Assuring efficient use of available supplies has only recently come to the fore.

While Minnesota is a "water-rich" state, it experiences many of the same water-related problems occurring nationwide. These problems appear in localized shortages. Three factors contribute to localized water shortages. First, expanding population pressure increases the demand for water from municipal and domestic supplies. High density population also increases water use and demand for goods requiring water for manufacturing and processing. Second, advancing technology and a rising standard of living increase water demand and encourage new uses in agriculture, industry, municipalities, and homes. Finally, natural precipitation remains unpredictable.

The State of Minnesota has attempted to promote efficient and beneficial use of its water resources by applying precedent and enacting legislation. The basic Common Law Riparian Doctrine has been modified to what is known as the American Reasonable Use Doctrine of Riparian Rights. Under this doctrine, each riparian land holder has a privilege to make reasonable beneficial use of available water. Minnesota law establishes a priority system for granting water appropriation permits.

The Department of Natural Resources has been charged since 1947 with the responsibility to "develop a general water resources conservation program for the state." As recently as 1977, the Legislature enacted legislation to provide for more efficient use of water through water conservation approaches.

The intent of state law has been to preserve water supplies for the future; to protect the quality of existing supplies; and to postpone development of untapped supplies. The efficient use of water resources can reduce the need to construct new sewage treatment facilities and reduce the costs associated with

TABLE 1
ESTIMATED GROUND AND SURFACE
WATER AVAILABLE
(in billions of gallons)

MAJOR WATERSHED	GROUND WATER AVAILABLE	SURFACE WATER AVAILABLE		
		Average for Period of Record	1976 Drought	Inflow to Basin
Upper Mississippi River	500-800	2,035	1,285	0.
Lower Mississippi River	175-300	2,607 ¹	2,392 ¹	3,816
St. Croix River	85-175	1,330 ¹	1,146 ¹	0
Minnesota River	130-280	627	269	0
Lake Superior	55-110	698 ²	474 ³	0
Red River	77-165	768	673	0
Rainy River	35-85	3,137 ⁴	2,153 ⁴	0
Cedar River	25-50	44	23	0
Des Moines River	10-25	64	20	0
Missouri River	5-10	N.A.	N.A.	0
Total	1,097-2,000	11,310 ⁵	8,435 ⁵	3,816

1 Includes water from Wisconsin portion of watershed unit.

2 Estimates are low because of the number of ungaged tributaries flowing into Lake Superior

3 Lake Superior provides a massive source of water for users located near the lake

4 Includes water from the Canadian portion of the basin

5 Assumes Missouri River Basin is zero

energy demand. To further this intent and to improve on Minnesota's past efforts, the Water Planning Board recommends:

1. **Repeal of the existing priority system, replacing it with a more flexible system capable of meeting area needs in critical situations.** While the present priorities system has positive aspects, important problems exist. The present system does not necessarily promote efficient allocation; may in some cases be infeasible; and is not necessarily equitable. In place of the present system, a system consisting of three main priority classes should be established: (1) basic necessity uses, (2) environmental protection requirements, and (3) economic production. To fully define and refine the "basic necessity uses" and "environmental protection" classes, the coordinating body, in consultation with appropriate agencies, will quantify these classes prior to submission of legislation to repeal the existing system. Subject to these requirements and pending the development of local management plans, regional development commissions

may develop regional "economic" class priorities, which will be advisory to the DNR. Where an RDC elects not to establish regional priorities, the Commissioner of Natural Resources may establish priorities for the region.

2. **Adoption of explicit guidelines for settling well interference disputes.** Rules and guidelines for the settlement of well interference disputes should be based on three explicit responsibilities: (1) All appropriators of water shall be responsible for making a reasonable effort to obtain water in sufficient quantity and quality for their needs; (2) all appropriators shall be responsible for meeting the well code requirements of the Minnesota Department of Health; and (3) if further development of the aquifer causes interference with existing appropriators who are meeting their responsibilities, the new appropriator (or appropriators) shall be responsible for the costs of corrective measures, including any needed treatment facilities. The Department of Natural Resources will, by rule, define the concept of "a reasonable effort to obtain" an adequate supply of water.

TABLE 2.
LEVELS OF GOVERNMENT IN WATER MANAGEMENT

THE FEDERAL LEVEL			
A. Executive Agencies		B. Independent Agencies	
1. Department of Agriculture	5. Department of HEW	1. Environmental Protection Agency	
2. Department of Commerce	6. Department of HUD	2. Water Resources Council	
3. Department of Defense	7. Department of Interior	3. Interstate Commerce Commission	
4. Department of Energy	8. Department of Transportation	4. National Science Foundation	
C. Executive Office of the President		D. Other Boards, Committees, Councils, etc.	
THE INTERSTATE LEVEL		THE REGIONAL (INTRASTATE) LEVEL	
1. Upper Mississippi River Basin Commission		1. Regional Development Commissions	
2. Missouri River Basin Commission		2. Metropolitan Council	
3. Great Lakes Basin Commission		3. Southern Minnesota Rivers Basin Board	
4. Souris-Red-Rainy Regional Committee		4. Lower Red River Watershed Management Board	
5. Great Lakes Commission		5. Resource Conservation and Development Areas	
6. Minnesota-Wisconsin Boundary Area Comm.			
7. South Dakota-Minnesota Boundary Waters Comm.			
THE STATE LEVEL			
1. Department of Agriculture		9. Iron Range Resources and Rehabilitation Board	
2. Department of Economic Development <i>DEPD</i>		10. Minnesota Historical Society	
3. Department of Health		11. Pollution Control Agency	
4. Department of Natural Resources		12. Soil and Water Conservation Board	
5. Department of Transportation		13. State Planning Agency	
6. Division of Emergency Services (Department of Public Safety)		14. University of Minnesota	
7. Energy Agency		15. Water Planning Board	
8. Environmental Quality Board		16. Water Resources Board	
		<i>Wildlife Management Board</i>	
		<i>SMRBB</i>	
THE LOCAL LEVEL			
1. Counties		8. Lake conservation districts	
2. Municipalities		9. Lake improvement districts	
3. Townships		10. Water authorities	
4. Watershed districts		11. Sanitary districts	
5. Soil and water conservation districts		12. Sewer authorities	
6. Drainage and conservancy districts		13. Public drainage authorities	
7. FmHA county committees		14. ASCS county committees	

3. **Development of a comprehensive water surface management program.** There is a need to recognize lakes and streams as management units in order to assure a comprehensive approach to decision-making regarding them. Recognition of this need necessitates that goals, objectives, and policies for water surface management on a statewide basis be developed. These should be developed through an interagency task force, led by the Department of Natural Resources. In addition, accelerated acquisition of public access to surface waters should be undertaken, focusing on the metropolitan area and areas of rapid lakeshore development.

4. **Determination of wetland values and accelerated implementation of the Public Waters and the Water Bank Programs.** Among other things, the Department of Natural Resources should (1) identify state goals for wetland management; (2) determine specific characteristics of wetlands providing flood control, nutrient and sediment retention, ground-water recharge, and other public benefits (with financial assistance from the Corps of Engineers); and (3) undertake a statewide inventory of wetlands which reflect the characteristics and values of wetlands providing public benefit. When these activities have been completed, priorities for compensation and acquisition programs can be established, with adequate compensation to encourage wetland preservation.

5. **Initiation of a water conservation technical assistance program.** Water conservation programs are a potentially effective means of promoting efficient water withdrawal and consumption in Minnesota. Employing federal funds expected to become available as a result of federal water policy initiatives, the state should take the lead in obtaining, evaluating, and disseminating information on conservation techniques through an education and technical assistance program closely tied to existing structures (e.g., the Agricultural Extension Service, the Department of Education, and the Minnesota Environmental Education Board). The state coordinating body should be designated as the clearinghouse for these activities. Emphasis should be on voluntary adoption of techniques, with programs arising from the local level employing state technical assistance.

6. **Establishment of a pilot project to evaluate marginal cost pricing for municipal water supplies through actual application by a local utility.** Marginal cost pricing for municipal water supplies may bring about more efficient allocation of water, prevent excessive demand for water at the source, and eliminate uneconomic capacity expansions. However, neither the costs of implementing such an approach nor the actual effects on water use are known. Thus, the pilot project approach is justified.

7. **Implementation of related land use measures which preserve and protect the state's water supply and maintain its availability for its best use.** Measures which should be adopted include (1) expansion of funding for the existing state soil and water conservation cost-sharing program; (2) mandatory statewide adoption of construction site erosion controls through county and municipal ordinances; (3) mandated considerations in irrigation permit issuance (e.g., soil types, topography, economic impacts, and potential for ground-water contamination), in conjunction with a longer-term interagency study of where irrigation development might be permitted and where it may be infeasible or impractical; (4) an evaluation of the Shoreland Zoning Act; and (5) consolidation of

the existing rural water supply system law into a single statute. It should be recognized that several of these recommendations may be affected by decisions in the concurrent "208" water quality planning effort in Minnesota.

7. IMPROVED DATA COLLECTION AND DISSEMINATION

Gathering and utilizing timely and accurate data concerning the state's water resources is one of the keys to effective management. Development and maintenance of state water resources goals and measureable objectives requires sufficient and correct information. To be useful, such information must be readily retrievable.

In 1978, nearly 60 programs or projects were cataloged in Minnesota which deal with primary water resources data collection. A major problem was identified in the ability to share and disseminate this information for use in planning and management decision-making. To assist in remedying this problem, the Water Planning Board recommends:

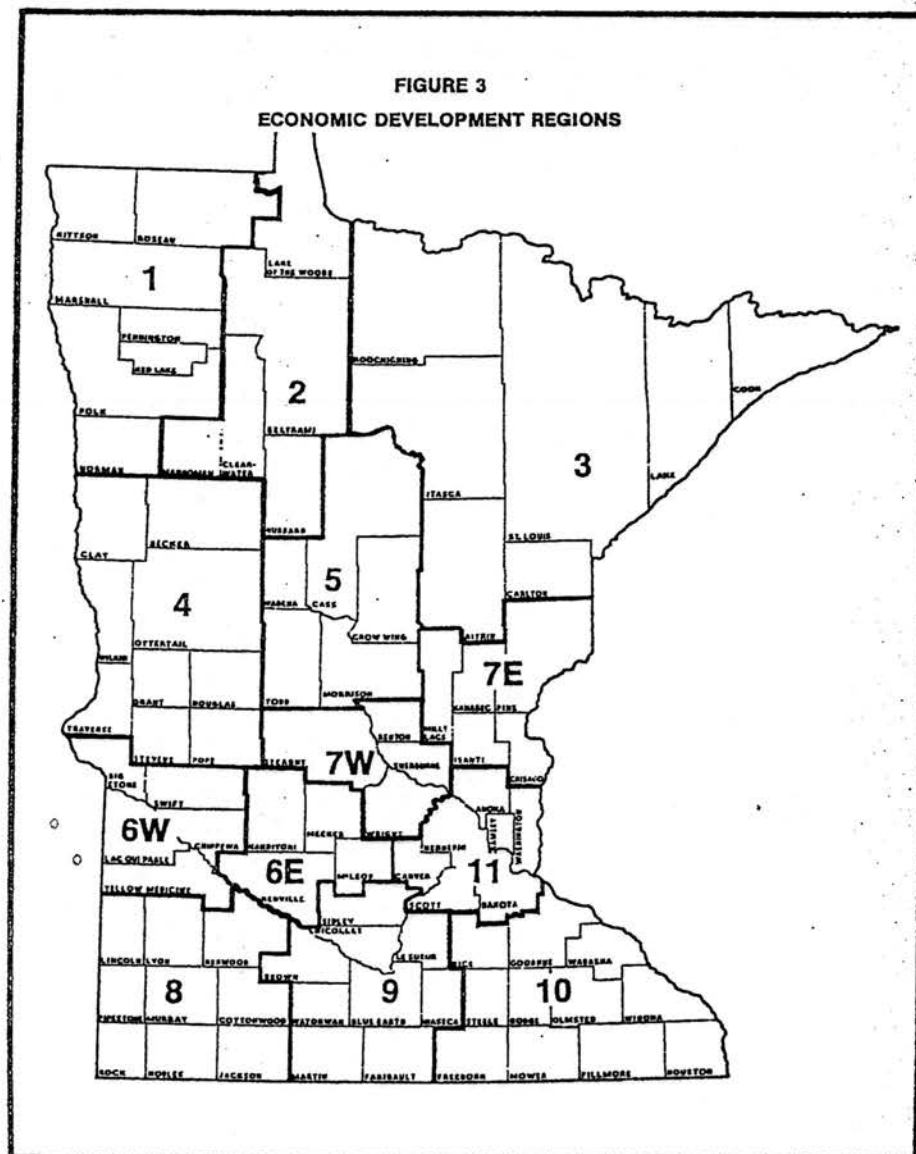
1. **The State of Minnesota continue to support and develop a comprehensive water resources information system including the collection, interpretation, and extensive dissemination of data.** This system should develop as a mechanism to tie together existing and future individual agency information systems in order to coordinate and simplify user access. This system, presently called SWIM (Systems for Water Information Management), should be further developed within the State Planning Agency Land Management Information Center, in coordination with the interests of the state agencies (as expressed by a User's Committee). Funding should be administered and coordination assured through the state coordinating body.

2. **The high-priority elements of SWIM involve policy and service functions, provision of limited technical assistance to agencies, and assessment of priorities for information systems development.** River mile indexing, data quality, geo-reference, and parametric data standards should be established to provide uniformity to SWIM output.

3. **An increased emphasis on buried aquifers in the U.S. Geological Survey Cooperative Ground-Water Study Program.** Studies conducted under this program have dealt primarily with surficial, sand-plain aquifers. Although substantially increased expenses will be involved, the emphasis should be changed to studies of buried aquifers, particularly in areas where surficial aquifers are not widespread and where water use appears to be increasing.

4. **A continued expansion throughout Minnesota of the ground-water observation well network.** Wherever feasible, observation wells should be used to monitor quality and quantity and to update the ground-water information system data base. In part to supplement and expand this information, (1) the Department of Natural Resources should continue to require well logs for test holes source information on aquifers, and pumping tests for ground-water permit applications in areas where this information is not available from other sources, and (2) the hydrogeologic research functions and well log data acquisition programs of the Minnesota Geological Survey and the Department of Health should be continued until an adequate hydrogeologic data base is established for the state.

FIGURE 3
ECONOMIC DEVELOPMENT REGIONS



8. COMPREHENSIVE FRAMEWORK FOR NATURAL RESOURCES DECISIONS

The state has three major roles in water resources decision-making: protector, developer, and allocator of water resources. Each of these roles might benefit from the support and guidance which can be provided through planning, evaluation, and research.

By definition, planning involves taking present actions to prevent future problems. Planning functions which could benefit the State of Minnesota include (1) anticipation of short- and long-term demands for the state's water resources; (2) development and maintenance of explicit, comprehensive water-related goals to reflect overall state needs and citizen desires; (3) coordination and integration of the policies of state agencies involved in water management; and (4) development and maintenance of a forum for citizen participation in water resources decision-making.

In simplistic terms, the purpose of research is to aid in the understanding of the environment. This understanding should be reflected in policy decisions which lead to the ultimate goal of providing the greatest good for the greatest number of people. Specifically, in the area of water resources, it is crucial that researchers uncover new facts and discover interrelationships which can be used in planning to conserve and utilize the water resources of Minnesota in the best interests of the people of the state.

To facilitate the functioning of the state in its roles as protector, developer, and allocator of water resources, the Water Planning Board recommends that:

1. **Water planning be supported on the state level at two organizational points.** The state coordinating body should be charged with directing state involvement in activities relating to the federal Water Resources Planning Act (P.L. 89-80), comprehensive interagency planning efforts, and evaluation and recommendation of improvements in water resources management and regulation. The coordinating body should build on the Water Planning Board's framework plan efforts by initiating and coordinating more detailed studies needed to address water resources problems cutting across agency interests, levels of government, and political boundaries.

Water planning by water management agencies should be directed toward support of agency programs and objectives. Such functions should include program planning and evaluation (discussed above), as well as program-related resource planning functions.

2. Citizen participation in water resources decision-making be carried forward by both state agencies and the state coordinating body. State agencies involved in water management should develop ongoing programs of citizen participation, staffed by full-time coordinators not directly involved with the affected programs. The state coordinating body should continue a citizen's forum like the Water Planning Board's current Water Interests Advisory Committee. Further, the coordinating body and state agencies should develop and maintain links to the regional citizen participation forums.

3. The State of Minnesota continue to place primary reliance on its Universities for water resources research. However, (1) efforts should be made to more closely link University research to state needs through regular and extensive communication among researchers, planners and decision-makers and (2) the state should be prepared to provide increased research funding if federal funding decreases. The state should continue to utilize relevant federal and private research findings to supplement University research efforts.

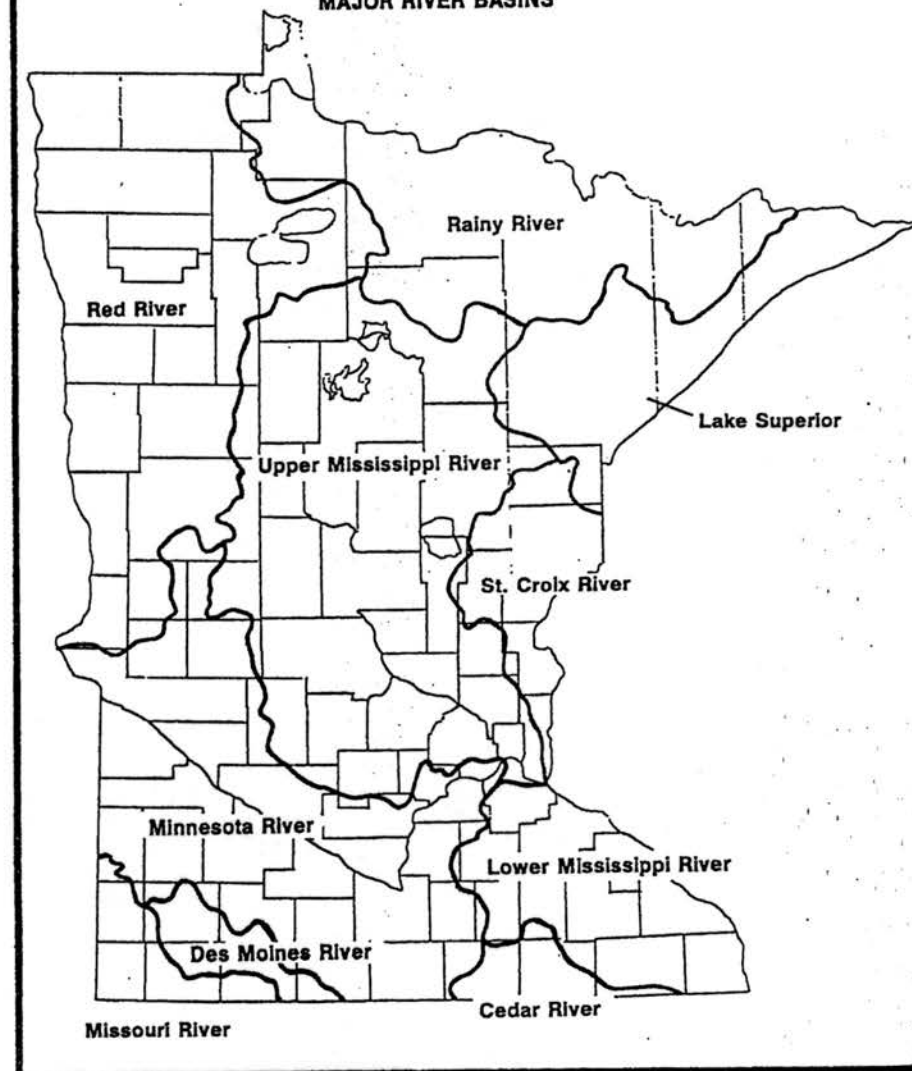
9. OTHER RECOMMENDATIONS

The preceding discussion was intended to serve as a summary and therefore does not cover each of the recommendations of the Board. For example, major recommendations in the areas of federal-state relations, water quality, and flooding and flood damage reduction have not been described. The fact that certain recommendations are not summarized here should not diminish their significance. These recommendations should also receive careful consideration by the public and the decision-maker.

10. CONCLUSION

The Water Planning Board does not prescribe a future for Minnesota, but does make recommendations which would influence the future. A water and related land resources strategy for Minnesota can never be a fixed product. It must involve an ongoing process, including evaluating state goals and policies to guide change in an orderly way and supporting consistency with state objectives. To be effective, this process must involve a team effort which utilizes Minnesota's state, regional, and local level resources.

FIGURE 4
MAJOR RIVER BASINS



MANAGEMENT OF MINNESOTA'S WATER RESOURCES

Although localized, often severe, shortages will occur and periods of critical supply problems will result from drought conditions, Minnesota is now and is likely to remain a "water-rich" state. The future adequacy of both the quantity and quality of our water resources will depend primarily on our proper management of existing resources.

Proper water resources management implies research, education, understanding, citizen involvement, analysis, and planning—not simply institutional structures and regulation. The state has no choice but to be concerned about society's need for both economic well-being and a quality environment. Wise resource management can result in a preservation of the environment and a correction of existing environmental deterioration, as well as planned economic growth and development.

A Summary of the Management Strategy

The management of water resources involves important contributions by each level of government and by the citizens of the state. The problems which confront government and citizens are many and varied, but are also interdependent. They include the effects of flooding, drought, drainage, water pollution, recreational demand, land use, and, not the least important, improper management of our water resources. The existing institutions working in water management have not always worked together effectively. Instead, a fragmented, often disorganized approach has evolved; an approach which tends not to recognize or deal effectively with the interdependence of water problems and management solutions. Specific problems and issues in the management of water and related land resources (e.g., the problems of flooding and management solutions) are discussed elsewhere in this framework. This section describes how the policies and options presented under these specific areas should be addressed by government in a coordinated, forward-looking manner.

Five levels of government are currently involved in decision-making affecting Minnesota's water and related land resources. They are the federal government; the interstate level of government, including the federal-state basin commissions and interstate compact arrangements; the state level, through the Legislature and the executive branch; regional entities, including regional development commissions and specialized boards; and the local level of government.

The five levels of government have become involved in the management of Minnesota's water and related land resources for very good reasons. Some of these are political, going back to the formation of this country with emphasis on state's rights and interstate coordination. Others are economic, with greater economies of scale in development of technical expertise, programs, and projects possible at higher levels of government. Others recognize that the lowest levels of government are closest to the problems and the people who must live with them.

The Water Planning Board recommends a water management strategy that would strengthen the ability of Minnesotans to determine how they choose to manage their water and related land resources. The emphasis of this strategy is on the state's stewardship of natural resources and the incentives the state could provide to encourage local and regional initiative in water management. This

emphasis recognizes the importance of obtaining the understanding and support of those most directly affected by water management problems and decisions. It recognizes, too, that this support can best be achieved by encouraging and developing the capability of local governments to initiate and implement solutions to water problems within the guidelines of state policy and with the help of regional, state, and federal expertise.

The fundamental requirement of the recommended strategy is an ongoing process for making water policy and water management decisions in Minnesota. A procedure is needed to make sure that (1) local and regional ideas and needs are addressed in and contribute to state policy, (2) the state can be responsive to local initiatives and regional views, and (3) state government can develop comprehensive and coordinated policies to guide its interaction with other states and with the federal government. An ongoing process is needed because (1) water problems continually change, (2) people need to know from one year to the next how they can influence water policy and get answers to water problems, and (3) people must have confidence that the time they spend on ideas and plans will influence state policy and actions, regardless of whether the same individuals work in the government from one year to the next.

In order to work, the process must be centered around one organization at each level of government. This organization must be capable of identifying and reconciling competing and conflicting views. It must be capable of expressing and addressing the needs for water management at its particular level of government. A water resources coordinating body is necessary to provide a focal point for the process at the state level. The coordinating function of this body must be to pull together the plans of local and regional agencies and mesh these with the resource policies and programs of state agencies. In short, this body must reconcile conflicting policies and directions of state agencies with those of local and regional governments. For the process to be successful, this body must have sufficient authority to change state policy in line with the overall state interest and the initiatives and plans developed by local government.

The Water Planning Board recommends that the Legislature determine the appropriate body to be charged with carrying out this vital function. The options, each with its advantages and disadvantages, range from a single agency charged with coordination, to an interagency board, to a citizens board. Existing entities or a new organization might be employed to serve this function. The Board also recommends that part of this body's authority be obtained through its direct link to the Governor and the Legislature. The link should consist of (1) a commitment by the Governor to the water management process and coordinating function and (2) a program and policy review charge to advise the Legislature on the compatibility of agency budgetary requests with the state's overall policy and framework strategy.

Importantly, the Water Planning Board recognizes the corresponding need of state water management agencies to develop their own program planning and evaluation capability, since these agencies are the primary managers of water and implementors of water policy at the state level.

Looking to strengthen the voice that local water management districts have at the state level, the Water Planning Board, in consultation with the Water Resources Board, the Soil and Water Conservation Board, and the Department of Natural

done
Resources, will analyze the feasibility of and, if feasible, develop a plan for consolidating functions of the WRB, the SWCB, and DNR oversight of the formation of lake improvement districts. A consolidated board could have greater impact on state agencies, provide a strong advocate of local views in decisions of the coordinating body, encourage a coordinated state policy concerning local water management activities, and permit more effective use of staff at the state level.

At the regional level, regional development commissions should be utilized to provide the important link in the process between state policy and local plans. The commissions are currently charged with reviewing and coordinating local planning efforts within the context of regional comprehensive plans. This function is important to the success of the proposed water management process since RDC's offer a comprehensive perspective and, potentially, a good vehicle for keeping state and local agencies in touch. In line with this, regional development commissions should serve as a forum for generating and focusing citizen input to the plans and programs of state agencies and the state water resources coordinating body. In those situations where water management problems and plans must necessarily cross commission boundaries, ad hoc river basin boards should be formed to advise the state coordinating body. Finally, in those instances where the coordinated implementation of regionwide water management projects is needed, joint powers agreements among counties, watershed districts, and other local entities should be utilized.

what this means
At the local level, the state should encourage and facilitate initiation of water management plans and projects. Encouraging the development of water management plans is viewed as an effective way for local government to (1) address water management problems systematically and comprehensively (including water supply and quality, flooding and drainage, recreation, and other subjects), (2) provide a focus for citizen involvement and participation in the solution of water problems, (3) speed up state approval of permits that might be required in plan implementation by having prior acceptance of plans at state and regional levels, and (4) facilitate the administration of state permit programs by local authorities whenever feasible. - *see regulation*

changed
The Water Planning Board recommends that watershed districts, where they exist, and general purpose governments (i.e., counties and municipalities) where they do not, be the focal point for the development of local water management plans. Soil and water conservation districts must play a major role in development of such plans and be responsible for the soil and water conservation elements of such plans.

The Water Planning Board recognizes that several important issues need to be addressed to enhance the capability of local water management authorities to develop water management plans and effective programs. Important issues which need to be addressed include (1) what the relationships should be among special purpose districts, local general purpose governments, and regional planning authorities, (2) whether and when watershed or political boundaries should be followed and what the appropriate size of districts might be, (3) whether districts should be governed by elected or appointed managers, (4) what technical expertise and administrative staff are required for independent planning, management, and policy analysis capability, and (5) what the nature and extent of state oversight should be. The Water Planning Board recognizes the need for a highly visible public debate on these issues and has consequently recommen-

ded that meetings be conducted statewide to consider clarification and improvements in authorities and relationships of local water management agencies. The implementation of this recommendation would be a very important step toward strengthening the capability of local government for participating in the water management process and for influencing state water policy and actions. The final outcome of this recommendation—clarifications and improvements in authorities and relationships—may affect the roles and participants at the local level.

In short, the Water Planning Board recommends that:

- ** The state serve as the steward of Minnesota's water and related land resources, providing policy guidance and incentives for local and regional action;
- ** Regional governments focus on integrating local interests with a comprehensive view, providing coordination among levels of government, and affording assistance to local authorities; and
- ** Local governments initiate local management plans and implement solutions to the problems, consistent with state policy guidelines.

This process requires continuous (1) three-way interaction among the state, regional, and local units of government; (2) efforts to refine and improve authorities and clarify relationships at each level; and (3) better mechanisms and efforts to achieve communication among all parties.

Management Recommendations

The Water Planning Board makes 22 management recommendations in six major areas.

Drawing on the discussion of "Water Resources Coordination" (see Selected Issue Areas above) and the full range of analysis provided later in this section, the Board recommends that:

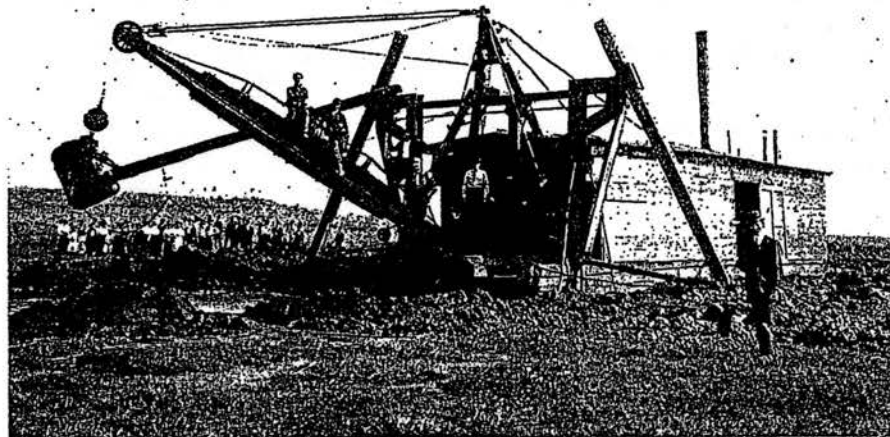
- ✓ (1) ① **The State of Minnesota establish or explicitly identify a water resources coordinating body with adequate authority to carry out coordination functions.** The coordinating body should be provided with authority to (a) resolve interagency conflicts in water policy; (b) coordinate public water resources management and regulation activities with framework plan recommendations, including review and advice concerning compatibility of agency programming and budgetary requests with plan elements; (c) develop comprehensive water-related goals and policies; (d) direct state involvement in activities relating to the federal Water Resources Planning Act and other federal programs cutting across agency lines; (e) initiate and coordinate interagency water planning and integrate plans of local and regional agencies with state strategies; (f) evaluate and recommend improvements in the state laws, rules, and procedures in the area of water resources management and regulation by public authorities; and (g) carry out citizen involvement activities. The coordinating body should provide a forum for representation of all major state water management agencies and have the capability to carry out the above functions.

An interagency "Priorities Committee" should be established to assist the coordinating body in identifying state and federal program priorities. The Committee's federally-related functions are discussed in the "Federal-State Relations" section of this document. (See Selected Issue Areas.) The Committee's state functions should include recommendations to the coordinating body with regard to: (1) initiation or review of new state program proposals for areas with identified water-related problems; (2) ranking of new planning, analysis, and research proposals for which state funding has been requested; and (3) provision of input to the Legislature in regard to state program proposals. (See fourth "Accountability and Enforcement" recommendation below.)

- ✓ (2) **The Legislature—with input from the public—select the appropriate entity for housing the coordinating function.** The major options include the Department of Natural Resources, the Environmental Quality Board, an entity modeled after the Water Planning Board, and various types of citizens boards. In selecting among the options, the Legislature should consider the degree to which each option provides
- (a) a forum for representing all major state water management activities;
 - (b) the authority and capability to carry out coordination activities;
 - (c) the authority to determine which issues are interagency in nature and to resolve these issues;
 - (d) the authority to receive and the ability to administer federal funds; and
 - (e) an effective means for integrating local and regional plans into the state strategy. In addition, the cost of implementation and political viability must be considered.

The means by which state water management agencies are held responsible for their actions and the ability of state agencies to compel compliance with state water management regulations raise important issues. These issues are discussed below under the heading of "Accountability and Enforcement." In this area, the Board recommends that:

- ✓ (1) **Interagency water policy conflict resolution be carried out by the state coordinating body.** An interagency policy conflict involves two or more agencies unable to reach a mutually acceptable course of action in a timely fashion concerning a matter of water policy in which each agency has a legislative mandate. This may include matters relating to planning and regulatory decisions, or interpretations of the legislative intent of statutory language. The coordinating body should be authorized to resolve conflicts involving water policy upon its own initiative, or upon petition of involved agencies where it deems a matter of water policy is at stake and a timely resolution would not be otherwise forthcoming.
- ✓ (2) **The process of water policy conflict resolution currently carried out by the Water Resources Board be discontinued by the Legislature.** Interagency policy conflict resolution presently under the authority of the Water Resources Board should be administered by the state coordinating body. Resolution of private-state conflicts should continue to be handled through the Office of Hearing Examiners and the courts.
- ✓ (3) **The state initiate program planning and evaluation functions within each water management agency.** These functions should be made an integral part of the budgetary process. Program planning should include



development of work programs setting out activities and specific objectives to be achieved by program managers during the course of each fiscal year. Objectives should be clearly tied to appropriate sections of the framework water and related land resources plan. Program evaluation should include assessment of the effectiveness of water resources management and regulation activities in order to measure the degree to which legislative goals are being met and to identify means of improving program effectiveness. Agencies charged with carrying out water management programs should be required to provide biennial evaluations to the Legislature detailing findings and recommending actions. Such evaluations should be submitted in conjunction with and supportive of agency budget requests.

- ✓ (4) **The state coordinating body serve in a review and advisory capacity to agencies and the Legislature concerning the compatibility of agency programming and budgetary requests with the framework water and related land resources plan.** The coordinating body should review current programming and future planning of state water management agencies to identify areas of potential conflict with the framework water and related land resources plan. The coordinating body should work with affected agencies to resolve conflicts, and to the extent practical, coordinate findings with agency budgetary requests. The coordinating body should report its findings on the compatibility of agency programming and future planning with the framework plan to the Legislature in each even-numbered year.
- ✓ (5) **The Legislature initiate a natural resources management fund targeted at assisting local water management authorities in implementation of state mandated programs.** The State Planning Agency should be designated as the state agency charged with administration of the fund.

A committee of natural resources management agencies should be formed to advise the State Planning Agency on the eligibility and priority of grant applications. Local water management authorities should be required to demonstrate need and feasibility of applications through development and submission of program plans in conjunction with applications.

A specific charge to the Water Planning Board was to examine organizational changes at the state level. Based on its analysis, the Board has rejected options to develop a Department of Waters or a natural resources "super" agency, favoring instead the coordinative approach with increased agency evaluation and budgetary analysis described above. With respect to "Organizational Changes at the State Level," the Board further recommends that:

- ✓ (1) **(8)** The coordinating body reevaluate major reorganizational options for the Department of Waters and a natural resources "super" agency within five years after the initiation of agency program planning and evaluation functions.

This recommendation is closely linked to the third recommendation above. The Board believes each agency should be given a reasonable period of time to place into effect the coordination and accountability functions of water planning and budgetary processes.

- ✓ (2) **(9)** Detailed examination be made of the feasibility of consolidating functions of the Soil and Water Conservation Board, the Water Resources Board (excluding its water policy conflict resolution process), and the oversight of lake improvement district formation by the Department of



Natural Resources. The staff of the Water Planning Board shall conduct this examination in consultation with the two boards and the DNR, and shall present its findings to the Water Planning Board by March 1, 1980. The analysis shall include specific recommendations for legislative action should consolidation be considered feasible and desirable. The Water Planning Board shall evaluate study findings and make appropriate recommendations to the Governor and the Legislature.

(3) **(10)** The Department of Natural Resources be designated to administer the proposed statewide flood damage reduction program in conjunction with the Soil and Water Conservation Board. The Department of Natural Resources would be charged with determining initial eligibility of proposals through review and approval of comprehensive flood plain management plans. The DNR and the Soil and Water Conservation Board shall establish, by formal agreement, procedures for coordinating administration of structural grants by the SWCB with non-structural grants by the Commissioner of the DNR.

A number of options for further consolidation are noted in the text. The Legislature and Governor may review this list of separated or fragmented programs and determine if further study is desirable. The Water Planning Board has not evaluated the operations of these programs sufficiently to warrant recommendations of program transfer or consolidation. The Board recognizes that certain transfers and consolidation of functions may be justified by more extensive evaluation.

The Water Planning Board makes four recommendations with regard to "The Role of the State in Water Resources Planning":

- ✓ (1) **(11)** Water planning in state government be supported at two organizational levels, through a coordinating body and by water management agencies. The coordinating body should be provided with authority to direct state involvement in activities relating to the federal Water Resources Planning Act and in comprehensive interagency planning efforts. In addition, it should have the authority to evaluate and recommend improvements in state laws, rules, and procedures in the area of water resources management and regulation.

Water planning by major water management agencies should be directed toward support of agency programs and objectives, and should include program planning and evaluation (see "Accountability and Enforcement" recommendations above) as well as program-related resources planning functions.

- ✓ (2) **(12)** The coordinating body build on the efforts of the Water Planning Board in developing the framework plan by initiating and coordinating more detailed studies needed to address water resources problems cutting across agency interests, levels of government, and political boundaries.

- ✓ (3) **(13)** The coordinating body continue support of a citizen's forum similar to the Water Interests Advisory Committee of the Water Planning Board. This forum should be charged with initiating and coordinating citizen participation in water planning and management activities of the coordinating body.

- ✓ (4) **State agencies involved in water planning and management develop ongoing programs of citizen participation.** These programs should be staffed by full-time coordinators not directly involved in the day-to-day operations of affected programs.

The recommendations of the Water Planning Board with regard to "Regional Water Management" are that:

- ✓ (1) **Three water management functions be carried out at the regional level.** Two of these—serving as a forum for citizen involvement in state water planning programs and providing regional coordination with comprehensive planning—should be carried out statewide on an ongoing basis. The third function—implementation of regionwide projects—should be carried out only when necessitated by hydrologic conditions.

- ✓ (2) **Regional development commissions, including the Metropolitan Council, be charged with providing the forum for citizen participation in state water planning programs and with coordinating water management project proposals with comprehensive regional plans.** In addition, RDC's should be charged with recommending priorities for proposed actions to the coordinating body and appropriate state agencies.

- ✓ (3) **River basin boards similar to the Southern Minnesota Rivers Basin Board be formed on an ad hoc basis as major river basin studies are developed by the coordinating body.** The Southern Minnesota Rivers Basin Board should become such a body at the conclusion of the F.Y. 1980-81 biennium. The SMRBB is presently participating in an area study, in conjunction with the Soil Conservation Service and the Corps of Engineers. This function should be maintained, but combined under the comprehensive state framework provided by the coordinating body. The position currently allocated to the SMRBB should be continued under the coordinating body to relate directly to the southern Minnesota study area.

- 3 (4) **The state not exclude any type of regional authority from implementing regionwide projects under the flood damage reduction grant-in-aid proposal, provided the regional authority can satisfy operational requirements for administering such projects.**

Local water management considerations are of great importance to Minnesota because the local level of government is closest to water resources problems and, consequently, where the problems are first perceived and where solutions must be implemented. Recognizing these facts, with respect to "Local Water Management," the Water Planning Board recommends:

- ✓ (1) **The state encourage and place greater emphasis on the initiation of water management plans and projects at the local level of government, consistent with state policy guidelines.** Development of water management plans is viewed as an effective way for local government to

(1) address water management problems systematically and comprehensively, (2) provide a focus for citizen involvement and participation in the solution of water resources problems, (3) speed state approval of permits that might be required in plan implementation by having prior acceptance of local directions at the state and regional levels, and (4) facilitate the administration of state permit programs at the local level, when feasible. Until the final resolution of Recommendation 2 below, the Water Planning Board recommends that watershed districts—where they exist—and general purpose governments (i.e., counties and municipalities)—where they do not—be the focal point for development of local water management plans. Soil and water conservation districts must play a major role in development of local plans and be responsible for the soil and water conservation elements of such plans.

- ✓ (2) **The state coordinating body prepare analyses and presentations for statewide meetings concerning possible clarifications and improvements in the authorities and relationships of local water management agencies.** The Water Planning Board recognizes the need to clearly define the functions of local water management authorities and to assure that adequate authority and expertise exist at the local level throughout the state. It also recognizes the desirability of consolidating local water management functions, where feasible. The Water Planning Board fully recognizes the experience and expertise represented on the State Soil and Water Conservation Board and the Water Resources Board and recommends that these two boards, or their successors, work closely with the state coordinating body in the conduct and analysis of the statewide hearings on local water management authorities.

- (3) **Where they exist, watershed districts be the designated authority for the assumption of local operational requirements in the proposed statewide grant-in-aid flood damage reduction program.** Where non-structural alternatives are included, watershed districts shall coordinate activities with counties or municipalities, as appropriate. Counties, municipalities, and various joint powers agreements may assume both structural and non-structural functions on a case-by-case basis in areas not covered by watershed districts.

- ✓ (4) **The Legislature repeal Minnesota Statutes, Chapter 111 and the remaining drainage and conservancy districts be required either to transfer their authority to those of Minnesota Statutes, Chapter 112 or to transfer ongoing maintenance responsibilities to the affected counties.** Repeal of Chapter 111 will update state statutes and reduce the various types of local districts involved in the management of waters.

The remainder of the section on "Management of Minnesota's Water Resources" focuses on the existing management setting and the issues and options addressed in the process of reaching the above recommendations.

Present Water Resources Management in Minnesota

Minnesota Statutes, Section 105.401 required the Minnesota Water Planning Board to "Evaluate and recommend improvements in state laws, rules, and procedures in order to reduce overlap, duplication, or conflicting jurisdictions among the many state and interstate agencies having jurisdiction in the area of public water resource management and regulation." This charge was inserted in the 1977 law in response to concerns expressed by citizens, administrators, and legislators with the number of water management programs in the state, possible overlapping program functions, and the lack of coordinated, comprehensive decision-making among the various programs.

The Water Planning Board has identified 16 state agencies and boards which administer more than 80 water-related programs in Minnesota. Achievement of the identified goals of these programs requires coordination and exchange of vast amounts of information among various decision-makers.

Although 16 state agencies and boards are involved in water management in the state their level of involvement varies greatly. Of the 63 major water-related programs reviewed in depth by the Board, the Departments of Health and Natural Resources and the Pollution Control Agency are responsible for 46, or nearly 75 percent. In contrast, the Minnesota Historical Society and the Iron Range Resources and Rehabilitation Board have only tangential relationships to water resources. Between these extremes are the Soil and Water Conservation, the Water Planning, and the Water Resources Boards; the Departments of Agriculture, Economic Development, and Transportation; the Energy and State Planning Agencies; the Environmental Quality Board; the Division of Emergency Services of the Department of Public Safety; and the University of Minnesota.

Figures 10 and 11 illustrate state surface- and ground-water and related management programs. In addition, there are fourteen local agencies, seven interstate agencies, and five regional (intrastate) agencies directly involved with water resources in Minnesota. At least 12 federal agencies directly affect water resources management in the state.

Minnesota's major water management programs can be grouped into five topical areas. These include:

- ** **Water resources planning and environmental review.** This area includes water resources planning programs, environmental review, and health risk assessment. Seven major state programs were reviewed in this topical area.
- ** **Water quality management.** Included in this area of management responsibility are water quality standards development, water quality monitoring, permit and certification programs, water treatment systems programs, runoff-related pollution control planning and management, public drinking water quality programs, and ground-water quality control. In all, nearly one-half of the 63 water-related programs reviewed by the Board fell within this area.
- ** **Water quantity management.** These management functions include the public waters inventory and water bank program, the water resources permit programs for works in public waters and appropriations, public drainage plan review, water quantity research and support, and industrial and agricultural water use programs. Nine programs were reviewed in this area.

(In reviewing their comparative numbers, it should be noted that programs such as the permit programs cover broad ranges of activities, while those in other areas—such as water quality—may be targeted on specific actions.

- ** **Related land resources management.** This category includes programs relating to flood management and flood insurance; flood control coordination; development of flood control projects; critical areas, coastal zone, wild and scenic rivers, and shoreland management; and dam safety.
- ** **Wildlife and recreation management.** This area of programs includes scientific and natural areas management, wildlife management, ecological services, canoe and boat route planning and acquisition, public access, and comprehensive recreation planning.

Several agencies administer programs in more than one of these topical areas. However, the Pollution Control Agency dominates the water quality management area (although the Health Department maintains a significant role in water quality management) and the Department of Natural Resources administers all of the programs in the wildlife and recreation management area and most water quantity management programs:

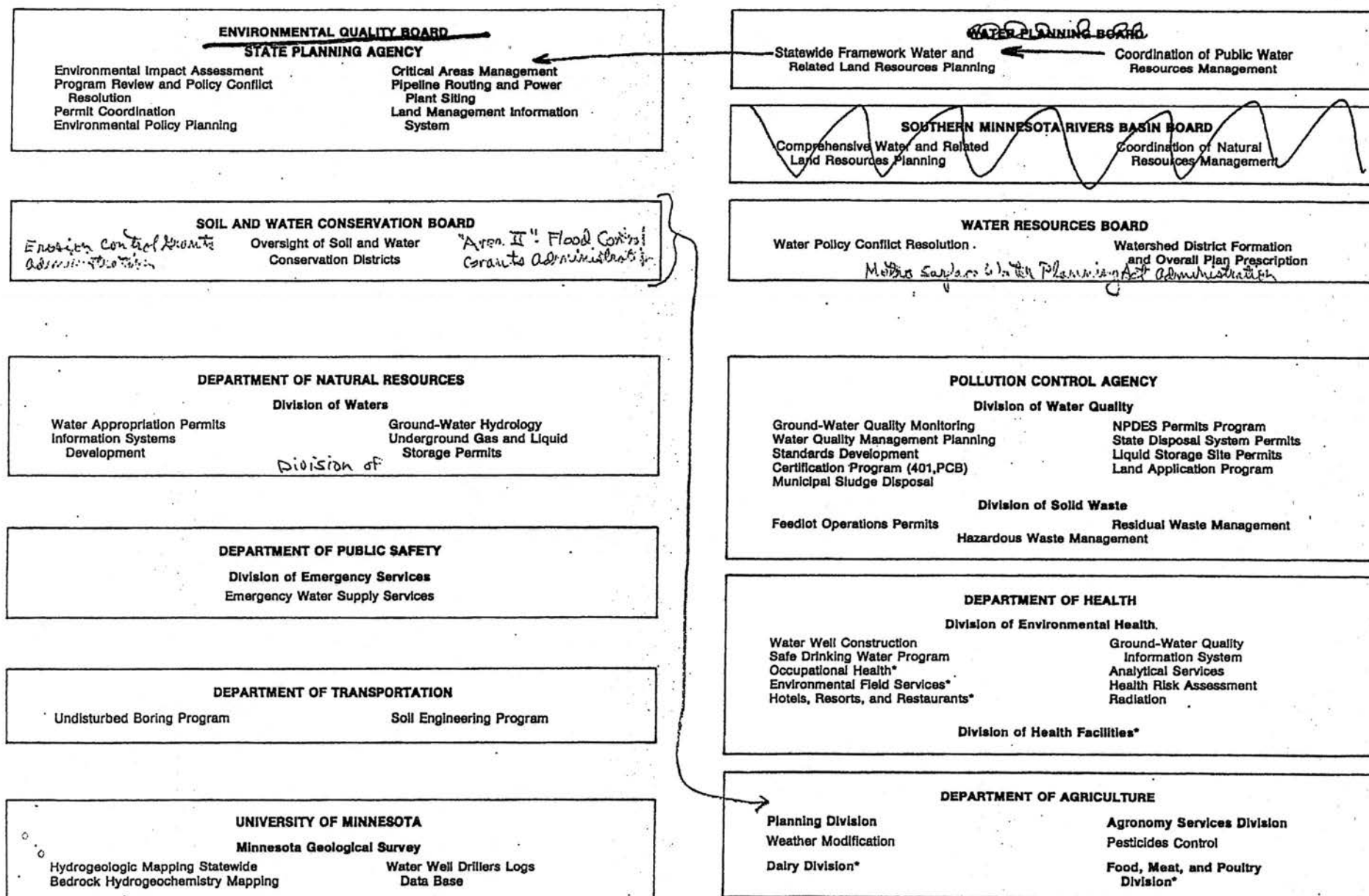
In total, 152 water management problem areas have been identified in programs analyzed by the Board. A "problem area" is defined as a specific problem encountered in the operation of a program which prohibits the achievement of program goals. However, not all problem areas identified are of equal concern. Some are very real problems; some could arise in theory, but have not been a hindrance to date; and some are minor. Of the 152 problem areas identified, 34 were highly relevant for further institutional analysis, 64 were of medium relevance, and 54 were of low importance from an institutional perspective.

In assessing institutional issues (rather than the validity of specific program determinations) eight categories of problem areas are discernible. "Problem area categories" are groupings of common institutional deficiencies which may be basic causes for all identified water resources management problems. The eight categories are: (1) overlap of authority, (2) gaps in authority, (3) poor coordination and communication, (4) inadequate citizen relations and participation, (5) inconsistent administration, (6) conflicts in priorities, (7) inadequate information, and (8) inadequate staff and funding. Major concerns (i.e., high relevancy problem areas) occurred most frequently in the water quantity management programs, with 11 highly relevant problem areas identified. Water quality management and related land resources management each contained eight high relevancy problem areas; water planning and environmental review, five; and wildlife and recreation resources management, two.

To further assess the identified major institutional problem areas, the Board focused on the three areas it believes to be most critical: (1) the water policy development process, (2) water quality-water quantity management interactions, and (3) the roles of state, regional, and local authorities and advisory bodies in water resources planning and management.

Figure 10

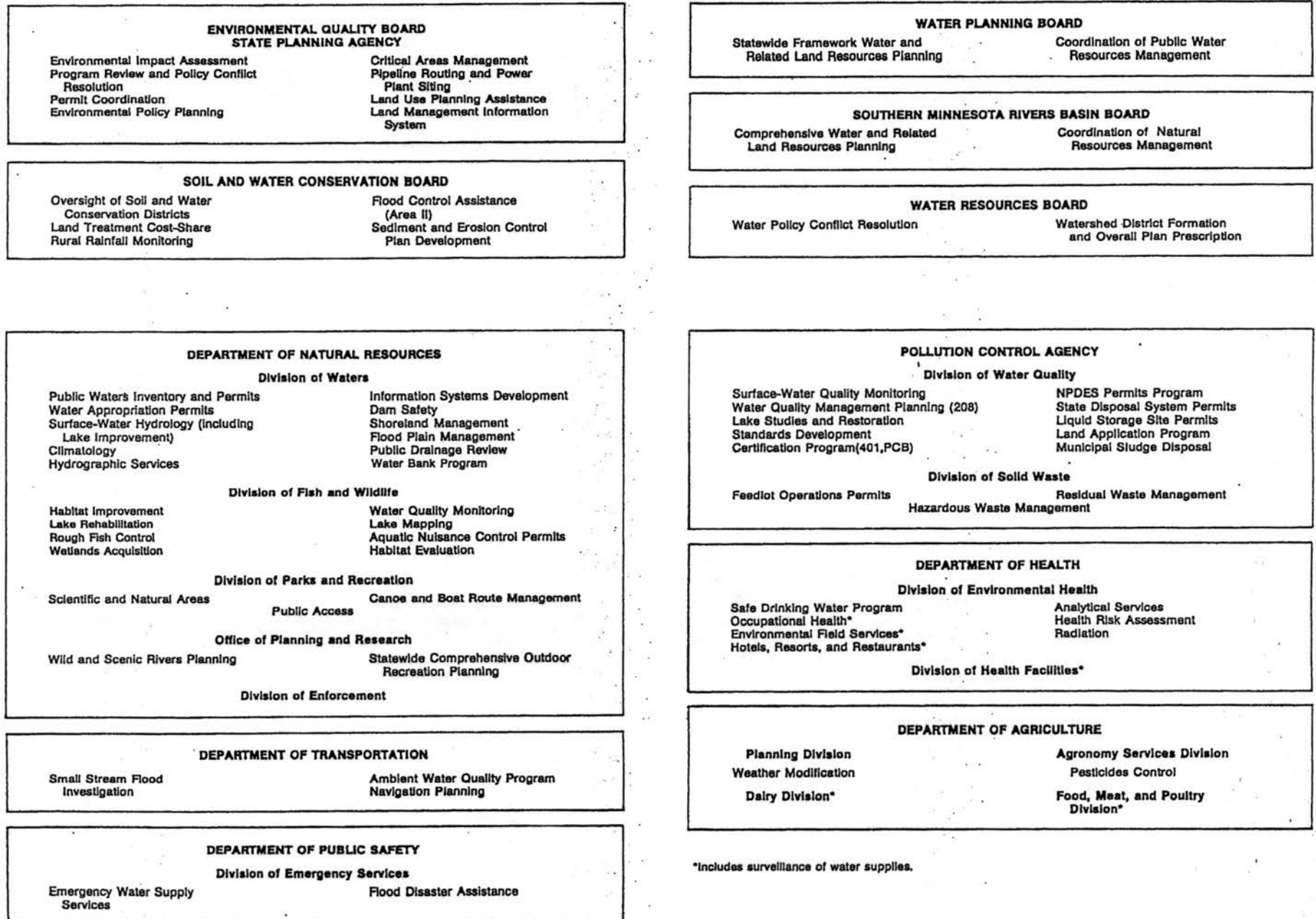
GROUND-WATER AND RELATED MANAGEMENT PROGRAMS



*Includes surveillance of water supplies.

FIGURE 11

SURFACE-WATER AND RELATED MANAGEMENT PROGRAMS



*Includes surveillance of water supplies.

Issue Areas and Optional Approaches to Resolution

The goal of the Water Planning Board in its management study was to identify the best institutional structure available for improving overall management of water resources in Minnesota. The Board's objectives were to identify organizational and institutional alternatives for (1) improving the manner in which state water policy is developed, (2) better integration of water quality and water quantity management decisions, and (3) implementing options that may be selected to improve management of water resources in the state. The following discussion identifies major issues related to achievement of these objectives; provides a discussion of each; and highlights conclusions with regard to selected management issues.

In choosing among available options, there are criteria which should be considered by decision-makers. These include: (1) the effect on reduction of overlap and duplication of water management functions and programs, (2) the compatibility of program objectives with agency goals and charges, (3) the priority given to water management within an organization, (4) the capability of institutions to carry out management responsibilities and operational requirements, (5) performance of institutions in carrying out related programs or options, (6) institutional stability, (7) the adequacy of funding methods and sources in support of education, research, data collection, planning, operations, and enforcement, (8) proximity to important service or reference programs and the ability to obtain input from them, (9) the effect on reducing expense of program administration, (10) the accessibility of program planning and decision-making to the public, and (11) the separability of functions.

The major issues are discussed in terms of (1) water management at the state level, (2) the role of the state in water resources planning, (3) water management at the regional level, and (4) water management at the local level.

(1) Water management at the State Level

Based on a detailed examination of water quality-quantity management interactions, the Water Planning Board has attempted to (1) identify overlap and duplication in state water resources management, (2) determine if the present institutional structure impedes integrated decision-making relating to water quality-quantity management, and (3) assess alternative solutions relating to accountability and enforcement problems, increased local initiative, and organizational changes at the state level. In addition, the Board has addressed the issue of which state agency should administer the proposed statewide grant-in-aid flood damage reduction program.

A. Overlap and Duplication

To deal with issues related to overlap and duplication, the terms must first be defined. "Overlap" means to extend over and cover part of or to have something in common. "Duplication" means the state of existing in two corresponding or identical parts. Thus, duplication may be considered the most overt kind of overlap.

Applying these definitions to water management authorities and activities, it can be concluded that no duplication exists if the same function is carried out by two different agencies for two different purposes. However, this would constitute an overlap. An example of overlap without duplication is evident in the water quality

monitoring programs of the Pollution Control Agency and the Departments of Health, Natural Resources, and Transportation. The MPCA monitors water quality to aid in its enforcement of water quality standards. The MDH monitors water quality to assure safe drinking water; the DNR to aid in its management of fisheries; and the DOT to assess impacts of highway development. While the overlap of functions is clear, duplication would not exist unless monitoring of identical parameters took place at similar times and places.

Since it is not always possible to determine when identified overlaps might become duplications, overlap and duplication are treated jointly in the discussion. More intensive analysis than was possible would be required to make such determinations.

The search for overlap and duplication of authorities and activities at the state level was carried out through surveys of and interviews with program managers, case studies, and a review of pertinent laws. Exhibit 1 identifies 11 areas of overlapping authorities. These include overlaps in: conflict resolution processes, coordination of water management, water and related land resources planning, protection of domestic supplies from degradation, storage of gases and liquids, protection of available supplies during critical periods, collection of well logs, regulation of well abandonment, the interaction of water pollution control programs with the Public Waters Inventory and Permitting programs, permitting of storm sewer systems, certification of dredge and fill operations, non-point source pollution control management, provision of guidance to multi-purpose water management districts, and implementation of a lake improvement program.

Thus, it can clearly be concluded that instances of overlap and duplication of state water management authorities exist. However, the utility or the inefficiency of these can only be judged on a case-by-case basis. In the area of both surface- and ground-water management, identified overlaps cannot be condemned outright as inefficient because they may lead to constructive advocacy and cross-check various agency activities. On the other hand, where overlaps exist, well-coordinated program management is required if inefficient and ineffective management of resources is to be avoided.

B. Impediments in the Present Structure

In the specific analysis of water quality-quantity management interactions, several impediments to integrated decision-making were identified. Exhibit 2 lists problem areas directly resulting from fragmented responsibilities in quality-quantity management at the state level and from the general absence of agency interaction in problem-solving and program development.

The items listed in Exhibit 2 indicate that the present institutional structure can be linked in a number of instances to problem areas in decision-making relating to water quality-quantity management interactions. Regardless of answers to specific questions (e.g., the administrative efficiency of having separate field-level personnel monitoring and enforcing interacting programs of the various agencies), the analysis indicates the need for acknowledging and formalizing relationships in managing quality and quantity of water resources. Means to facilitate identification, recognition, and formalization of interrelationships are needed.

EXHIBIT 1. EXAMPLES OF OVERLAPPING AUTHORITIES IN WATER RESOURCES PROGRAMS

Conflict resolution is currently provided by the Water Resources Board, the Environmental Quality Board, and the Water Planning Board.

The Environmental Quality Board is charged with coordinating environmental programs it judges to be interdepartmental in nature, while the Water Planning Board is charged with coordinating water resources management.

Both the Department of Natural Resources and the Water Planning Board are charged with preparation of a Framework Water and Related Land Resources Plan, including supply and demand assessment.

Both the PCA and the MDH may regulate the disposal of sewage and pollution of streams and other waters in protection of domestic water supplies, though the MDH generally defers to the PCA in such matters. The DNR is also charged with developing and managing water resources to assure supplies are adequate to meet long range seasonal requirements of quality and quantity. The PCA and MDH also both have special powers when emergency or critical periods are involved. In addition, the Minnesota Department of Agriculture has specific charges to contain and control pesticide spills, and to inspect and improve dairy and packing plant water supplies.

Both the DNR and the MDH are charged with requiring submission of well drillers' reports containing the logs of materials and water encountered.

The State Soil and Water Conservation Board, the Department of Natural Resources, and the Water Resources Board each provide guidance and a degree of supervision to multi-purpose water management districts at the local level of government.

*Protection of the availability of domestic supplies during critical periods is handled by both DNR and MDH. The DNR is charged with developing regulations governing mandatory adoption of ordinances by public water supply authorities. The MDH is charged with developing emergency plans to protect the public when declining quantities create health risks.

Both the DNR and the MDH have legislated responsibilities for regulating well abandonment, though the DNR's interest is in identifying potential observation wells, while the MDH's interest is in protection of ground-water quality.

The distinction between state water pollution control programs concerned with protection of "waters of the state" and public waters inventory and permit programs limited to designated waters having significant beneficial public purposes is potentially unclear to affected citizens. In addition, this overlap could lead to the PCA requiring dischargers to install expensive waste treatment facilities in order to protect an aquatic habitat from pollution, while the same habitat could be destroyed by private dredging with no public controls should it not be covered by the public waters designation.

*The DNR's permitting of storm sewer systems discharging to public waters could result in overlaps with the PCA. The DNR's permitting authority originates in its charge to regulate changes in the current, course, or cross-section of public waters. Should PCA choose to regulate storm sewers or plans for quality reasons, the two efforts would require effective coordination.

C. Alternative Solutions

The state level alternatives are divided into three areas: accountability and enforcement, increased local initiatives, and organizational changes at the state level.

i. Accountability and Enforcement

Issues of accountability and enforcement concern (1) the means by which state water management agencies are held responsible for their actions and (2) the ability of state agencies to compel compliance with state water management regulations. They represent related problems which may undermine successful management of water resources by state government.

Accountability. Options for improving accountability in water management at the state level include conflict resolution procedures and identification of an effective, systematic means for assuring agency compliance with statutory requirements.

Three state water management agencies currently have authorities in conflict resolution: the Environmental Quality Board, the Water Planning Board (on an interim basis), and the Water Resources Board. The principal conflicts addressed by these agencies may be categorized as those between citizens and governmental agencies or those among agencies. This scope must be considered in assessing conflict resolution approaches and needed improvements.

The Environmental Quality Board has explicit authority to resolve conflicts of an interagency nature when programs or problems significantly affecting the environment are involved. The EQB has complementary authority to review programs and suspend agency actions. Its involvement in program review to date has been limited to consideration of pesticides policies. The EQB also has water policy conflict resolution authority relating to private and governmental actions that may significantly affect the environment. This responsibility involves review of citizen-generated petitions to determine whether or not environmental impact analyses should be required. Extensive use of this authority has been made and much of the Board's time is occupied by this process.

**EXHIBIT 2. EXAMPLES OF PROBLEM AREAS IN
WATER RESOURCES DECISION-MAKING LINKED
TO INSTITUTIONAL STRUCTURES**

**underground injection control*

without talking to PCA, DNR

**sole source aquifer MDH → EPA*

*Interrelation of related programs is often lacking. For example, state and matched federal financial assistance to lake management authorities (county, municipality, or lake improvement district) could be tied to compliance with shoreland management, adoption of urban runoff abatement measures, or achievement of a specified level of farm conservation planning in rural areas. Acknowledgement of and formalizing interrelationships among scattered management programs could serve to achieve mutual objectives more efficiently.

Fragmentation of lake management authorities has spawned several independent data gathering activities. A Water Planning Board survey of data collection programs evidenced the need of program managers to access related lake data housed in other agencies, and to be kept informed of proposed data gathering activities. This need concerns not only limnological sampling, which could benefit from standardization of methodology and reporting, but also includes related hydrologic and land use information.

*Several examples relating to monitoring of quality in absence of quantity consideration and monitoring of quantity in absence of quality considerations were identified. For example, MPCA requires quality monitoring of roughly 800 observation wells adjacent to sanitary landfills, but level data is not consistently obtained. Correspondingly, DNR and participating soil and water conservation districts do not collect water samples for quality analysis when monitoring well levels or in conducting pumping tests. Though complete integration of such monitoring efforts might not be desirable, this kind of consideration has received little attention with existing organizational structure.

The creosote contamination of ground-water supplies in St. Louis Park provides an example of a management problem that could require extensive coordination between agencies. Both the Department of Health and the Pollution Control Agency are involved in quality considerations, with the former being principally concerned since a major domestic water supply resource is involved and the latter because of its charge to control and abate pollution of waters of the state. However, the solution to the problem could very well involve restriction of appropriation permits, a DNR responsibility, in a zone surrounding the contaminated area. Though DNR cooperation would likely not constitute a problem, administrative efficiency would likely be hampered by the absence of a single administrative entity with final decision-making authority.

The MPCA has no written policy on diverting effluent discharges. However, diversion is encouraged whenever feasible to reduce treatment costs in protection of lake quality. This diversion of effluent discharges can potentially impact water quantity, as well as quality, by changing the distribution of stream flows. The practice of adjusting effluent standards to give dischargers credit for water conservation is employed by the MPCA only when absolutely necessary.

Many well interference disputes result from interaction of high capacity wells with wells constructed to protect ground-water quality, but not availability, under stress conditions. The Water Well Construction Code sets standards protecting quality, but does not adequately address the issue of quantity.

The conflict resolution authority of the Water Planning Board derives from its charges to direct water planning activities and coordinate public water resources management. Its involvement in conflict resolution has largely focused on definition of state water policies concerning interstate and federal planning activities. However, the WPB has little direct authority to resolve water management conflicts, other than through coordination of activities and its planning process. As a result, the WPB's efforts in conflict resolution have been directed toward the development of mechanisms to avoid and/or resolve future conflicts.

The Water Resources Board conflict resolution process involves intervention upon petition into cases where apparently conflicting statutory policies may require resolution. Disputes of this kind have tended to concern the validity of specific permit decisions by state agencies acting under statutory direction or administrative regulation. The resolution of these disputes may also be provided via hearings under the Administrative Procedures Act (Minnesota Statutes, Chapter 15). Since its creation in 1957, the WRB has become involved in 11 conflict resolution proceedings.

Of the three forums for resolution of private-agency conflicts, the environmental petition process of EQB, the intervention process of WRB, and the hearings process of the Office of Hearing Examiners, only the latter two appear to overlap significantly. The Water Resources Board process addresses the apparent conflicts between statutes, but such conflicts have manifested themselves in the agency permit proceedings which the hearing examiner process also addresses. In addition the WRB process does not provide permanent solutions to conflicting statutes, a responsibility only the Legislature can meet. This leads one to the conclusion that this process might be logically combined with water planning and policy development functions. These are currently the responsibility, on an interim basis, of the Water Planning Board and, on a broader environmental basis, of the Environmental Quality Board.

The EQB has the most explicit authority in the area of interagency conflict resolution but has used it only once, in part because of its preoccupation with more visible issues. The Water Planning Board's authority emphasizes development of policies to address and minimize conflicts, but does not enable it to direct the

resolution of conflicts. The Water Resources Board has proven ineffective in resolution of interagency conflicts, because of the reluctance of agencies to bring disputes to it. Analysis consequently indicates that consolidation of explicit interagency conflict resolution authority with the authority for water policy development and coordination would provide the best combination for addressing interagency conflicts.

The second set of options for improving accountability of water management at the state level revolves around identification of a means for assuring agency compliance with statutory requirements. The lack of an effective, systematic means for assuring agency compliance with the requirements of law is reflected in the number of legislative deadlines missed by state agencies involved in water management. Among the examples are:

- ** The failure of the Department of Natural Resources to develop a water conservation program (mandated in 1947), prepare a framework water and related land resources assessment (due in 1975), and to develop rules governing the water appropriation permit program (due first in 1975, but postponed to January 30, 1978);
- ** The failure of the DNR to promptly implement laws designed to protect or enhance the use of lakes, including the development of rules for lake improvement districts (due July 1, 1974), surface-use zoning, and appropriations from lakes;
- ** The failure of the Environmental Quality Board to complete and approve an inventory of power plant sites (required by 1976, and extended to January 1, 1979), although this task has been confounded by the DNR's tardiness in developing criteria for establishment of protected streamflow and lake elevation levels; and
- ** The failure of the Environmental Quality Board to prepare a long range plan and program for the implementation of state environmental policy in each even-numbered year as charged in Minnesota Statutes, Section 116C.07 (first due November 15, 1975).

While it is likely that many of these deadlines have been missed as a result of staff and funding shortages, conflicts in agency priorities, and unrealistic deadlines, the absence of effective program planning and evaluation linked to the budgetary process may play an important part in hampering efforts to address these problems. Therefore, a key option in improving water management is initiation or expansion of program planning and evaluation functions within each water management agency.

Enforcement. The ability of state agencies to enforce water management rules is a related issue of major significance. Enforcement problems are evident in a number of areas including:

- ** Regulation of water well construction. Since 1975, the rate of compliance by well drillers in submitting well records as required by law has been roughly 50 percent, with compliance in submission of water samples somewhat less. The Department of Health has been reluctant to employ its authority to revoke licenses for failure to comply with this law.

- ** Permit coverage reporting of withdrawals in the water appropriation permit program. Large-volume appropriators in at least one category, municipal supply, are without permits in some cases. An effective monitoring program through the Department of Natural Resources is absent.
- ** Abandonment of wells. The Water Well Construction Code stipulates procedures for the proper abandonment of wells, but there is no redress if procedures are not followed and no viable means of assuring compliance with the Code during abandonment.
- ** Administration and enforcement of shoreland zoning ordinances. Local units of government (counties and municipalities) are required to enforce minimum standards for the subdivision, use, and development of shorelands of public waters. Local administration and enforcement of shoreland ordinances vary considerably. The Department of Natural Resources appears to have no direct enforcement power, with its only recourse when violations are encountered being action in district court.
- ** The Pollution Control Agency construction grants program. The Legislative Audit Commission found that a significant number of projects funded under this program have had serious design or construction problems, but legal action has been pursued in only a few cases.

Analysis indicates that enforcement of state water management rules by state agencies is a major deficiency, with qualified staff and funding shortages contributing to the problem. Increased staff and funding is a major option in resolving this deficiency, although the initiation of program evaluation efforts by agencies may be equally important.

ii. Local Initiatives

Several state water management programs place great emphasis on implementation by local units of government. Examples include shoreland and flood plain management, feedlot and septic tank regulation, public waters inventory, non-point source management (e.g., land treatment), and wild and scenic rivers management. Local units of government are also given the option of participating in other state programs, including review of Department of Natural Resources works-in-the-bed and water appropriation permit applications, participation in pumping tests, well log verification, and Water Well Construction Code enforcement. In addition to these responsibilities, local units of government are authorized to carry out a wide variety of water management activities through soil and water conservation, watershed, and lake improvement districts, as well as other water management authorities.

Certain state-delegated or mandated tasks are accompanied by grants, such as through the Department of Health (Community Health Services Act), the Soil and Water Conservation Board, or the Department of Natural Resources. With the exception of the Community Health Services Act, analysis suggests little attention has been given to the burdens imposed on local government by the state in mandating administration of water and related land resources programs. Limitations in staff, expertise, and funding were consistently identified in the Water Planning Board's water management survey as significant problems in local implementation of state policies. In addition, state-imposed limitations on tax levies have compounded this problem by reducing local fund-raising capabilities.

Two approaches to facilitating local water management warrant consideration: (1) provision of a natural resources management fund and (2) more effective utilization of local water management institutions in state water management programs and planning. These approaches may be operated jointly.

The economic justification for a natural resources management fund lies in the benefits that would accrue to the state with more effective implementation and management of state water resources programs and policies at the local level. Identification of planning and management activities warranting state funding would be necessary. Those activities which would produce the greatest return on the state dollar in any given region would receive the highest priority. Consideration would also be given to criteria for allocating state grants among regions or local units of government. In line with the overall state "return-on-investment" criterion, such factors as the amount of shoreland requiring management, population growth, development pressure, and severity of resource problems might be considered. Extrapolating from experience with the Community Health Services program, program plans approved by the state and state program effectiveness monitoring would be required.

Administration of the natural resources management fund might be handled through the Water Resources Board, the Soil and Water Conservation Board, the proposed water resources coordinating body, the Department of Natural Resources, or the State Planning Agency. Administration of these funds would require assessment of the compatibility of locally-generated program plans with state plans and objectives, as well as determination of grants.

Both the Water Resources Board (through prescription of watershed district overall plans) and the Soil and Water Conservation Board (through plans of districts participating in its cost-sharing program) have existing means of oversight, but have less direct links to water policy and plan development. The Department of Natural Resources is directly involved with many of the water management activities that would be eligible for funding. The State Planning Agency's Office of Local and Urban Affairs administers similar funds in the form of planning grants and has demonstrated (through the Governor's Rural Development Council) the type of approach which might be employed to assure agency input to decisions. The water resources coordinating body selected by the Legislature could provide an effective forum for administering the fund, especially if the fund were expanded to cover a wide range of local initiatives envisioned by the proposed water management strategy.

* By necessity, more effective utilization of local water management institutions in state water planning and management is directly linked to the adoption of a natural resources management fund.

iii. Organizational Changes at the State Level

Organizational options relating to conflict resolution, water resources planning, quality-quantity management organization, and state oversight of local management institutions have been examined by the Water Planning Board.

The Water Planning Board has identified several programs which are separate from the agency whose principal charge relates to the functions these programs provide. In many cases, this division of responsibility or fragmentation has occurred with the intent of better serving other programs within a given agency (e.g., small stream flood investigation in the Department of Transportation), or

better serving an agency's constituency (e.g., pesticides control in the Department of Agriculture). The Water Planning Board has not evaluated the operations of these programs sufficiently to recommend program transfers at this time, but offers the following list for further executive and legislative review.

- ** The weather modification program in the Department of Agriculture is separated from the State Climatology Program housed in the Department of Natural Resources.
- ** The pesticides control program in the Department of Agriculture is separated from the water quality management program of the Pollution Control Agency.
- ** The Department of Natural Resources is charged with assessing lake improvement needs though most needs appear to be related to water quality.
- ** The water well construction code program located in the Department of Health has major importance as a water quality protection program but is separated from pollution control functions of the Pollution Control Agency.
- ** Regulation of the storage of liquids and gases underground is a program potentially affecting ground-water quality but is located in the Department of Natural Resources, since displacement of ground waters is also a concern.
- ⊕ The Pollution Control Agency program providing certification of federal actions (under section 401 of the Federal Water Pollution Control Act Amendments of 1972) has consistently involved MPCA certification of federal permit actions relating to filling of wetlands, an area in which the Department of Natural Resources has primary concern.
- ⊕ The U.S. Army Corps of Engineers "Section 404" permit program concerning wetlands filling overlaps with the public waters permit program for works-in-the-bed of public waters which is located in the Department of Natural Resources. This federal program could be transferred to the state for all but truly navigable waters, though federal review procedures would continue to apply on all permit applications and legislative changes to the public waters permit program might be required.
- ** The small stream flood investigation program of the Department of Transportation is separated from the hydrology and flood plain management programs of the Department of Natural Resources.
- ** The ambient water quality program of the Department of Transportation for assessing effects of highway construction and runoff on water quality is separated from the water quality management program of the Pollution Control Agency.
- ** Water quality monitoring programs of the Department of Natural Resources directed toward fishery management concerns are separated from water quality monitoring functions of the Pollution Control Agency.
- ** Water supply quality monitoring of the Department of Agriculture for dairy and packing plant operators is separated from water supply testing programs of the Department of Health.



- ** Power plant siting and energy needs certification programs are separated in the Environmental Quality Board and Energy Agency, respectively.
- ** The Minnesota Geological Survey has assumed an increasing role in the assessment of ground-water supplies in separation from quality programs of the Pollution Control Agency and quantity programs of the Department of Natural Resources. *and MDH*
- ** The State Soil and Water Conservation Board program for flood control assistance in Area II of the Minnesota River Basin is separated from the flood plain management program of the Department of Natural Resources. (Note: The proposed flood damage reduction grant-in-aid program of the Water Planning Board would be administered by the Department of Natural Resources in conjunction with the State Soil and Water Conservation Board.)
- ** The aquatic nuisance control program of the Department of Natural Resources permits the amount and type of chemicals used in aquatic plant control, but is separated from the water quality program of the Pollution Control Agency and the pesticides control program of the Department of Agriculture.

Conflict resolution. Two alternatives are available to the state in dealing with the problem of water policy conflict resolution. The first alternative is to maintain the specific conflict resolution function within the Water Resources Board, but with certain modifications in law to assist the WRB in carrying out this function. The second alternative is to shift the water policy conflict resolution process entirely to the body also charged with water policy planning and development. This alternative would include the options of the Environmental Quality Board, a body modeled after the Water Planning Board, and a citizens board. (The Department of Natural Resources can be dismissed as an option since it could not be expected to represent the interests of other agencies unless these were transferred to it in a major reorganization.)

The existing Water Resources Board conflict resolution process requires a petition from an involved party to start an action. Thus, the WRB's scope of responsibility pertains only to existing conflicts. The WRB cannot address policy problems which appear likely to arise in the future but which might be avoided by present action, nor is it able to substantially affect the situation after the hearing process is concluded. Although binding determinations could assure impact after the hearing process, the value of this solution should be weighed carefully against the cost in terms of administrative efficiency and agency policy-making.

If conflict resolution authority is to be retained by the WRB, the Legislature should consider a more specific definition of the Board's role in water policy conflict resolution. This might include delineation of specific categories of conflicts in which the WRB might become involved; use of a state hearing officer and specifically defined quasi-judicial procedures; and imposition of binding determinations, sanctions, or other means of insuring that decisions are carried out. Alternatively, the WRB might be charged with providing annual reports to the Legislature containing proposed statutory modifications to deal with problems uncovered in policy dispute hearings.

Shifting resolution of water policy conflicts to the body also charged with water policy planning and development would be an effective means to link identification of conflicting statutory and program policies with development of new policies. The options for housing these combined functions include the Environmental Quality Board, Water Planning Board-model, and a citizens board.

The Environmental Quality Board might assume an expanded conflict resolution process under its current program review authority. This option would vest conflict resolution authority in a board composed of agency administrators and citizens, providing access to substantial technical expertise in water management. In addition, the involvement by top agency administrators would increase the likelihood of implementing the Board's decisions within agencies.

The Water Planning Board-model option would place the water policy conflict resolution function in a multi-agency water-oriented board. Use of this type of body for water policy conflict resolution would have advantages of an ongoing direct focus on water resources planning and policy development, areas closely linked to water policy conflict resolution. In addition, it would also have access to technical expertise, staff support, and citizen input.

The citizen board option would provide a conflict resolution forum removed from narrow agency interests, but combined with comprehensive planning and policy development (in contrast to the existing Water Resources Board process). Such a board would have disadvantages in its lack of a positive forum for interagency

coordination, the possible difficulty in getting state agencies to participate in board functions and to comply with board determinations (which are problems with the current Water Resources Board process), and the possibility that a larger staff would be required for the board to actively pursue resolution of conflicts (since agencies seem less inclined to bring disputes to non-agency boards).

Water resources planning. The organizational options for housing comprehensive state water resources planning include the Department of Natural Resources, the Environmental Quality Board, an agency modeled after the Water Planning Board, and a citizens board.

The following requirements should be met by the entity carrying out policy planning and coordination functions. It should (1) provide a forum for representation of all major state water management agencies, (2) have authority and capability to develop comprehensive water-related goals and policies, (3) have authority to undertake and administer funding of water resources planning activities of an interagency nature, (4) have authority to determine which activities are of an interagency nature, (5) have authority to resolve conflicts in water policy, (6) have authority to represent the Governor on federal and interstate commissions relating to water policy planning, and (7) have authority to coordinate public water resources management activities of the state.

The Department of Natural Resources has been charged with the development of a framework water and related land resources assessment and with administration of a wide range of water management programs. However, the DNR lacks the means for providing a meaningful forum for representation of other major state water management agencies. In addition, in the past the DNR has not demonstrated the willingness to give systematic, ongoing long-range water planning sufficient priority to meet legislative mandates. For these reasons, the DNR is not an appropriate candidate for coordinating water planning, although it must play a major role in water planning.

The Environmental Quality Board (a board combining citizens and agency leaders) satisfies the criterion of providing a forum for representation of the major state water management agencies, though it does not include direct representation of either the State Soil and Water Conservation Board or the Water Resources Board. The EQB currently administers programs relating to water resources management through its environmental impact assessment process, program review authority, critical areas planning, power plant siting, environmental permit coordination, and environmental conflict resolution authority. The EQB is also charged with preparation of long-range environmental policy plans. Most EQB authority has been directed toward highly visible "firefighting" activities, such as environmental assessment and the siting of power lines and power plants. Long-range policy planning has not been effectively addressed by the EQB and there is an acknowledged tendency for this function to be given low priority in relation to its other more visible and pressing charges. The EQB does not currently have the staff technical capability to carry out the identified water resources planning and coordination functions, though it could develop this capability with the transfer of staff which has been directed by

the Water Planning Board. Whether EQB's primary environmental and firefighting focuses would tend to divert this staff from water planning charges, as has happened with its current long-range policy planning effort, is uncertain.

The Water Planning Board (a body composed of agency officials) was created on an interim basis and charged with preparation of this statewide water and related land resources framework plan by June 30, 1979. Among its other charges are coordination of public water resource management and regulation; assurance of participation of the public and all units of government in state water planning activities; direction of state involvement in federal water planning activities; evaluation of state participation in the federal-state river basin commissions; and evaluation of state laws, rules, and procedures in public water resources management.

Any body which retains these functions would satisfy the criterion of providing a forum for interagency representation of the major state water management agencies. A coordinating body chaired by an independent appointee of the Governor would provide a full-time, visible advocate on behalf of water resources with direct ties to the Governor. This person could serve as the Governor's representative on interstate basin commissions, direct state response to federal policy initiatives, and direct state pursuit and utilization of special funding sources.

The primary shortcoming of a body like the WPB with regard to the identified characteristics of the authoritative water planning body would be its insufficient authority to resolve conflicts in water resources management. As noted, the Board's authority is limited to coordinating public water resources management. In addition, should a coordinating body other than the EQB be designated to carry out the identified functions in an ongoing capacity, procedures for coordinating water resources and environmental policy planning and conflict resolution would need to be developed. One possible approach would be to authorize the head of the coordinating body to make recommendations the EQB for initiating and resolving policy conflicts.

A citizens board also warrants consideration as the body charged with directing state comprehensive water resources planning and policy development. The Southern Minnesota Rivers Basin Board provides an example of a citizens board with a similar charge. This board has functioned successfully, although with nearly complete reliance on staff of federal agencies. It has maintained close contact with the Legislature and has not been burdened by the conflicting charges facing agency heads participating on interagency boards. This has enabled the Board to propose and advocate, independently of narrow agency interests, such programs as the state pilot flood damage reduction grant-in-aid and forestry assistance programs. The Board has not been successful at getting commitment of time and staff by state agencies to its planning efforts despite legislative mandates to this effect. This raises questions concerning the ability of a citizens board to coordinate water resources management activities of the state. Other experiences with citizens boards in Minnesota such as the Water Resources Board, Pollution Control Agency Board, and the Metropolitan Council, might be drawn upon to design a board minimizing weaknesses.

Water quality-quantity management organization. Based on an in-depth analysis of water quality-quantity management interactions in Minnesota, five categories of management options have been identified for dealing with problem areas: (a) miscellaneous coordination options, (b) planning and budgeting approaches, (c) establishment of an authoritative coordinating body, (d) an incremental reorganization option, and (e) major reorganization. The goal to which each group of options is directed is the assurance that water quality-quantity management efforts work in concert.

The category of **miscellaneous coordination options** includes two approaches targeted on processes for solving specific, existing institutional problems. In general, these approaches should be used as an interim step or if the more detailed organizational and planning options are not implemented.

The first approach is an interagency agreement among the Departments of Natural Resources and Health, the Pollution Control Agency, and the Minnesota Geological Survey. Such an agreement would define clearly the lines of responsibility in ground-water management. Beyond this, the agreement could provide for interaction of field personnel in enforcement of ground-water management programs, acquisition of data by one agency for another, joint training of personnel where appropriate, and integration of quality and quantity monitoring sites.

The second approach also involves an interagency agreement. Such an agreement could be used to implement joint criteria, standards, and plans for identifying and managing ground and surface water during emergency or critical periods. In addition to the DNR, the MDH, and MPCA, the Division of Emergency Services would be involved in this agreement.

The options for **planning and budgeting** include mandating preparation of program plans annually, development of long-range plans, and linkage of these plans to operations through the budgetary process. Each of the agencies involved in water resources management—with particular emphasis on the Departments of Health and Natural Resources and the Pollution Control Agency—would be charged with preparation of program plans for submission to the selected coordinating body and the Legislature. The model for these program plans would be those currently prepared by the MPCA. The coordinating body would be responsible for identifying conflicts between programs or priorities and for assuring consistency with the framework plan. Upon development of more specific comprehensive or special purpose plans (e.g., the DNR water conservation program plan), consistency with those plans would also be required. Budgetary requests would be carried forward by individual agencies through program plans.

The **authoritative coordinating body** would satisfy the need for a single entity with final decision-making authority where two or more agencies have overlapping jurisdiction. If effectively implemented in conjunction with planning and budgeting options, the authoritative coordinating body would supplant more radical reorganization options discussed below. However, certain incremental reforms would also require coordination.

The options which should be considered to fulfill this function are the same as those noted to fulfill the water resources planning function—the Department of Natural Resources, the Environmental Quality Board, a citizens board, or a body modeled after the Water Planning Board.

The DNR is charged with the administration of a wide range of water management programs. It could be assigned the duty of assuring coordination of its programs with all other state water and related land resources programs. However, the DNR does not have authority to resolve conflicts among agencies and does not have a strong record in interagency coordination. The provision to a single agency of the authority to resolve disputes between it and other agencies raises serious questions of equity.

The EQB is presently charged with coordinating state programs it determines are interdepartmental in nature, as well as resolving agency conflicts with regard to programs, rules, and permits. It has not fully utilized this authority, however, due in part to its preoccupation with more visible environmental concerns.

A citizens board could remove the resolution of conflicts among agencies from the narrow boundaries of agency interests. However, the separation of such a board from agencies may make the achievement of interagency coordination difficult and increase the difficulty of achieving agency compliance with citizen board decisions.

The Water Planning Board has been charged on an interim basis with coordinating public water resources management and regulation activities, though it has not had the EQB's authority to resolve conflicts. A body modeled after the Water Planning Board would have the advantage of a direct focus on water resources, as opposed to the EQB's more general environmental focus.

Options characterized as the **incremental reorganization approach** include (a) placement of both the Safe Drinking Water Act and the Water Well Construction Code program of the Department of Health in the Pollution Control Agency and (b) placement of only the Water Well Construction Code program in the MPCA. The first option would create a "little Environmental Protection Agency" structure, facilitating state interaction with federal Environmental Protection Agency programs. It would solve one major problem identified in the management analysis: The separation of domestic supply-quality regulation from regulation of the sources of pollution. However, a significant problem would involve separation of the program regulating public water supplies from non-public supply regulation and other health programs (e.g., food sanitation inspection).

The option of placing only the Water Well Construction Code functions in the MPCA would avoid the separation problem mentioned above. On the positive side, this option would place a program with major pollution control functions in the MPCA, while at the same time fostering in the MPCA a more balanced focus between surface- and ground-water pollution control. The reception of this option by those most affected, the water well contractors, may bear heavily on the consideration of this option.

Finally, the **major reorganization** options would bring quality, quantity, and health aspects of state water programs together under the direction of a single agency. The three major options are:

- ** A Department of Waters. This option would involve an independent agency combining the present Pollution Control Agency, the Department of Natural Resources-Division of Waters, and the water well construction and safe drinking water programs of the Department of Health. This combination would (a) place all major water-related programs in a single agency, (b) keep all pollution control functions together (as air and solid

waste programs of the MPCA would be included), and (c) place greater emphasis on integrated water management. A major concern with this option is the absence of other water agencies capable of checking decisions of the single agency.

- ** An expanded Department of Health. All major ground-water programs might be combined in the Department of Health. The MDH would operate programs in water appropriation, ground-water hydrology, underground gas and liquid storage, ground-water pollution control, and ground-water quality monitoring under this option. Further, this option would place all water supply functions in the MDH, since splitting of surface- and ground-water appropriation permitting is untenable. The MDH option would maximize health goals but would not effectively address coordination with the surface-water quality programs of the DNR and the MPCA.
- ** A new "super" department. This option would combine the programs of the Department of Waters option with conservation programs in the present Department of Natural Resources. This alternative would result in nearly total integration of quality, quantity, and health-related programs with other natural resources conservation programs. Other states, including Wisconsin, have adopted this option with various degrees of success. A major question is whether such a department can be effectively administered.

State oversight of local management. A somewhat specialized question related to state-level organization is that of state oversight of comprehensive local water management authorities (e.g., soil and water conservation, watershed, and lake improvement districts). Organizational options for carrying out oversight functions include (a) strengthening the existing functions carried out by the Department of Natural Resources, the Soil and Water Conservation Board, and the Water Resources Board and (b) consolidating these functions in a single unit.

The option of strengthening existing arrangements for assisting local water management authorities and for assessing compatibility of local plans and projects with state policy and objectives would mandate that memoranda of understanding be adopted and areas necessitating interagency cooperation and exchange of information be clearly defined (along with procedures for their implementation). The principal advantages of this option are the strengthening of ties between existing agencies and their respective districts; an increased service function of state agencies, resulting in an increased input for local authorities in management of water resources at the state level; and, to the extent that the memoranda of agreement are successful, facilitation of a coordinated state approach to local comprehensive water management.

The primary disadvantages of the first option lie in the expense of administration and its failure to fully address at the state level the overlapping authorities at the local level. The expense of administration is likely to be higher than that of the second option because sharing of staff between agencies would likely be precluded.

The second option would consolidate state oversight of comprehensive local water management authorities in a single body. The essential requirement of this option is that representatives of the Soil and Water Conservation and Water Resources Boards and their constituencies be included in the governing struc-

ture of the new body. Location of the new body for administrative purposes might be most appropriately within the Department of Natural Resources, given its charges in comprehensive water resources management (although this warrants further examination).

The advantages of the second option include (a) reduced expense of administration of oversight functions, including consolidation of staff; (b) increased visibility of and emphasis on local authorities and opportunities for implementing water management programs; and (c) a unified state approach to and advocacy for comprehensive local water management. In addition, this option is likely to encourage coordination among local entities.

The disadvantages of this option principally concern the perceived weakening of ties between existing state bodies and their local districts. There must also be the recognition that a "forcing together" at the state administrative level will only begin to address problems with overlapping districts at the local level. Significant problems could initially develop in getting unified action from a diversely constructed board. In addition, inclusion of the Department of Natural Resources lake improvement district function in a consolidation of oversight functions would separate this function from the state's technical expertise in lake management (although a positive aspect would be equal access of the DNR and the MPCA in formation of lake improvement districts).

Summary. Organizational options at the state level have been described which relate to water policy conflict resolution, water resources planning, water quality-quantity interactions, and state oversight of local water management authorities. In some cases, sufficient information has been gathered to warrant recommendation of an action. In other cases, the magnitude of the issues and the available information on options are such that the Board is forced to suggest more thorough examination and, most importantly, full public debate of the options.

iv. Administration of Proposed Grant-in-Aid Flood Damage Reduction Program

In the "Flood Damage Reduction" section of this report, adoption of a statewide grant-in-aid flood damage reduction program is recommended by the Board. The four state agencies which might feasibly administer the program are the Department of Natural Resources, the Soil and Water Conservation Board, the Water Resources Board, and a body modeled after the Water Planning Board.

The Department of Natural Resources is currently the lead state agency in comprehensive flood plain management. The proposed grant-in-aid program would be compatible with the charges and goals of the DNR. In addition, the Division of Waters houses technical experts in water management and the DNR option provides for early detection of projects posing environmental problems. On the other hand, conflicts with DNR programs oriented toward preservation could pose problems to those favoring flood control with greater discretion at the local level of government.

The Soil and Water Conservation Board currently administers the pilot grant-in-aid program for a portion of the Minnesota River basin. Although the SWCB has experienced certain problems in program administration, there appears to be general satisfaction at the local level. In addition, the Board is responsible for recommending priorities for small watershed projects to the Soil Conservation Service; for dealing with soil and water conservation districts; and pursuant to



Minnesota Statutes, Section 40.02, for controlling floods and preventing the impairment of dams and reservoirs. Potential problems are that the SWCB may not be able to obtain the same level of technical support from the SCS in administering a statewide program and that it may be viewed as too heavily oriented toward rural/agricultural resource considerations.

The Water Resources Board is involved in flood damage reduction less directly, through its responsibilities for establishing watershed districts and for prescribing overall plans for watershed districts. The Water Resources Board's limited staff, reduced working relationships with the DNR, and legislative charge bring into question its capability to aggressively administer the grant-in-aid program. In the latter instance, while the Board's enabling legislation deals with flood control, its existing conflict resolution charge may require that it remain an independent, impartial agency.

A final option would entail giving administration of this program to a body patterned after the Water Planning Board. The duties of the Water Planning Board have led it to deal with development of flood damage reduction programs. However, the WPB has emphasized coordination of resource management programs, not direct administration of programs. Assigning a resource management program such as the flood damage reduction grant-in-aid program to a body like the Board would represent a major departure from the Board's previous emphasis.

In the consideration of each of the options, it should be noted that the grant-in-aid program would be targeted on small flood damage reduction projects (e.g., less than \$1 million total present value), with major projects funded through

separate legislative action, and various independent or companion non-structural measures. It should also be recognized that the Department of Natural Resources would continue to exercise authorities relating to public waters permits and flood plain management regulations, necessitating a close working relationship with the DNR if an option other than the DNR is selected to administer the program.

(2) The Role of the State in Water Resources Planning

The state maintains three major roles in water resources management: protector, developer, and allocator of water resources. As protector, the state has instituted major programs to manage water supply, water quality, and related land resources. As developer, the state has programs to assist in provision of flood control, wildlife and natural areas, and parks and other recreation areas. The state's role as an allocator of water resources has included programs to manage appropriation of water and access to water amenities.

Each of the state's three major roles in water management might benefit from the support and guidance which could be provided through water resources planning. Therefore, it is important to focus on four central issues: Should the State of Minnesota remain involved in water resources planning? If so, what form should the state's water planning effort take? What kind of organizations should be involved in water resources planning? and, How can the state improve citizen relations and facilitate citizen participation in development of water resource policy?

A. State Involvement in Water Resources Planning

By definition, planning involves taking present actions to prevent future problems. Planning functions which could benefit the State of Minnesota—but which are often not being provided—include:

- ** Anticipation of short- and long-term ^{needs and} demands for the state's water resources;
- ** Development and maintenance of explicit, comprehensive water-related goals to reflect overall state needs and citizen desires;
- ** Coordination and integration of the policies of state agencies involved in water resources management;
- ** Assurance of actions compatible with framework plans and resolution of differences through evaluation of proposed actions;
- ** Advocacy of policies and programs;
- ** Development and maintenance of a forum for participation in planning and management decision-making by citizens and interest groups; and
- (**) Establishment of a process to integrate local and regional water and comprehensive planning with state plans.

The advantages of state commitment to accomplishing these functions would be development of coordinated, prospective management of water resources by the state, and the encouragement of the same by other levels of government. Certainly, coordination with federal agencies would be improved so that federal agencies would understand what the state wants and where it wants to be in the future. Also, regional and local agencies would better understand the necessity

of state actions, be able to anticipate and influence these actions, and would know how and where to communicate problems and request assistance of state agencies.

✓ The Legislature would, likewise, be able to anticipate the staffing needs of state agencies, and would better understand where all the various requests fit into the overall picture—if they do. Legislators would also have close at hand a good yardstick by which they could measure and assess agency performance. Such plans, when refined and made specific through program and budgetary planning, would serve implicitly to set priorities between programs of the various water-related disciplines.

The disadvantages of such a state commitment would relate to the expense of maintaining qualified technical planning staff, the effort necessary to obtain full commitment and participation by administrators and managers, and the initial costs of setting up procedures for integrating water planning with program and budgetary planning, essential to assure commitment and implementation of the state water plan.

B. The Form of the Water Planning Effort

Each of the state roles in water management requires the support and guidance of certain levels of water resources planning. These levels include (a) broad statewide framework studies; (b) detailed sub-state planning; (c) single-purpose and project planning; and (d) short-range or crisis studies.

Broad statewide framework water planning is presently being carried out by the Minnesota Water Planning Board on an interim basis. Planning at this level is concentrated on identification of resource problems, demands, and supplies on a statewide basis for use in setting state priorities, evaluating and developing water policies (and establishing procedures for implementing policies), coordinating agency efforts, involving citizens in decision-making, and communicating results of water management plans.

Detailed sub-state planning involves systematic consideration of alternative ways for meeting projected water demands and solving water-related problems associated with river basins or other regions. This level of planning should utilize the policies and procedures and follow the priorities developed through framework planning efforts, where they exist. This would assure that plans and projects identified for specific river basins will reflect overall state needs and priorities. Thus, the situation can be avoided where those basins with completed plans get the greatest share of limited state dollars, simply because they were ready first and not necessarily because they had the greatest need. The Southern Minnesota Rivers Basin Board has been responsible for guiding a comprehensive sub-state water resources planning effort in the Minnesota River basin and in the southeastern watersheds tributary to the Mississippi River. The administration and staffing of this effort has been directed by the U.S. Soil Conservation Service.

Single-purpose or project planning is directed at solving specific water management problems. Coordination of each of these with comprehensive framework and sub-state planning is necessary to assure that state policies are implemented and priorities followed. The need for this is evident in planning for a single flood control project in which the state has an interest in assuring that its

resources are wisely utilized. A similar need exists in single-purpose planning for such areas as water supply management. This planning involves consideration of overall resource adequacy for absorbing proposed and projected water appropriations. The pressure in such considerations is to make decisions based on short-term resource capability with little regard for long-term cumulative needs and effects. These effects may go beyond impacts on water availability to related impacts on water quality and land use. Coordination with comprehensive plans is designed to place such impacts and resource management decisions into perspective.

Short-range or crisis water planning studies constitute the fourth level of planning that might be conducted by the state or its subdivisions. This level of planning may be associated with flood or drought, or any major unanticipated water use. It is essential in conduct of such studies to have a well-defined body of policies and framework of reference by which to evaluate impacts and proposed actions. One example of this level of study is contingency planning required of surface-water appropriators. While the state has not conducted contingency planning of its own in the appropriation permit program, it has conducted similar studies through its environmental review process.

Each of these levels of planning is being or has been conducted by the state. However, state efforts have been incomplete, uncoordinated, and sporadic. With completion of the initial framework water and related land resources plan by the Minnesota Water Planning Board, the opportunity will exist to put into effect a coordinated, prospective planning function serving a wide range of interests.

C. State-Level Organizations for Planning

The planning functions and levels of planning needed to support the state as protector, developer, and allocator of water resources indicate a requirement for two kinds of water planning organizations: an authoritative coordinating body and individual water planning units located in the major water management agencies.

An authoritative coordinating body is required to provide planning functions which clearly cut across state agency lines, such as in (1) integrating efforts in determining short- and long-term demands on water resources in the future, (2) developing and maintaining comprehensive water-related goals and policies, (3) coordinating actions of water management agencies, including resolving conflicts between these agencies, (4) integrating water goals and policies with those of other disciplines, (5) communicating state plans to citizens and other levels of government, (6) integrating plans of local and regional governments into state plans, and (7) recommending adoption of water policies and programs by the Legislature.

Individual water planning units also need to be established in the major water management agencies. These units would concentrate on planning functions primarily directed at supporting agency water management programs. These functions would include such tasks as assessing water availability for demand-supply comparisons, translating overall state water policy and goals to program objectives, assessing effects of these policies on program operation, and monitoring effectiveness of water management programs and policies in satisfying water demands and solving water problems. Findings of program and policy shortcomings must be communicated back to the coordinating body.

D. Citizen Participation in the Development of Water Policy

A survey of water managers by the Water Planning Board found significant and sometimes major problems in the way citizen participation is pursued in state water resources management. One need only read the newspapers to learn of major problems encountered in state water management programs because of inadequate citizen relations. The thesis of this section is not that effective citizen participation can make citizens like state programs they would not otherwise like, but that such an effort can provide better understanding and appreciation of the purposes of state water management activities by citizens and a better understanding and appreciation of citizen concerns by water managers.

As might be expected, the survey identified the most significant problems in citizen relations as occurring with land-use-related water management programs. Major problems were identified in programs for siting hazardous waste disposal facilities; inventorying public waters; and critical areas, coastal zone, and wild and scenic rivers management. The last three of these programs generally experience problems with citizen perception of the program as usurping local authority. In coastal zone management, citizen relations were a major factor in stopping a program with many potentially significant local benefits.

Short of stopping state water management efforts, failures in citizen participation may have negative effects on overall agency posture, as well as on related programs. For example, adverse citizen reaction to the DNR was cited as causing initial problems in perception of the natural areas program (though these appear to have been cleared up through informational meetings). More significant is the possible effect of causing agencies to act tentatively and inconsistently in their water management activities across the state. Although several factors distinguish the programs, an interesting illustration of this might be a comparison of the DNR's public waters inventory program with the MPCA's effort to identify Class "D" quality waters.

It was considered beyond the scope of the management analysis to analyze citizen participation programs of the state in greater detail than this brief introduction represents. However, it is possible to cite several observations relating to water management program needs in citizen participation: (1) the expectations and limitations of citizen input should be defined for each program, (2) major target groups should be identified for inclusion into the citizen participation effort, (3) the type of effort(s) most suitable for each program should be selected with thought to how lines of communication can best be developed, (4) provision should be made for periodic program review and evaluation for each stage of project development. In addition, it has been observed that effective citizen participation programs generally work best when the public has a perceived ally or facilitator removed from the pressures of program management, who serves as a full-time coordinator of all such agency programs.

The Water Planning Board has utilized a citizen participation process involving a statewide Water Interests Advisory Committee, a series of citizen meetings at the start and draft final plan stages, and a regional forum of citizen committees organized by regional development commissions. The Water Interests Advisory Committee offers a good forum for focusing citizen participation efforts in comprehensive water resources planning. While this forum has not yet been fully developed, a process could be envisioned where the Committee would take the initiative in aggressively pursuing citizen input on such major projects as the Upper Mississippi River Master Plan and development of various sub-state water plans.

(3) Water Management at the Regional Level

Two major issues must be addressed in assessing water management at the regional level. They are: What water management functions should be carried out at the regional level? and, What organizations should be assigned the responsibility for carrying out these functions?

A. Regional Level Functions

Three functions were identified as possible regional responsibilities in water resources management: (1) serving as a forum for citizen participation in state water planning programs, (2) coordinating local water management efforts with state programs and regional needs through comprehensive regional planning, and (3) administration of regionwide water management projects.

A regional forum for citizen participation in state water planning programs is currently utilized in two major state efforts. These are the water quality management "208" planning program of the Pollution Control Agency and the framework water and related land resources planning program of the Water Planning Board. The regional organizations carrying out this function are the regional development commissions. The RDC's have organized citizen committees to review and comment on informational packages of the MPCA and on technical reports of the WPB. The regional goal of these efforts is to ensure that regional and local viewpoints are incorporated into both state plans.

The RDC's responding to the Water Planning Board's Water Management Survey indicated concern that the State Water Quality Management Plan would not adequately reflect regional considerations. Skepticism was also expressed that the citizens committees were only being utilized in the "208" effort for appearance's sake. Many commissions tend to feel that in any balancing of state versus regional interests, regional interests will inevitably lose out. No regional concerns were expressed with the WPB framework water planning effort although this could be attributed to the timing of the Board's survey.

From the state perspective, this regional function has served positively in communicating the views of both regional governmental units and citizens. This conclusion stands for both the water quality management and framework plan programs. Problems indicated by the regions may stem in part from the large volume of technical material they have been expected to review, the lack of attention given by state planners to concise presentation of this material, and the possible failure to adequately define the boundaries of the process.

The regional coordinating and comprehensive planning function concerns the needs (1) to establish regionwide priorities for proposed water management projects which may receive state or federal funding, (2) to ensure that these priorities are compatible with existing water resources plans for the area, and (3) to ensure that these plans and priorities are coordinated and compatible with comprehensive regional plans. These needs would be facilitated by an active citizen participation program at the regional level. Satisfying these needs at the regional level would assure coordination of locally-designed projects at some sub-state level, as well as set priorities at the regional level. The integration of activities targeted at solving or reducing water management problems with activities targeted at other resource areas, such as land use and transportation, would also be well served by this regional function.

With respect to the proposed statewide grant-in-aid flood damage reduction program, regional screening of projects would reduce the possibility that local units would have to commit resources to project evaluation without prior indication as to whether a project might receive state funds. Also, depending on the degree to which this regional function is considered desirable, recommended priorities could be made advisory or binding on the state or specific water management programs.

The third regional function is administration of regionwide water management projects, particularly for flood damage reduction. A regionwide project may be defined as one which has hydrologic impacts occurring geographically in more than a single local unit of government, or one that requires dealing with a flooding problem systematically in more than one administrative area. This type of project is exemplified by the Area II Region of the Minnesota River basin. Currently, regional decisions on such projects are made by the Area II Minnesota River Basin Projects Incorporated, a flood control corporation representing a ten-county joint powers board.

The Area II regional authority is responsible for the following operational requirements related to flood damage reduction projects: (1) submission of requests for grants-in-aid for specific projects, (2) demonstration that the proposed projects are consistent with plans for flood plain management, (3) conduct of comprehensive evaluations of the positive and negative environmental effects associated with the project (with the assistance of a state engineer), (4) assumption of responsibility for project operation and maintenance, (5) assumption of responsibility for the acquisition of lands and rights-of-way required for the projects, and (6) securing of the necessary financial obligations from participating counties to meet the regional/local cost-sharing requirement of the program.

The requirement of plan consistency is needed to ensure conformity with Minnesota's Flood Plain Management Act. Requirements relating to project operation and maintenance, land rights acquisition, and financing have traditionally been carried out by project sponsors of federal and state flood damage reduction programs. Assignment of these requirements to a higher level of government would represent unnecessary interference and would reduce the incentive of regional sponsors to develop economically efficient projects. Assignment of certain requirements by the regional sponsor to local units of government could also be considered (e.g., responsibility for operations and maintenance, land right acquisition, and so forth). However, determination of regional project priorities and submission of requests for state grants-in-aid would necessarily remain regional requirements. The responsibility for project evaluation rests to some extent at all three levels of government. Depending on the degree to which the regional role is necessitated by hydrologic factors, project evaluation could rest principally with state and local levels. The regional role would focus on assisting local units in meeting state requirements and on integrating local plans into a coordinated and comprehensive plan. The regional role in setting project priorities would also necessitate project evaluation at this level.

B. Responsible Regional Organizations

Four types of regional authority are considered potentially feasible for carrying out identified regional functions. A fifth type of authority, the Metropolitan Council, is considered an appropriate candidate in the seven-county metropolitan area exclusively, but is not addressed separately from RDC's. The four types of

authority include regional development commissions, water management boards similar to the Lower Red River Water Management Board, boards similar to the Southern Minnesota Rivers Basin Board, and joint powers agreements between counties.

Regional development commissions were established in Minnesota under the authority of the Regional Development Act of 1969 (Minnesota Statutes, Sections 462.381-462.396). The twelve regional development commissions cover the entire state outside the jurisdiction of the Metropolitan Council. Four mandatory responsibilities given RDC's include: (1) development of a comprehensive plan for the region in cooperation with subregional planning agencies, the State Planning Agency, and local units of government, (2) review and comment on long-term comprehensive plans of local governments within the region, (3) review of plans of independent boards or commissions within the region and the authority to suspend plans which conflict with the regional plan, and (4) review and comment on applications of governmental units for loans and grants from the state or federal government.

In addition to these mandated responsibilities, the Act authorizes the RDC's to engage in other activities, including the conduct of research, development of regional information and data collection systems, provision of technical assistance and services to local units of government, coordination of civil defense and flood plain management, participation in proceedings of the Minnesota Municipal Board, and designation of its members to serve without a vote on any other multi-jurisdiction planning board or council within the region.



Regional development commissions have broad powers to raise revenues with each RDC having access to three sources of funding: (1) the commissions are authorized to levy a property tax in the region of no more than one-sixth of one mill; (2) in anticipation of collection of taxes, the commissions may borrow money on a short-term basis; and (3) the commissions may have access to various federal and state planning grant programs and to the regional and local assistance fund of the State Planning Agency (the State appropriation in support of regional development commissions was approximately \$2 million in FY 78-79).

Despite the broad planning powers of the RDC's and their ability to raise funds by a variety of means, the operational requirements for administration of region-wide projects do not appear to be consistent with the objectives or capability of the RDC's. Specifically, the RDC's have little expertise in resource management; they are not currently authorized by law to undertake specific natural resource-related projects; and their boundaries do not in general coincide with any single watershed or group of watersheds in the state. Regional development commissions do have major assets that could be effectively utilized in setting regional priorities: the mandates to develop a comprehensive regionwide plan and to assure compatibility of plans of local independent boards, and the statewide coverage provided by commissions.

The institutional structure currently being utilized in Area II of the Southern Minnesota Rivers Basin in conjunction with the pilot grant-in-aid program is a ten-county joint powers agreement. The authority for joint exercise of powers is contained in Minnesota Statutes, Section 471.59. The statute authorizes cooperative exercise of any power common to the governmental units entering into an agreement. Joint powers agreements must state the purpose for which joint powers will be exercised. Since there are no other limitations on the specific objectives for which these agreements can be used, joint powers agreements represent a comparatively flexible type of institutional structure. While joint powers boards have no specific authority to tax, the law permits the parties to such an agreement to make disbursements from public funds to achieve the objectives of the agreement. Thus, the ability of a joint powers organization to raise funds is limited only by the taxation powers of the individual members.

Joint powers agreements between counties are not considered suitable for carrying out regional citizen participation and coordination functions, since these require permanent, ongoing organizations. This organizational alternative is considered feasible for administration of regionwide water management projects, however.

The advantages of joint powers agreements, flexibility of structure and ease of access to member funds, must be weighed against several disadvantages. The first is that joint powers are relatively fragile institutions whose stability depends upon the ongoing agreement of all members. In that respect, it would be difficult to work out cost allocation arrangements acceptable to member governments. The Area II corporation experienced difficulties in this, but did arrive at a formula satisfactory to all members. A second disadvantage of joint powers agreements is related to the assumption of liability required in regional cost-sharing of approved water management projects. Since there is no statutory requirement that joint powers agreements be maintained in perpetuity, the state would need to ensure that the terms of the initial agreement would require members to meet ongoing responsibilities for operation and maintenance of constructed projects.

If this is not done, the state could be forced to assume this responsibility should the agreement be terminated during the operational life of a project. The Area II corporation has circumvented this difficulty by transferring the responsibility for operation and maintenance of completed projects to counties or other local governments.

Water management boards are a variation of the joint powers agreements discussed above. The major distinctions are that they are composed of watershed districts and have independent taxation power. The only such board currently in existence in Minnesota is the Lower Red River Water Management Board. Under Chapter 172 of Laws 1976, member watershed districts were empowered to levy an ad valorem tax of two mills or less on each dollar of assessed taxable property for the construction and maintenance of projects of common benefit to the districts. The Act also permitted the Board to institute joint projects and enter into agreements with the State of North Dakota and the Province of Manitoba to assure integration of its projects with purposes of the governments.

The chief advantages of water management boards patterned after the Lower Red River Board are: (1) greater familiarity with water resource-related problems; (2) geographical boundaries that conform closely with actual watersheds, (3) specific taxation authority of member districts for water-related projects, and (4) statutory recognition of the prototype board.

Clearly, this structure could not be employed in carrying out regional citizen participation and comprehensive plan coordinating functions, without major changes in regional government and existing regional planning charges. Water management boards are, however, considered suitable for administration of regionwide projects for the reasons listed above. A significant drawback of the water management board concept is that, unlike counties, watershed districts have not been organized for the entire state. However, it should be noted that (1) most portions of the state subject to severe flooding are already organized in watershed districts, and (2) legislation providing for the establishment, purpose and governance of watershed districts is currently in existence under Minnesota Statutes, Chapter 112.

A fourth alternative for carrying out identified regional functions is the river basin board. The model for this concept is the Southern Minnesota Rivers Basin Board, the statutory authority for which is contained in Minnesota Statutes, Chapter 114A. The Board was established to serve as the regional organization for guiding the creation and implementation of a comprehensive environmental conservation and development plan for the Southern Minnesota Rivers Basin. Other powers and duties of the Board include: (1) adoption of planning guidelines and regulations designed to prevent the impairment or destruction of air, water, land, or other natural resources in the basin, (2) development and coordination of a system to enable units of government located in the basin to carry out those activities necessary to prepare a basin-wide plan, and (3) fostering and promoting the implementation of the plan by the various federal, state and local units of government in the area.

The Southern Minnesota Rivers Basin Board has been generally effective in meeting its primary statutory charge. However, significant drawbacks would be associated with the use of similar boards to carry out the operational requirements for administration of regionwide projects. These include the lack of tax-

tion powers and the lack of authority to undertake the construction of natural resource-related projects.

River basin boards provide an attractive alternative to regional development commissions for carrying out regional functions of serving as the forum for citizen participation in state water management programs and coordinating water-related activities with comprehensive plans. These boards would have advantages of alignment on a river basin basis, representation of both local and regional levels, and a focus on comprehensive water resources planning and management. The tie into planning and development of other resource areas such as energy, land use, and agriculture may be more difficult than would be the case with RDC's actually charged with comprehensive planning. Use of river basin boards may be especially appropriate for focusing state, regional, and local attention on the development of major river basin plans. As such, these boards would appropriately function to advise the state water resources coordinating body identified previously. (See conclusions concerning the role of the state in water planning.)

Regardless of the regional organization selected to carry out the functions discussed, two points must be accepted: (1) there must be two-way interaction between the regional organization and state-level organizations to assure communication and coordination among all parties and (2) further effort must be made to define how such interaction can most usefully occur and to refine current practices.

(4) Water Management at the Local Level

Most water-related problems in Minnesota have direct local impacts. Local units of government have an immediate interest in the resolution of these problems. Therefore, there is a legitimate reason for these units of government to continue to be directly involved in water resources management in Minnesota.

Numerous local units of government may be involved directly in management of water resources, including both general purpose units (counties, municipalities, and townships) and special purpose districts (watershed districts, soil and water conservation districts, lake improvement districts, lake conservation districts, water and sewer authorities, sanitary districts, drainage and conservancy districts, public drainage authorities, and county committees of the U.S. Farmers Home Administration and Agricultural Stabilization and Conservation Service).

As one might expect from this large number of authorities, several areas of overlap may be found. As a general rule, these appear to have resulted from legislative efforts to make the means of solving specific problems more readily accessible. Analysis of these overlapping authorities is focused on two general purpose units, counties and municipalities, and three special purpose districts, watershed districts, soil and water conservation districts, and lake improvement districts. In addition, discussion of drainage and conservancy districts, the forerunners of watershed districts, is also presented.

Two major issues relative to management of water resources at the local level by these entities must be addressed: Do overlapping authorities at the local level create problems in local administration of water resources management programs? Which local authorities should be eligible to participate in the proposed statewide grant-in-aid flood damage reduction program?

A. Overlap at the Local Level

Counties are authorized to pursue a wide range of health, safety, and general welfare objectives. They may construct and operate water control structures; undertake projects to change the course, current, or cross-sections of waters; and construct water and sewer systems for lake improvement. Counties have authority of eminent domain in specific circumstances for specified purposes, such as for acquisition of existing water control structures and construction of public drainage systems.

Counties may adopt ordinances, enact regulations, and issue permits relating to shoreland and flood plain management, water surface use, and works-in-the-bed of public waters, among other areas. They also have general *ad valorem* taxing authority subject to levy limits, except relating to lake improvement districts, and authority to assess property benefited by works of improvement relating to water resources.

Counties may play a special role in the formation of watershed districts, lake improvement districts, and public drainage authorities, including initiating or acting on the formation and appointing the managing boards of such districts. The specific involvement and function of counties varies in each instance, however. Counties also have major involvement in designation of public waters, shoreland management, and flood plain management, in conjunction with the DNR. Additionally, they may become involved in structural flood damage reduction, enforcement of water well regulations, and certain other health-related functions.

Municipalities perform many of the same functions with generally similar authorities as counties and, in addition, supercede the authority of counties within their boundaries. They have more specific authority than counties in certain areas, such as flood damage reduction, for which they may acquire lands by condemnation, build and maintain flood control structures, and assess taxes against benefited property owners at their own volition.

Soil and water conservation districts are generally authorized to protect soil and water resources and implement any necessary practices in the district to reduce and prevent soil erosion, sedimentation, and agriculturally-related pollution in order to preserve natural resources, insure continued soil productivity, control floods, prevent impairment to impoundments and reservoirs, preserve wildlife, and maintain navigability of streams and harbors. The SWCD's are given only limited authority to implement practices and projects, however. Except through authority shared with counties or other units of government, districts are limited to development of projects and initiation of works on a strictly voluntary basis. SWCD's are governed by elected supervisors. Districts presently blanket the state.

SWCD involvement in water management programs has traditionally focused on application of land treatment measures and development of conservation plans for management of soil and water resources. This role has been expanded recently with initiation of the State Cost-Share and Demonstration Erosion Control program for application of land treatment practices. SWCD's have played a new role in assessment of sources of non-point pollution as part of the state's Water Quality Management (208) Planning effort. Districts have also recently ac-

quired important functions in conjunction with regulatory programs of the Department of Natural Resources. They are authorized to advise the DNR on irrigation soil suitability and compatibility with SWCD long range plans, assist in the conduct of pumping tests, and advise the Department on water appropriation and public waters permits. Districts also may be involved in assisting counties in public waters identification and in serving on hearings units charged with resolving disputes in public waters designation.

Watershed districts are authorized, generally, to conserve natural resources through "land utilization, flood control, and other needs based upon sound scientific principles for the protection of public health and welfare." They may be established for such purposes as flood damage reduction, drainage and navigation improvement, reclaiming or filling wetlands, providing and conserving water supplies, providing for sanitation by regulating the use of streams for waste disposal, control of soil erosion and siltation, and regulating improvements by riparian landowners affecting the beds and shores of lakes, streams, and marshes. Their charge thus includes nearly every phase of water resources management. Watershed districts are also given a wide range of authorities in areas of regulation, permits, ordinance adoption, and initiation of works of improvement. These authorities are often qualified and in some cases made subservient to other units of government (counties and municipalities, especially in the area of ordinance adoption). Watershed districts have authority of eminent domain, taxation, and assessment, though each is qualified by certain conditions. Watershed districts are governed by appointed boards of managers. With occasional exceptions, they follow natural watershed boundaries. Watershed districts are formed upon petition to the Water Resources Board and currently cover less than one-third of the area of the state.

Watershed districts are currently involved in a variety of water management activities, reflecting the full spectrum of authorized functions. The activities of a given district vary according to its location and needs perceived by the board of managers. These activities may range from provision of flood control and management of drainage systems in both urban and rural settings, to regulation of various related land resource activities. In many cases, watershed districts assume the function of meeting operational requirements of federal water resources projects, especially those for flood damage reduction. Watershed districts have not generally provided the systematic advisory and support services for state water management programs that SWCD's have. This appears largely attributable to their lack of statewide coverage.

Watershed districts are the "modern" version of drainage and conservancy districts, the latter authorized under Minnesota Statutes, Chapter 111, a statute first enacted in 1919. The purposes and authorities of each type of district are similar, though watershed districts appear to be potentially somewhat more comprehensive and flexible, with more powers and better access to funding. Only three drainage and conservancy districts still exist in Minnesota, having chosen not to take advantage of the improved watershed authority offered by Minnesota Statutes, Chapter 112. These three districts are each involved to some degree with the operation and maintenance of federal flood control projects. It is clear that the functions of these districts can be accommodated under Minnesota Statutes, Chapter 112, the "Watershed Act", and it is concluded that these districts should be required either to transfer their authority to this chapter or to

transfer ongoing maintenance responsibilities to the affected counties. Repeal of Chapter 111 is viewed not only as a step in updating state statutes, but as a move in the direction of reducing the various types of local districts involved in the management of waters.

Lake improvement districts are authorized, generally, to improve the natural character of lakes and shorelands by protecting lakes from the detrimental activities of man and from certain natural processes. While only two currently exist they may be formed by either counties or municipalities and given several of the authorities held by these units. Lake improvement districts may construct and operate water control structures, undertake projects to change the course, current, or cross-section of public waters, improve navigation and develop comprehensive plans to carry out these and other activities. They may exercise eminent domain only through counties or municipalities.

The overlapping authorities of these special and general purpose districts are evidenced in the summaries provided above. They include broad overlaps in flood damage reduction, drainage, shoreland management, non-point source pollution control, and nearly every other phase of water management. To a large extent, these overlaps may be seen as constructive, enabling districts to take advantage of their special authority or focus to implement and advocate proper management of water resources with specific areas of emphasis.

However, four general types of problems may be at least partially attributable to the overlapping of these authorities. The problems include shortages in qualified staff and resources to support this staff, problems with public awareness and perception of the various special purpose districts, inconsistent statewide coverage of water management authorities, and limitations to the fund-raising abilities of the various districts. Each of these problems was identified by local authorities in the Water Planning Board's water management survey. Most were also described by managers at the state level. Each of the problems may tend to be aggravated by the number of general and special purpose districts existing at the local level of government. Accordingly, it may be concluded that the state should study in depth the feasibility of organizational changes in water management authorities at the local level. Important study issues might include district relationships with counties and regional planning authorities; whether watershed or political boundaries should be followed; whether districts should be governed by appointed or elected managers; technical and administrative staff requirements; appropriate size; and the nature and extent of state oversight desirable.

B. Local Authorities in the Proposed Grant-In-Aid Flood Damage Reduction Program

In order to fulfill the local operation requirements of the proposed grant-in-aid program, local units of government sponsoring flood damage reduction must have the statutory authority to: (1) acquire lands, and secure easements and rights of way for the specific purpose of flood damage reduction, (2) construct flood damage reduction projects, whether or not these projects may be part of the areawide program, (3) raise funds for the purpose of flood damage reduction, by either (a) assessing benefited property owners on a project by project basis or (b) using existing forms of taxes generally utilized for local public works projects and (4) coordinate or direct the implementation of non-structural measures in conjunction with structural project components or, where structural measures are not proposed, independently.

Of the various types of local units under consideration (counties, watershed districts, soil and water conservation districts, and municipalities), watershed districts have the clearest mandate to carry out the above operational responsibilities. These powers are specifically granted in Minnesota Statutes, Chapter 112. Two problems are associated with assigning local operational requirements to watershed districts. Much of the state is not currently represented by watershed districts. Consequently, limiting local operational requirements to this type of body would lead to the temporary exclusion of certain areas of the state from the proposed program. The second problem is related to financial obligations that must be assumed by local units of government. While watershed districts have the power to levy taxes, existing tax limitations could in some cases hamper districts from raising the necessary revenues to meet the local cost-sharing requirement.

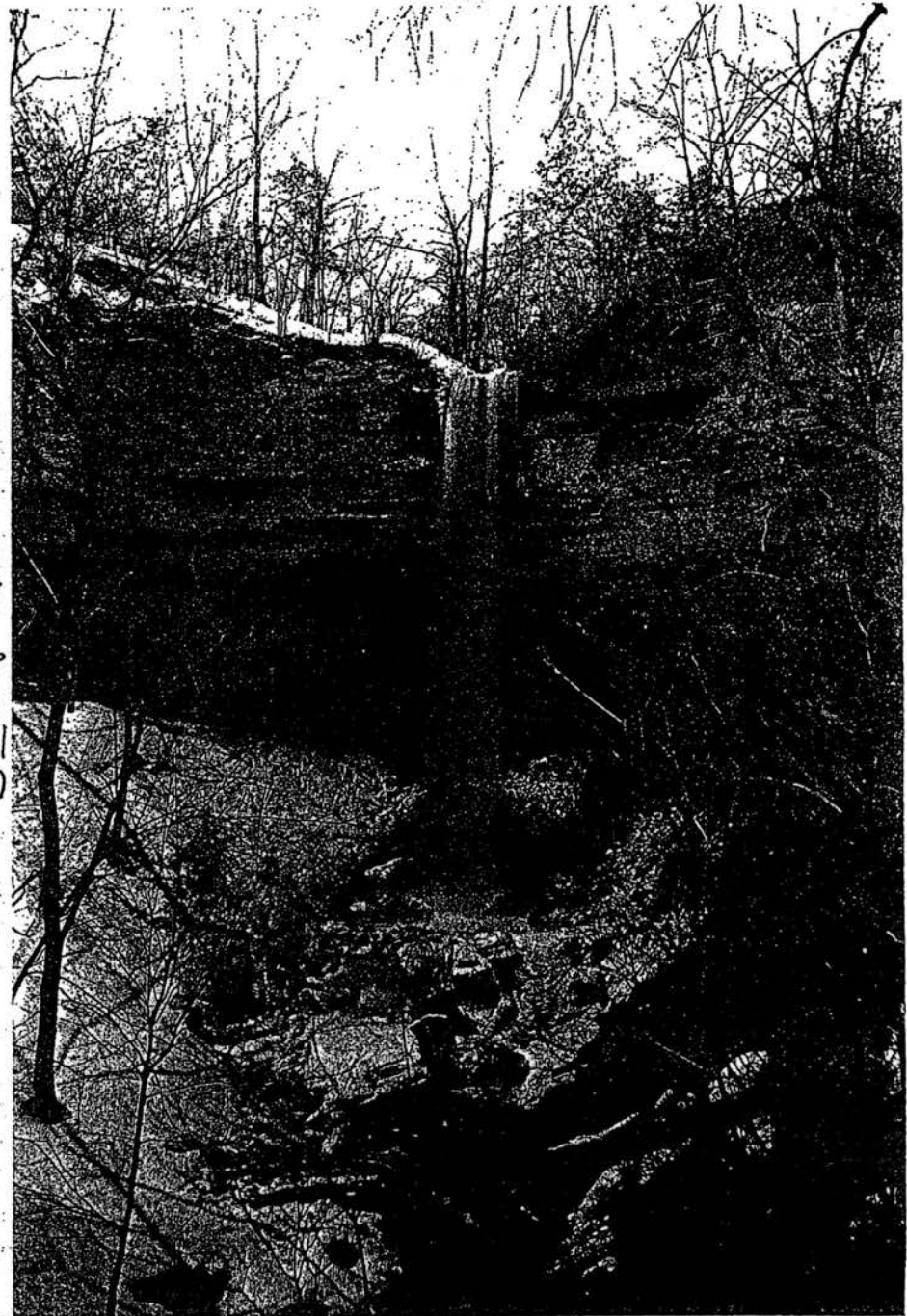
In fact, this problem does not apply to watershed districts alone, but may be viewed as a more general problem of government in carrying out local and regional operational requirements. For example, the Area II corporation has found it necessary to request that the Legislature raise the tax levy limitation in member counties in order to meet the cost-sharing requirements of the current program. The Legislature would have to confront this problem in considering any proposal to expand the current grant-in-aid program statewide.

Local operation requirements could also be carried out under joint powers agreements between soil and water conservation districts and counties. The joint powers structure would be required since neither soil and water conservation districts nor counties have all the powers needed to conduct local operation responsibilities. Under the joint powers agreement, the joint governing body would acquire from soil and water conservation districts the right to acquire land, easements, and rights of way, and to assess project costs against benefited property owners. Coupled with the more general authority of counties to levy taxes, these powers would then be sufficient to meet most local operational requirements of the program.

The shortcoming of this arrangement would be the lack of explicit statutory authority to condemn lands for the purpose of flood control, since neither counties nor soil and water conservation districts generally have this authority (counties may have such authority under Minnesota Statutes, Section 106.021 under certain circumstances). An advantage of this type of arrangement is the statewide coverage of soil and water conservation districts. However, the state would again need to ensure that the joint powers agreement contained provisions binding participants to meeting ongoing operational needs.

Municipalities would also be viable candidates for meeting local requirements in areas not covered by watershed districts. The authority of municipalities to acquire lands for the purpose of flood control, to build and maintain flood control structures, and to assess taxes against benefited property owners is contained in Minnesota Statutes, Chapter 429. One foreseeable difficulty would be that the effects of structures on flood flows often range beyond the area controlled by individual municipalities. In that event, however, a city could enter into a joint powers agreement with affected counties to obtain the needed coverage.

Supportive Documents: Technical Paper No. 5, "State Water Resources Program Inventory and Problem Identification"; Technical Paper No. 14, "Management Problems and Alternate Solutions"; and "Final Report of the Management Work Group."



when in conjunction with SWCD's
county authority under MS 40.072
possibly under MS 40.072(6)

**SUPPORTIVE DOCUMENTS AVAILABLE THROUGH
THE WATER PLANNING BOARD**

"Public Concerns and Issues—Recommendations for Consideration in the Framework Water and Related Land Resources Plan," Technical Paper No. 1, January, 1978.

"Water: Whence It Comes and Where It Goes (A Benchmark Report on Water Resources in Minnesota)," Technical Paper No. 2, July, 1978.

"Water Forecasting System for the State of Minnesota (Final Report)," Technical Paper No. 3, June, 1979

"Rural Water Supply Systems," Technical Paper No. 4, June, 1978.

"State Water Resources Program Inventory and Problem Identification," Technical Paper No. 5, August, 1978.

"Flooding and Flood Damage Education," Technical Paper No. 7, November, 1978.

"The Economic Impacts of Water Shortages and Water Allocation Policies," Technical Paper No. 8, October, 1978.

"Water Availability, Water Use, and Potential Conflicts," Technical Paper No. 10, January, 1979.

"Minnesota Water Quality: Management and Issues," Technical Paper No. 11, December, 1978.

"Water Conservation Methods for Irrigation, Agricultural Processing Industries and Domestic Consumption," Technical Paper No. 12, December, 1978.

"Toward Efficient and Equitable Water Allocation in Minnesota: A Report on Water Allocation Options and Approaches," Technical Paper No. 13, January, 1979.

"Management Problems and Alternate Solutions," Technical Paper No. 14, February, 1979.

"Water Appropriations in Minnesota—1976," Working Paper No. 1, March, 1978.

"An Analysis of Instream Flow Needs in Minnesota," Working Paper No. 2, October, 1978.

"An Evaluation of the Natural Ordinary High Water Evaluation in Minnesota Lakes," Working Paper No. 3, November, 1978.

"An Evaluation of Minnesota's Continued Participation in Federal-State Basin Commissions," Working Paper No. 4, December, 1978.

"Final Report of the Management Work Group," March, 1979.

"Final Report of the Data Work Group," February, 1979.

"Final Report of the Supply, Allocation, and Use Work Group," February, 1979.

PHOTOGRAPHIC CREDITS

Page Description

- 3 North Shore/Lake Superior Landscape
- 14 Lester River, near Duluth
- 15 Central Minnesota River Scene
- 16 Palisade Head, Lake Superior
- 19 Snow & ice on the North Shore
- 23 Cove near Split Rock, Lake Superior, ca. 1920
- 29 Barge traffic on the Mississippi, downtown St. Paul
- 31 Water pollution caused by sewage outfall, Upper Mississippi River basin
- 32 Drainage system outfall into the Cannon River
- 35 Abandoned mill on the Cannon River; the Cannon is being considered for "Wild and Scenic rivers" designation.
- 41 High water at Mantorville
- 42 Rescue attempts at Rochester during 1978 flooding
- 44 Plow ditcher operating near Madison, MN, ca. 1915
- 46 Wetland filling for urban construction in the Twin Cities Metropolitan Area
- 54 A 160-acre corn field near Rice, MN, irrigated by means of a center-pivot system
- 59 Extreme gully erosion caused by cropland water drainage
- 61 Beaver River, near two Harbors, MN
- 65 Fire Tug "Torrent", 1912, Two Harbors, MN
- 69 O.F. Doyle dredging outfit, from St. Cloud, digging a drainage ditch near Haggdenville, MN, ca. 1910
- 70 Log jam at Taylors Falls, 1886, illustrating a single dominant use of a river
- 80 Water pollution, filling, and misuse of wetlands, Twin Cities Metropolitan Area
- 84 Residential flooding
- 87 Snake Creek in Wabasha county, showing topography typical of southeastern Minnesota tributary streams and agricultural soil conservation practices
- 91 Fairy Falls, north of Stillwater, 1922

Source

Minnesota Historical Society
 Minnesota Department of Natural Resources
 Minnesota Department of Natural Resources
 Minnesota Historical Society
 Minnesota Historical Society
 Minnesota Historical Society
 USDA — Soil Conservation Service
 USDA — Soil Conservation Service
 Minnesota Department of Natural Resources
 Charles Wechsler

 Minnesota Historical Society
 Rochester Post-Bulletin
 Minnesota Historical Society
 Minnesota Department of Natural Resources
 USDA — Soil Conservation Service
 USDA — Soil Conservation Service
 Minnesota Historical Society
 Minnesota Historical Society
 Minnesota Historical Society
 Minnesota Historical Society
 Southern Minnesota Rivers Basin Board
 Southern Minnesota Rivers Basin Board
 USDA — Soil Conservation Service

 Minnesota Historical Society

March 2000



One West Water Street
Suite 200
St. Paul, MN 55107
(651) 296-3767
Fax (651) 297-5615

Field Offices

Northern Region:

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

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

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

Southern Region:

261 Highway 15 S.
New Ulm, MN 56073-8915
(507) 359-6074
Fax (507) 359-6018

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

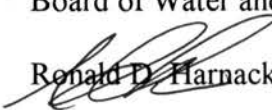
Box 267
1400 E. Lyon Street
Marshall, MN 56258
(507) 537-6060
Fax (507) 537-6368

Metro Region:

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

An equal opportunity employer

Printed on recycled paper

DATE: March 13, 2000
TO: Board of Water and Soil Resources Members, Advisors, Staff
FROM:  Ronald D. Harnack, Executive Director
SUBJECT: March 22, 2000 BWSR Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, March 22, beginning at 9:00 a.m. The meeting will be held in the BWSR conference room at One West Water Street, St. Paul. The following information pertains to the agenda items:

Consent Agenda

1. City of Eden Prairie Comprehensive Wetland Protection and Management Plan: The City of Eden Prairie submitted the Plan on February 7, 2000. BWSR staff and the BWSR Metro Subcommittee have reviewed the Plan and find it meets the plan requirements for local comprehensive wetland protection and management plan under the Wetland Conservation Act. DECISION
2. Red Lake County Request to Change Effective Date of Red Lake County's Local Water Plan: The Red Lake County Board of Commissioners have submitted a letter and resolution to BWSR requesting a change to the effective date of the county's comprehensive local water plan. The effective date of December 31, 2000, is inconsistent with M.S. 103B, subdivision 4, (A), (5). BWSR staff have reviewed the request and supporting documentation. Staff recommends that the Board accept Red Lake County's request to change the effective date of the county's local water plan from December 31, 2000, to December 31, 2001. DECISION

Committee Recommendations

Metro Subcommittee:

1. Minnehaha Creek Watershed District Boundary Change Petition: The Minnehaha Creek Watershed District filed a petition for a boundary change pursuant to Minn. Stat. 103B.215. The proposed boundary change includes land on the northerly edge of the International Airport, which is mostly under federal ownership. Camp Coldwater and the Highway 55 project are also in the subject area. Staff recommend the Board order a public hearing which would be presided over by the Metro Water Planning Subcommittee per the attached draft Order. DECISION

2. Comfort Lake-Forest Lake Watershed District Hearing: Columbus Township in Anoka County and Anoka County were not notified when the board held the establishment hearing for the Comfort Lake-Forest Lake Watershed District. The procedural deficiency occurred since the establishment petition did not include any land in Anoka County. However, after the establishment hearing the Metro Water Planning Subcommittee included a portion of Anoka County in the watershed district since the area was within the hydrologic boundary of the Comfort Lake-Forest Lake watershed. Staff recommend a hearing be held on the subject area per the attached draft order. DECISION

Old Business

1. Year Two Staff Grant Agreements with SWCDs for CREP Implementation: The CREP program is going great, in large part to the efforts of SWCDs. In 1999, the BWSR provided a grant to SWCDs for the first (of two) years of implementation. Staff recommend that the proposed grants (for the second year) be approved. DECISION
2. Update on Grazing Land Activities: Howard Moechnig will present an update of his activities since the CRP-RIM Pilot Project was completed. See attached. INFORMATION
3. Revisiting Reform Project: Ron Harnack will present BWSR's draft outline for the Revisiting Reform Project. See attached. DECISION
4. National Resource Inventory (NRI) Program Update: As mandated by Congress, every five years the NRCS conducts a natural resources inventory of America's non-federal lands. The most recent assessment, the 1997 National Resources Inventory, was recently released. The BWSR and other state agencies have used NRI data to implement a number of programs. Most recently, NRI data was used by the Environmental Quality Board in preparation of the Minnesota Water Plan 2000. The NRCS is preparing information on natural resource trends from the period 1982 to 1997. INFORMATION

New Business

1. Demonstration on Shoreland Guidebook Project: Sea Grant and BWSR staff will introduce the Minnesota Shoreland Management Resource Guide including a demonstration of the new web site and educational materials. INFORMATION
2. DNR/Waters "1999 Minnesota Project WET Facilitator of the Year Award" Presented to Kamal Alsharif – INFORMATION

If you need additional information, please feel free to give me a call. If bad weather conditions exist in your area and you are unable to attend the meeting due to travel restrictions, please notify the board office by noon on Tuesday, if possible. Travel safely. I look forward to seeing you on the 22nd!

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET, CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
MARCH 22, 2000**

PRELIMINARY AGENDA

9:00 a.m. Call Meeting to Order

Adopt Agenda

Minutes of February 23, 2000

Introduction of New Board Members

- Char Kahler
- Jack Frost

Reports

- Chair – Kathleen Roer
- Executive Director – Ron Harnack
- Dispute Resolution Committee – Jim Haertel
- Wetlands Committee – Darrell Bruggman
- Cost-Share/Soil Conservation Committee – Dwain Otte
- Education and Public Relations Committee – Paul Krabbenhoft
- Financial Oversight Committee – Ginny Imholte
- Administrative Advisory Committee – Kathleen Roer

Agency Reports

- Department of Agriculture
- Department of Health
- Department of Natural Resources
- Minnesota Extension Service
- Pollution Control Agency

Consent Agenda

1. City of Eden Prairie Comprehensive Wetland Protection and Management Plan – Doug Snyder – DECISION
2. Red Lake County Request to Change Effective Date of Red Lake County's Local Water Plan – Bill Best - DECISION

Committee Recommendations

Metro Subcommittee:

1. Minnehaha Creek Watershed District Boundary Change Petition
– Jim Haertel – DECISION
2. Comfort Lake-Forest Lake Watershed District Hearing – Jim
Haertel – DECISION

Old Business

1. Year Two Staffing Grant Agreements with SWCDs for CREP
Implementation – Greg Larson – DECISION
2. Update on Grazing Land Activities – Howard Moechnig –
INFORMATION
3. Revisiting Reform Project – Ron Harnack – DECISION
4. National Resource Inventory (NRI) Program Update – Susan
Ploetz, NRCS Resources Inventory Specialist - INFORMATION

New Business

1. Demonstration on Shoreland Guidebook Project – Marybeth
Block, BWSR, and Janell Miersch, Sea Grant – INFORMATION
2. DNR Project WET Facilitator of the Year Award – Kent
Lokkesmoe, DNR - INFORMATION

Advisory Comments

- Minnesota Association of Townships (MAT)
- Minnesota Association of Conservation District
Employees (MACDE)
- Minnesota Association of Soil and Water Conservation
Districts (MASWCD)
- Minnesota Association of Watershed Districts (MAWD)
- Natural Resources Conservation Service (NRCS)

Upcoming Meetings

- Next BWSR Meeting, April 26, 2000

Adjourn

Consent Agenda

1. City of Eden Prairie Comprehensive
Wetland Protection and Management
Plan - DECISION



Date: March 7, 2000

One West Water Street
Suite 200
St. Paul, MN 55107
(651) 296-3767
Fax (651) 297-5615

Field Offices

Northern Region:

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

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

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

Southern Region:

261 Highway 15 S.
New Ulm, MN 56073-8915
(507) 359-6074
Fax (507) 359-6018

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

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

Metro Region:

One West Water Street
Suite 250
St. Paul, MN 55107
(651) 282-9969
Fax (651) 297-5615

An equal opportunity employer

Printed on recycled paper

To: Board Metro Subcommittee

From: Douglas Snyder, Board Conservationist
Barbara Walther, Wetland Specialist

Re: City of Eden Prairie Comprehensive Wetland Management Plan

Summary

The City of Eden Prairie Comprehensive Local Wetland Management Plan (Plan) was submitted to the Board of Water and Soil Resources (Board) on February 7, 2000. The Metro Subcommittee of the Board reviewed the plan on March 7, 2000. Staff believes the Plan, in accordance with Minnesota Statute 103G.2243, Subdivision 3, meets the plan requirements for local comprehensive wetland protection and management under the Wetland Conservation Act of 1991.

The City of Eden Prairie adopted the ordinance to implement the Plan on February 1, 2000. The Plan became effective after the adoption of the Plan and ordinance into the official controls of the City. After the effective date of the Plan, the City shall make replacement decision consistent with the Plan.

The strength of the Plan is the development of community specific management categories that will result in effective implementation of local wetland resources. The Plan and related ordinance will provide the City with the standards and policies necessary to protect, conserve and manage wetland resources.

The BWSR Metro and Wetland Staff would like to commend the City of Eden Prairie for developing an effective Comprehensive Wetland Protection and Management Plan. The Plan successfully defines local wetland resource management strategies and integrates the local needs with regional and state policies and programs.

The City of Eden Prairie is not the local unit of government responsible for the implementation of the Wetland Conservation Act (WCA). At this time, WCA is implemented by the 3 watershed districts which encompass the City of Eden Prairie. The City will in the near future decide whether to become the responsible unit of government for WCA in the part of the City that is in the Lower Minnesota River Watershed District.

Background

The City of Eden Prairie lies on the south-central edge of Hennepin County. The City encompasses a township (36 square miles) and is bordered by Chanhassen on the west, Minnetonka on the north, Bloomington and Edina on the east and the Minnesota River on the south. Eden Prairie is one of the fastest growing communities in the county. The City, in developing its Plan, inventoried a total of 537 water bodies, 478 of which were wetlands. The City utilized an active wetland committee, which included agency staff, local staff and citizen advisory panel, to review and comment on the assessment methodology, value of functions analysis, and management strategies. The Plan has been developed with the goal of providing clear guidance for future decisions concerning wetlands in the City. The Plan also integrates the wetland management categories to the other aspects of municipal surface water planning and protection, such as buffers, and erosion and sedimentation control.

Staff from the Minnesota Department of Natural Resources, Hennepin Conservation District, Metropolitan Council, Minnesota Pollution Control Agency, Riley-Purgatory-Bluff Creek Watershed District, Nine Mile Creek Watershed District, Lower Minnesota Watershed District, and the Minnesota Board of Water and Soil Resources provided contributions during the planning process. Each of the agencies provided the City and its consultant with comments as the various plan drafts were completed.

BWSR Comments

Each wetland was evaluated using the Minnesota Routine Assessment Methodology and assigned a qualitative value classification based on the analysis of the functions present in the wetland. The City uses the classification in the ordinance to set standards for buffer width, discharge rate, inundation period, inundation amount (bounce), and run-out control. The ordinance also requires written documentation identifying the presence or absence of wetlands for any property proposing a land use change.

BWSR staff has participated with the City in the preparation of this Plan over the past three years and believes the Plan and ordinance will effectively and efficiently manage the wetland resources in the City of Eden Prairie. Staff recommends approval of the City of Eden Prairie Comprehensive Wetland Protection and Management Plan.

Doc/DA

CC: John Jaschke, WCA Program Manager
Steve Woods, BWSR (file copy)
Doug Norris, DNR Wetland Program Coordinator
Wayne Barstad, DNR Metro Region Ecological Services
Gene Soderbeck, MPCA

1.0 EXECUTIVE SUMMARY

Wetlands and their impact on the water quality of our City are important considerations during development review and in planning for the future. Wetlands have been recognized as an important asset to the community, both as an aesthetic amenity and for water quality improvement. This Plan was prepared to help the City in management of the quantity and quality of these resources. This Plan includes an inventory and functional assessment of wetlands as they looked at the time of the field inventory. Known stormwater ponds were also included in the inventory. The Plan also provides the City's goals and objectives for managing our wetland resources as well as establishing development review guidelines for development adjacent to wetlands. The 1997 wetland inventory included the entire limits of the City of Eden Prairie. The City of Eden Prairie lies in the south central edge of Hennepin County. The City encompasses a township (36 square miles) and is bordered by Chanhassen to the west, Minnetonka to the north, Bloomington and Edina to the east, and the Minnesota River to the south (Figure 1).

1.1 Relationship to Other Plans

The Comprehensive Wetland Protection and Management Plan (CWMP) was written as a planning tool for development review as well as for protection of the City's remaining wetland resources. Two other planning tools will be developed for the City. This includes:

- Local Drainage Plan Update (LDP)
- Local Water Management Plan (LWMP)

The LDP is an update of the 1970 Drainage Plan for Eden Prairie and includes stormwater modeling from a quantitative aspect. The Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) and the Nine-Mile Creek Watershed District (NMCWD) will provide water quality monitoring data. This data will be incorporated into the LWMP. Lower Minnesota River Watershed District (LMRWD) has not completed any water quality monitoring at this time nor do they anticipate doing so during the timeframe for the LWMP. The LDP will be completed in 1999.

The information from the CWMP and LDP as well as the three Watershed District Water Management Plans (Second Generation 509 Plans) will be used in preparing the City's overall Local Water Management Plan (LWMP). The LWMP will address surface water issues within the City, including lakes, streams and wetlands. It is anticipated that the LWMP will be completed in the year 2000.

1.2 Summary of Results

A total of 537 water bodies were inventoried within the City of Eden Prairie during the summer of 1997. The inventory included a functions and value assessment utilizing the Minnesota Routine Assessment Method (MinRAM) Version 1.0 (Minnesota Interagency Wetland Group, 1996). No delineations were conducted as part of the inventory. Wetland boundaries were

estimated using visual observations and vegetation evaluations. The distribution of water bodies identified included:

- 478 wetlands
- 15 lakes
- 44 non-jurisdictional stormwater basins

The distribution of these water bodies is shown in **Figure 2**. Information on each of the wetlands and stormwater ponds included in the inventory was inputted directly into the MinRAM, Version 1.0 computer database in the field. The database will provide easy access to the information by City staff, residents, or others interested in reviewing the wetland information collected. No field sheets or written notes were generated for this Plan. In addition to this Plan, the final work product includes:

- Computer database of MinRAM, Version 1.0 summarizing the information collected on wetlands, lakes and storm ponds within the City.
- Digital photographs of each wetland.
- Interactive map linking the City base map to the wetland areas and database.

1.3 Disclaimers

The following assumptions are part of this Plan.

- Absence of a wetland on the City map (**see Figure 2**) is not a definitive indication that a jurisdictional wetland does or does not exist on a parcel.
- The field verification of wetland boundaries does not represent the delineation requirements under the COE 1987 Wetlands Delineation Manual.
- No definitive jurisdictional determinations were made as part of the inventory. Determinations of jurisdiction would need to be on a case by case basis prior to development planning or maintenance activities.
- No detailed investigation as to the feasibility of restoration or potential restoration sites was made. Potential sites were identified based on cursory review of readily available information, such as soil survey data and field observations during the inventory.

2.0 PURPOSE OF PLAN

2.1 Regulatory Objectives

Pursuant to Minn. Rules 8420.0650, the City of Eden Prairie has developed this Comprehensive Wetland Protection and Management Plan (CWPMP), which will become part of the City's Local Water Management Plan (LWMP). This plan provides the following information, as required in the Minn. Rules 8420.0650 subp. 2.

- An inventory of wetlands in the City.
- An assessment of the wetland functions using the Minnesota Routine Assessment Method for Evaluating Wetland Functions (MinRAM), Version 1.0.
- The resulting public values.

2.2 City Objectives

The City will utilize this plan to:

- Determine high and exceptional quality wetlands that would require additional protection considerations.
- Provide mechanisms for consistent wetland protection, management, restoration, and mitigation.
- Evaluate the potential to establish a wetland-banking program to foster the retention of wetland functions and values within the City.
- Evaluate the potential delegation to the City of state and federal regulatory programs, including the adoption of Local Governmental Unit (LGU) status under the Minnesota Wetland Conservation Act (WCA).
- Establish a set of development review guidelines for development adjacent to existing wetlands and stormwater ponds.
- Develop an educational program on wetlands and stormwater management for City residents.

2.3 Relation of CWPMP to Goals & Policies of Local, Regional, State and Federal Plans

The recommendations set forth in this plan are consistent with local, regional, state and federal rules including:

- Wetland Conservation Act and Minnesota Rules Chapter 8420
- Minnesota Pollution Control Agency Water Quality Standards Chapter 7050
- U.S. Army Corps of Engineers - Section 404 Clean Water Act
- Riley Purgatory Bluff Creek Watershed District Water Management Plan
- Nine Mile Creek Watershed District Water Management Plan
- Draft Lower Minnesota River Watershed District Water Management Plan (1998)
- Metropolitan Council Water Resources Management Policy Plan

3.0 PUBLIC AND AGENCY INVOLVEMENT IN PLAN DEVELOPMENT

The development of this plan has included the on-going involvement of:

- City staff,
- The Environmental and Waste Management Commission, citizen volunteers having a variety of interests in wetland protection, management and/or regulation,
- Three Citizen-at-large, citizen volunteer representatives,
- Technical Advisory Committee, agency staff and representatives of the watershed districts located within the City.

The groups listed above contributed many hours of their time in the review of the wetland inventory methodology, assessment of the values assigned to the wetland functions, and overall report with management strategies.

A list of the contributing individuals can be found in the Acknowledgment Section of this plan.

**CITY OF EDEN PRAIRIE
HENNEPIN COUNTY, MINNESOTA**

ORDINANCE NO. 6-2000

AN ORDINANCE OF THE CITY OF EDEN PRAIRIE, MINNESOTA, AMENDING CITY CODE CHAPTER 11, LAND USE REGULATIONS (ZONING), BY ADDING SECTION 11.51 RELATING TO ESTABLISHMENT OF STANDARDS FOR THE PROTECTION OF WETLANDS AND ADOPTING BY REFERENCE CITY CODE CHAPTER 1 AND SECTION 11.99, WHICH AMONG OTHER THINGS CONTAIN PENALTY PROVISIONS.

THE CITY COUNCIL OF THE CITY OF EDEN PRAIRIE, MINNESOTA ORDAINS:

Section 1. City Code Chapter 11 as amended by adding Section 11.51 entitled "Standards for the Protection of Wetlands" adopted as follows:

SECTION 11.51. STANDARDS FOR THE PROTECTION OF WETLANDS

Subd. 1. Preamble

This Code hereby incorporates by reference the Wetlands Conservation Act [Minn. Stat. 103G.221 et seq. (herein after referred to as the WCA)] and any future amendments adopted by the legislature. All wetlands, as defined in Section 11.51, Subd. 3 of this Code, including those governed by the Department of Natural Resources, are covered by this Code. In unique situations where the physical characteristics of a specific parcel of land preclude the strict enforcement of these regulations, alternatives to these standards are established in Section 11.51, Subd. 7 of this Code.

Subd. 2. Purpose

Through the adoption and enforcement of this Code, the City shall promote the general health, safety, and welfare of its residents by both conserving and protecting wetlands and requiring sound management practices as provided for in the WCA when development occurs in the vicinity of wetlands. It is the intent of this ordinance to avoid the alteration and destruction of wetlands. Through the implementation of this Code, the City seeks to accomplish the following purposes:

1. Balance the need to preserve and protect natural resources and systems with both the rights of private property owners and the need to support the efficient use of developable land within the City;
2. Promote water quality by maintaining the ability of wetlands to recharge ground water and receive the discharge of ground water, to prevent soil erosion, and to retain sediment, nutrients and toxicants in wetland buffer strip areas before it discharges into community wetlands, lakes and streams, thus avoiding the contamination and eutrophication of these water features;
3. Reduce human disturbances to wetlands by providing a visual and physical transition from surrounding yards; and
4. Provide wildlife habitat and thereby support the maintenance of diversity of both plant and animal species within the City.

Subd. 3. Definitions.

The following terms, as used in this Section, shall have the meanings stated. Terms not defined shall have the meaning as stated in Section 11.02:

- A. "Applicant" – The "Applicant" means the person applying to begin a development in the City.
- B. "Bog" – A "Bog" is a Type 8 Wetland as defined by U.S. Fish and Wildlife Circular 39.
- C. "City Manager" – The "City Manager" means the City Manager or his/her designee."
- D. "City Wetland Map" – The "City Wetland Map" is referenced as "Figure 2 – Wetland, Lake and Stormwater Pond Locations" and is part of the Comprehensive Wetland Protection & Management Plan (1999) prepared by the City. The City Wetland Map may be amended from time to time as wetland, lake and stormwater pond conditions change. The City map adopted by this ordinance shall be prima facie evidence of the location and classification of a wetland.
- E. "Development Application" – "Development Application" includes but is not limited to applications for Land Development, Site Plan Review, Planned Unit Development, rezoning, platting or land alteration.
- F. "Hydroperiod" – The extent and duration of inundation and/or saturation of wetland systems.
- G. "MinRAM" – The Minnesota Routine Assessment Methodology (MinRAM) as referenced in Minnesota Rules 8420.0540, Subpart 10(G). MinRAM is a field tool used to assess wetland functions on a qualitative basis. Functions include floristic diversity and integrity; wildlife habitat; water quality protection; flood & stormwater attenuation; recreation, aesthetics, education & science; fishery habitat; shoreline protection; groundwater interaction; and commercial uses.
- H. "NURP Pond" – A stormwater pond constructed to meet National Urban Runoff Program requirements.
- I. "Public Value Credit (PVC)" – Wetland replacement credit that can only be used for the portion of wetland replacement requiring greater than a 1:1 ratio of wetland fill to wetland replacement.
- J. "Setback" – The minimum horizontal distance between a structure and the nearest edge of the wetland buffer strip.
- K. "Scientific or Natural Area" – "Scientific or Natural Area" means an area designated by local, state or federal action as providing unique qualities such as recreational, scientific or educational uses. This would include, but is not limited to areas that:
 - have resources restored for specific purposes, such as water quality improvement, wetland mitigation or wildlife habitat,
 - have a direct hydrologic association with a designated trout stream,
 - border the Minnesota River,
 - Are recognized as an Outstanding Resource Value Water (Minn. Rules Chapter 7050),
 - are within an environmental corridor identified in a local water management plan,
 - are part of a sole-source aquifer recharge area,
 - provide endangered species habitat, or
 - have biological communities or species that area listed in the Natural Heritage inventory database.
- L. "Structure" – A "Structure" means a Structure as defined in Section 11.02, 56 of this Code.

- M. "Vegetation, Native" - Plant species indigenous to or naturalized to the State of Minnesota, excluding noxious weeds as defined and designated pursuant to the "Minnesota noxious weed law", Minnesota Statutes, Sections 18.76-18.88, as amended from time to time.
- N. "Wetland" - Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, wetlands must:
- have a predominance of hydric soils;
 - be inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
 - under normal circumstances support a prevalence of hydrophytic vegetation.
- O. "Wetland Buffer Strip" - An area of vegetated ground cover around the perimeter of a wetland that, either in its natural condition or through intervention, has the characteristics of a Buffer as defined in Section 11.02, 7, "Buffer".
- P. "Wetlands, Exceptional Quality" - Exceptional Quality wetlands have an exceptional floristic diversity and integrity function, based on the results of MinRAM. They contain an abundance of different plant species with dominance evenly spread among several species. Such wetlands may support some rare or unusual plant species. Invasive or exotic plant species are either absent or limited to small areas where some disturbance has occurred. These wetlands exhibit no evidence of significant man-induced water level fluctuation.
- Q. "Wetlands, High Quality" - High quality wetlands have a high floristic diversity and integrity function, based on the results of MinRAM, and are still generally in their natural state. They tend to show less evidence of adverse effects of surrounding land uses. Exotic and invasive plant species may be present and species dominance may not be evenly distributed among several species. There tends to be little evidence of water level fluctuation due to storms and their shorelines are stable with little evidence of erosion. They show little if any evidence of human influences resulting in higher levels of species diversity, wildlife habitat and ecological stability.
- R. "Wetlands, Moderate Quality" - Moderate quality wetlands have a moderate floristic diversity and integrity function, based on the results of MinRAM. They have a slightly higher number of plant species present than low quality wetlands, often with small pockets of indigenous species within larger areas dominated by invasive or exotic species. Their relatively greater species diversity results in slightly better wildlife habitat. They exhibit evidence of relatively less fluctuation in water level in response to storms and less evidence of shoreline erosion than low quality wetlands. They also exhibit relatively less evidence of human influences and therefore, tend to be of a higher aesthetic quality than low quality wetlands.
- S. "Wetlands, Low Quality" - Wetlands included in this category have a low floristic diversity and integrity function, based on MinRAM, and have been substantially altered by agricultural or urban development that caused over-nitrification, soil erosion, sedimentation and water quality degradation. As a result of these factors these wetlands exhibit low levels of plant species diversity; overcrowding and dominance of such invasive species as reed canary grass and purple loosestrife; and a related reduction in the quality of wildlife habitat. These wetlands may also tend to exhibit extreme water level fluctuations in response to storms and show evidence of shoreline erosion. These wetlands do provide for water quality and serve an important role in protecting water quality downstream.
- T. "Wildlife Habitat" - Plant communities that support wildlife in a natural, undomesticated state.

- U. "Yard" – That portion of a lot not occupied by a Structure. Yard does not include any wetlands or wetland buffer strips on the property.
- V. "Yard-Front" – The portion of a Yard extending across the front of the lot between the side lines of the lot and lying between the front line of the lot and the nearest line of a building.
- W. "Yard-Rear" – The portion of a Yard between the rear lines of the building and the rear line of the lot, for the full width of the lot.
- X. "Yard-Side" – The portion of a Yard between the building and the side lot line, and extending from the front lot line to the furthest extent of the rear lot line.

Subd. 4. General Provisions – Identification, Delineation, Mitigation, Testing and Reporting Requirements.

- A. This Code shall apply to all lands containing wetlands and lands within the setback and wetland buffer strips required by this Code. Wetlands shall be subject to the requirements established herein, as well as restrictions and requirements established by other applicable Federal, State, and City ordinances and regulations. These wetland protection regulations shall not be construed to allow anything otherwise prohibited in the zoning district where the wetland is located. This Code establishes four wetland classifications as defined in Section 11.51, Subd. 3 of this Code; Exceptional Quality, High Quality, Moderate Quality, and Low Quality.
- B. The presence or absence of a wetland on the City Wetland Map does not represent a definitive determination as to whether a wetland covered by this Code is or is not present. Wetlands that are identified during site specific delineation activities but do not appear on the City Wetland Map are still subject to the provisions of the Code. It is the responsibility of the Applicant to determine whether a wetland exists on a subject property or within the setback from a wetland on an adjacent property.

It is the responsibility of the Applicant to delineate the wetland boundary of wetlands on the subject property ("Wetland Delineation Report"). An Applicant shall not be required to delineate wetlands on adjacent property. However, an Applicant shall be required to review available information, including but not limited to the City Wetland Map, County Soil Survey Map, U.S. Fish and Wildlife Service Wetland Maps, and visual information such as the presence of wetland vegetation and hydrologic evidence which can be viewed from the subject property, to estimate the wetland boundary.
- C. Written documentation identifying the presence or absence of wetlands on the property, including any wetland delineation and wetland buffer strip vegetation evaluation, must be provided to the City by the Applicant with the Development Application. It is the responsibility of the Applicant to contact the City to obtain a wetland or water body identification number and any information regarding the documented wetland, including any existing MinRAM information, for inclusion in any documentation provided to the City by the Applicant. All Wetland Delineation Reports and Wetland Buffer Strip Vegetation Evaluation Reports must be provided to the City for evaluation during development review. The Applicant must also contact the City to obtain a water body identification number for any existing or proposed stormwater or NURP pond within the Development.
- D. A MinRAM functional assessment (Version 1.0 or newer) must be completed by the Applicant for wetlands which are not identified on the City Wetland Map or for wetlands for which the Applicant's wetland information is significantly different in function, size or position from the

- City's assessment. The functional assessment must be submitted to the City with the Wetland Delineation Report.
- E. Water quality testing results must be provided by the Applicant for any Development Application involving a wetland buffer strip of less than 100 feet for wetlands of exceptional quality which contain standing water during the growing season. One water sample must be collected from the surface water (within the upper 12 inches of water) and analyzed by an accredited laboratory for pH, conductivity, total phosphorus, soluble reactive phosphorus, total dissolved solids, total suspended solids and chlorides. The water quality testing results must be submitted to the City with the wetland delineation report.
 - F. For Development Applications involving wetland filling or draining, the Applicant must provide written documentation to the City with the Development Application regarding the avoidance and minimization efforts used to avoid or minimize impact upon the wetland. Conceptual wetland replacement plans for any proposed impacts that would require replacement under WCA or U.S. Army Corps of Engineers regulatory programs must also be provided to the City by the Applicant at this time. It is the responsibility of the Applicant to contact the City to obtain a wetland identification number for use in the replacement plan report for any replacement wetlands constructed within the City.
 - G. If the Applicant disputes whether a wetland exists or its classification, the Applicant has the burden to supply detailed information supporting the Applicant's assertion. This includes, but is not limited to, historical aerial photography, topographic, hydrologic, floristic and/or soil data deemed necessary by the City or Local Governmental Unit (LGU) under the WCA to determine the jurisdictional status of the wetland, its exact boundary and its classification.
 - H. Wetland Buffer Strip Vegetation Evaluation and Wetland Delineation Reports supplied by the Applicant shall be prepared by a qualified wetland delineator in accordance with current state and federal regulations. Wetland delineators must satisfy all certification requirements that are established by the U.S. Army Corps of Engineers or the Minnesota Board of Water and Soil Resources or, in the absence of such certification, are determined by the City Manager to be a qualified wetland delineator.

Subd. 5. General Standards

The following standards apply to all lands that contain and/or abut a wetland or a wetland buffer strip:

- A. Structures intended to provide access to or across a wetland shall be prohibited unless a permit is obtained in conformance with Minnesota Statutes and applicable state rules and regulations.
- B. The Minnesota Pollution Control Agency's Urban Best Management Practices shall be followed to avoid erosion and sedimentation during the construction process. In addition, the Applicant shall follow the regulations set forth in City Code Section 11.55, Subd. 6.
- C. The manner in which storm water is routed through a natural wetland will be designed in accordance with the following hydroperiod standards to avoid water level fluctuations to the wetland during storm and snow-melt runoff events. The standards have been adapted from the State of Minnesota's Storm-Water Advisory Group's "Storm-Water and Wetlands: Planning and Evaluation Guidelines for Addressing Potential Impact of Urban Storm-Water and Snow-Melt Runoff on Wetlands". Scientific or Natural Areas and Bogs shall be governed by the Exceptional Quality Wetland Standards stated below.

Hydroperiod Standard	Exceptional Quality Wetlands	High Quality Wetlands	Moderate Quality Wetlands	Low Quality Wetlands
Storm Bounce	Existing	Existing plus 0.5 feet	Existing plus 1.0 feet	No limit
Discharge Rate	Existing	Existing	Existing or less	Existing or less
Inundation Period for 1 & 2 year precipitation event	Existing	Existing plus 1 day	Existing plus 2 days	Existing plus 7 days
Inundation Period for 10 year precipitation event & greater	Existing	Existing plus 7 days	Existing plus 14 days	Existing plus 21 days
Run-out control elevation (free flowing)	No change	No change	0 to 1.0 feet above existing run out	0 to 4.0 feet above existing run out
Run-out control elevation (landlocked)	Above delineated wetland	Above delineated wetland	Above delineated wetland	Above delineated wetland

D. Where a wetland buffer strip is required, the Applicant shall:

- (i) Before the City releases the final plat or, if there is no plat approval involved, the first building permit for the entire subject property, submit to the City Manager and receive the City Manager's approval of a conservation easement for protection of the approved wetland buffer strip. The easement must describe the boundaries of the wetland and wetland buffer strips, monuments and monument locations and prohibit any Structures, paving, mowing, introduction of non-native vegetation, cutting, filling, dumping, yard waste disposal, fertilizer application or removal of the wetland buffer strip monuments within the wetland buffer strip or the wetland.
- (ii) Before the City releases the first building permit for the entire subject property,
 - (a) submit evidence to the City Manager that the approved easement document has been recorded in the Hennepin County Recorder's/Registrar of Titles' office,
 - (b) submit a duplicate original of the easement document executed and acknowledged and otherwise in form and substance acceptable for filing with the Hennepin County Recorder/Registrar of Titles office and,
 - (c) install the wetland monumentation required by Section 11.51, Subdivision 8 of this ordinance.

E. All Yards shall be sodded or seeded and mulched. All open areas within the wetland buffer strip shall be seeded and/or planted in accordance with Subdivision 9 (C). All sodding, seeding or planting must be completed prior to removal of any erosion control. If construction is completed after the end of the growing season, erosion control shall be left in place and all disturbed areas shall be mulched to protect these areas over the winter season. Variances for sod outside of the wetland buffer strip areas, in accordance with City Code Section 9.71 shall be considered on a case by case basis.

Subd. 6. Wetland Buffer Strips and Setbacks

- A. For a Lot of record or a Development Application approved by the City Council after February 1, 2000, the Applicant shall maintain a wetland buffer strip around the perimeter of all wetlands and all stormwater or NURP ponds which are constructed as part of a wetland mitigation plan or Public Value Credit as part of an approved wetland mitigation plan. The setback and wetland buffer strip provisions of this Code shall not apply to a Lot of record as of February 1, 2000 or for Development Applications for which site plans, preliminary plats, final plats or planned unit development plans have been approved by the Community Planning Board or City Council prior to this date. The City does however, strongly encourage the use of a wetland buffer strip and setback on all lots in the City.
- B. Wetland buffer strips and structure setbacks shall apply regardless of whether or not the wetland or stormwater pond is on the same parcel as a proposed Development Application. For parcels in which the wetland or stormwater or NURP pond is on an adjacent parcel, the setback and wetland buffer strip requirements for the parcel shall be reduced by the distance between the property line of the parcel and the wetland or stormwater pond on the adjacent parcel. This provision in no way reduces or eliminates any other setbacks required by the City Code or any other law or regulation.
- C. The Applicant shall establish and maintain wetland buffer strip vegetation in accordance with the requirements found in Section 11.51, Subd. 9. Wetland buffer strips shall be identified within each Lot by permanent monumentation approved by the City Manager in accordance with Section 11.51, Subd. 8.
- D. Alterations, including but not limited to building, paving, mowing, introduction of non-native vegetation, cutting, filling, dumping, yard waste disposal or fertilizer application, are prohibited within the wetland buffer strip. However, non-native vegetation, such as European buckthorn, purple loosestrife and reed canary grass, may be removed as long as the wetland buffer strip is maintained to the standards required by the City. Alterations would not include plantings that enhance the native vegetation or selective clearing or pruning of trees or vegetation that are dead, diseased or pose similar hazards.
- E. For roadways or other Structures where the City determines that there is no practical alternative except to be aligned either adjacent to or across wetlands, additional wetland filling to create a wetland buffer strip shall not be required. Trails that are intended to serve an interpretive function are also exempted from the wetland buffer strip requirement. All other areas and Structures, including roadways and trails shall meet the setbacks and wetland buffer strip standards established in Table 1 below. The use of a meandering wetland buffer strip to maintain a natural appearance is encouraged.
- F. An existing structure, driveway or parking area would be considered a legal nonconforming structure if a later WCA delineation shows that the wetland is closer than the required setback.

Table 1 - Wetland Buffer Strips and Setbacks

	<u>Exceptional</u>	<u>High</u>	<u>Moderate</u>	<u>Low</u>
Wetland Buffer Strip (Minimum Width)	50'	50'	25'	25'
Structure Setback (from Wetland Buffer Strip)	15'	15'	15'	15'
Total Minimum Distance from Wetland	65'	65'	40'	40'

* The wetland buffer strip width for stormwater ponds utilized as mitigation credit shall be measured from the Ordinary High Water Level (OHWL) of the pond.

Subd. 7. Alternative Wetland Buffer Strips and Setbacks With Extraordinary Management Measures

- A. Recognizing that there are instances where, because of the unique physical characteristics of a specific parcel of land, alternative wetland buffer strips may be necessary to allow for the reasonable use of the land, the alternative wetland buffer strip standards set forth below may be applied based on an assessment of the following:
- (1) Undue hardship would arise from not allowing the alternative, or would otherwise not be in the public interest,
 - (2) Size of the parcel,
 - (3) Configuration of existing roads and utilities,
 - (4) Percentage of parcel covered by wetlands,
 - (5) Configuration of wetlands on the parcel, and
 - (6) Results of the water quality testing provided pursuant to Subdivision 4 (E).
- B. The appropriateness of using the alternative standards will be evaluated as part of the review of the Applicant's Development Application. An Applicant must receive City Council approval to use the alternative standards. The alternative used must be within the spirit and intent of this Code.
- C. In instances where alternative wetland buffer strip standards are approved for a wetland, the Applicant will be required to apply extraordinary management measures during and for two years after construction to control erosion, sedimentation and nutrient loading which may affect the wetland. Dual-silt fencing is the recommended measure. Dual silt fencing will be considered properly installed if the up-slope fence is installed on the undisturbed edge of the wetland buffer strip and the down-slope fence is installed 5 to 6 feet into the unscarified wetland buffer strip. Silt fence must be placed outside of the wetland. An Applicant must demonstrate that alternatives to the recommended measures to control erosion, sedimentation and nutrient loading will limit dissolved phosphorus concentration to one milligram per liter (mg/l) or less. Extraordinary management measures that may be permitted in conjunction with and up-slope from the above wetland buffer strip and setback requirement include, but are not limited to, measures that add redundant protections to normally required Best Management Practices.
- D. Where alternative wetland buffer strip standards are approved, wetland buffer strips and structure setbacks shall meet the standards established in Table 2 below.

Table 2 - Alternative Wetland Buffer Strips and Setbacks, With Extraordinary Measures

	<u>Exceptional</u>	<u>High</u>	<u>Moderate</u>	<u>Low</u>
Wetland Buffer Strip (Minimum Width)	35'	30'	15'	10'
Average Wetland Buffer Strip Width	50'	45'	20'	15'
Structure Setback (from Wetland Buffer Strip)	15'	15'	15'	15'
Total (Average) Distance from Wetland:	65'	60'	35'	30'

- E. An Applicant shall be responsible for submitting with the Development Application all of the necessary information to document that the proposed extraordinary construction and stormwater management practices will meet or exceed the performance of the required wetland buffer strips and setbacks. An Applicant also has the burden of proving that the purpose and objectives of this Code will be met through the use of these Extraordinary Management Practices.

Subd. 8. Monumentation

A monument is required at each Lot line where it crosses a wetland buffer strip and shall have a maximum spacing of 200 feet along the edge of the wetland buffer strip. Additional posts shall be placed as necessary to accurately define the edge of the wetland buffer strip. If no wetland buffer strip is required, monuments shall be placed at the wetland boundary. The monument shall consist of a post and a wetland buffer strip sign. The post shall be of a material approved by the City Manager, such as a fiberglass reinforced composite post with a maximum size of 4 inch by 4 inch (4" x 4"). The sign shall be mounted flush with the top of the post and shall state "Wetland Buffer: No Mowing Allowed" or "Wetland Buffer: Vegetation Clearing Limit". The post shall be mounted to a height of a minimum of four feet above grade set at least 42 inches in the ground. The bottom of the post must be fitted with an anchor attachment that would expand upon attempted removal. Monuments may be waived in unusual circumstances where the City determines that such signs would not serve a practical purpose.

Subd. 9. Wetland Buffer Strip Vegetation Performance Standards

- A. Where acceptable natural vegetation exists in wetland buffer strip areas, the retention of such vegetation in an undisturbed state is required unless an Applicant receives approval to replace such vegetation. A wetland buffer strip has acceptable natural vegetation if it:
- (i) has a continuous, dense layer of perennial grasses that have been uncultivated or unbroken for at least 5 consecutive years, or
 - (ii) has an overstory of trees and/or shrubs with at least 80 percent canopy closure that have been uncultivated or unbroken for at least 5 consecutive years, or
 - (iii) contains a mixture of the plant communities described in (1) and (2) above, that have been uncultivated or unbroken for at least 5 consecutive years.
- B. Notwithstanding the performance standards set forth above in Subdivision 9 (A), the City Manager may determine existing wetland buffer strip vegetation to be unacceptable if:

- (i) it is composed of undesirable plant species (including, but not limited to common buckthorn, purple loosestrife, leafy spurge and/or noxious weeds as defined by Minnesota Statutes, Sections 18.76-18.88), or
 - (ii) has topography that tends to channelize the flow of surface runoff, or
 - (iii) for some other reason it is unlikely to retain nutrients and sediment.
- C. Where wetland buffer strips, or a portion thereof, are not vegetated or have been cultivated or otherwise disturbed within 5 years of the permit application, such areas shall be re-planted and maintained. The wetland buffer strip plantings must be identified on the Development Application. The wetland buffer strip landscaping shall be according to each of the following standards:
- (i) Wetland buffer strips shall be planted with a seed mix containing 100 percent perennial native vegetation, except for a one-time planting of an annual nurse or cover crop such as oats or rye.
 - (ii) The seed mix to be used shall be broadcast at a minimum rate of 30 pounds per acre. The annual nurse or cover crop to be used shall be applied at a minimum rate of 20 pounds per acre. The seed mix shall consist of at least 12 pounds pure live seed (PLS) per acre of native prairie grass seed and 3 pounds PLS per acre of native forbs. Native prairie grass and native forb mixes shall contain no fewer than five (5) native prairie grasses and fifteen (15) native forb species. The Minnesota Department of Transportation Mix for prairie sedge and prairie meadow areas, Mixture 25A Modified (25B or 26B) or other alternative pre-approved by the City Manager can be used to meet these requirements. Applicants may obtain from the City a set of Native Wetland & Buffer Area Seeding Guidelines for wetland buffer strips that meet City requirements.
 - (iii) Native shrubs may be substituted for native forbs. All substitutions must be pre-approved by the City Manager. Such shrubs may be bare root seedlings and shall be planted at a minimum rate of 60 plants per acre. Shrubs shall be distributed so as to provide a natural appearance and shall not be planted in rows.
 - (iv) Any groundcover or shrub plantings installed within the wetland buffer strip are independent of landscaping required elsewhere by the City Code.
 - (v) Native prairie grasses and forbs shall be seeded or planted by a qualified contractor. The method of application and determination of the contractor's qualifications shall be made by the City Manager. It is the responsibility of the Applicant to have the contractor and method used approved by the City Manager prior to planting or seeding.
 - (vi) No fertilizer shall be used in establishing new wetland buffer strips, except on highly disturbed sites when deemed necessary to establish acceptable wetland buffer strip vegetation and then limited to amounts indicated by an accredited soil testing laboratory. Determination of proper accreditation shall be made by the City Manager.
 - (vii) All seeded areas shall be mulched immediately with clean straw at a rate of 1.5 tons per acre. Mulch shall be anchored with a disk or tackifier.
 - (viii) Wetland buffer strips (both natural and created), shall be protected by erosion control during construction in accordance with Section 11.51, Subd. 7.
 - (ix) The erosion control shall remain in place until the area crop is established.

- D. The Applicant shall establish and maintain the wetland buffer strip vegetation in accordance with the requirements found in this Code. During the first two full growing seasons, the Applicant must replant any wetland buffer strip vegetation that does not survive. After two full growing seasons, if the condition of the wetland buffer strip changes, the Applicant shall not be required to reestablish the wetland buffer strip to meet the standards contained in Section 11.51, Subd. 9. The Owner shall be responsible for reseeding and/or replanting if the wetland buffer strip changes at any time through human intervention or activities. At a minimum the wetland buffer strip must be maintained as a "no mow" area.

Subd. 10. Encroachment in Required Setback and Wetland Buffer Strip Areas

- A. Wetland buffer strips must be kept free of all Structures. Wetland buffer strips must not be mown except as pre-approved in writing by the City Manager for maintenance practices. The acceptability of the proposed maintenance practices shall be made by the City Manager.
- B. No more than ten percent (10%) of the Structure Setback area may be occupied by any Structures.
- C. Variances / Waivers
- (i) Only variances meeting the standards and criteria set forth in Section 11.76, Subd. 1 and waivers approved pursuant to Section 11.40, Subd. 8 for a Planned Unit Development (PUD) process shall be granted. All variance requests must be made to the Board of Adjustments and Appeals. All waiver requests must be made to the Community Planning Board and the City Council.
 - (ii) Variances or waivers shall not be granted which would circumvent the intent and purposes of Section 11.51.

Subd. 11. Performance Bond Required.

If a Development Application requires landscaping or construction of a wetland buffer strip no work shall begin and no permits shall be issued until the Applicant files with the City Manager a performance bond, cash escrow or letter of credit with a corporation approved by the City Manager, as surety thereon, or other guarantee acceptable to the City Manager and in an amount determined by the City Manager as set forth below:

- A. Amount - The amount shall be for no less than one and one-half (1 ½) times the amount estimated by the City Manager as the cost of completing said wetland buffer strip landscaping. The performance bond must cover two complete growing seasons following completion of the development and must be conditioned upon complete and satisfactory implementation of the approved wetland buffer strip landscape plan and final inspection of the wetland buffer strip by the City.
- B. Submittals - The Applicant shall provide one copy of a signed contract with an environmental consultant to monitor compliance and certify final completion of the wetland buffer strip requirements after the end of the second full growing season after completion of the development.
- C. Form of Application - The performance bond, cash escrow, letter of credit or other guarantee acceptable to the City Manager shall be posted within 10 days of approval of the Development Application and prior to the commencement of the Development or the preparations thereof.

Section 2 – Pursuant to Minnesota Statutes Section 103G.2243, the City Council adopts a Local Comprehensive Wetland Protection and Management Plan which has been prepared under the requirements of Minnesota Rules, Chapter 8420.

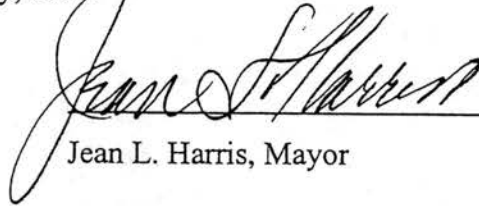
Section 3 – City Code Chapter 1, entitled “General Provisions and Definitions Applicable to the entire City Code Including Penalty for Violation” and Section 11.99, entitled “Violation a Misdemeanor” are hereby adopted in their entirety, by reference, as though repeated verbatim herein.

Section 4 - Effective Date - This Ordinance shall take effect upon its passage and publication.

FIRST READ at a regular meeting of the City Council of the City of Eden Prairie on the 18th day of January, 2000 and finally read and adopted and ordered published at a regular meeting of the City Council of said City on the 1st day of February, 2000.



Kathleen Porta, City Clerk



Jean L. Harris, Mayor

PUBLISHED in the Eden Prairie News on the _____ day of _____, 2000.

Committee Recommendations

1. Minnehaha Creek Watershed District
Boundary Change Petition -
DECISION

DRAFT

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

DRAFT

In the Matter of the Boundary Change Petition
for the Minnehaha Creek Watershed District in
Hennepin County pursuant to Minnesota
Statutes § 103B.215

**ORDER
BOUNDARY
CHANGE
HEARING**

Whereas, the Minnehaha Creek Watershed District filed a Petition dated February 9, 2000 with the Board of Water and Soil Resources (Board) on February 9, 2000, to change the watershed district's boundaries pursuant to Minn. Stat. § 103B.215, and;

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

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

FINDINGS

1. **Petition.** The Petition to change the boundary of the Minnehaha Creek Watershed District was filed by the Minnehaha Creek Watershed District Board of Managers with the Board on February 9, 2000.
2. **Property Description.** The territory to be included in the watershed district is an Area in Hennepin County, approximately 710 acres contiguous to the international airport, which includes but is not limited to, the Veterans Affairs Medical Center, Fort Snelling Cemetery, Bureau of Mines, a U.S. Naval facility, the Minnesota Department of Transportation, the Minneapolis Park Board, Camp Coldwater, and the Metropolitan Airports Commission. The Petition describes the Area in detail in Exhibits A and B of the Petition.

DRAFT

3. **Reasons for change.** The Petition lists the following:
 - A. The Area is not under the management or jurisdiction of any watershed district or joint powers watershed management organization.
 - B. The Area contains valued surface and ground water resources, including wetlands, black ash seeps along the Mississippi River bluffs, and Camp Coldwater Springs, a Native American sacred site and a valued natural and cultural resource. A remnant of native prairie, whose relation to the existing hydrology is not yet known, also is found within the Area.
 - C. MNDOT Highway 55 reconstruction will pass through the Area, including substantial construction associated with the Highway 55/Route 62 interchange. This construction will create potential wetland and surface water impacts and impacts on these valued groundwater resources. Light rail transit construction will follow, with a similar need for careful oversight.
 - D. The State of Minnesota recently has indicated an active intent to seek occupancy and use of buildings within Fort Snelling that lie within the Area, creating the likelihood of substantial construction activity associated with modernizing and providing infrastructure for the compound.
 - E. The remainder of the Area encompasses an assortment of federal and state lands subject in the coming years to transfer into other public or private hands and to use or development in ways not yet known.
4. **Filing Notice and Hearing Notice.** Minn. Stat. § 103B.215, Subd. 3 requires a notice of filing be published twice and, if a hearing is requested, publish a notice of hearing twice and hold a hearing. Due to the controversial nature of the Petition and the Board's commitment to timeliness and efficiency, a notice should be published twice that includes both the filing and the hearing details. The notice would be mailed to all interested parties. The hearing would be held only if a timely request for hearing were made.
5. **Hearing Location.** The hearing should be held at the Veterans Affairs Medical Center Conference Room. The facility is handicap accessible and located within the Area affected by the proposed boundary change.

DRAFT

6. **Hearing Panel.** The Board's Metro Water Planning Subcommittee should preside over the hearing due to their familiarity with the issues.
7. **Hearing Time.** The hearing should be held on Thursday, April 27, 2000, starting at 4:00 PM.
8. **Hearing Scope.** Testimony at the hearing will be limited to the merits of the proposed watershed district boundary change and the consistency or inconsistency of the proposed boundary change with the Metropolitan Surface Water Management Act as set forth in Minnesota Statutes § 103B.205 to 103B.255.

CONCLUSIONS

1. The petition for boundary change for the Minnehaha Creek Watershed District is valid in accordance with Minn. Stat. § 103B.215.
2. All relevant substantive and procedural requirements of law and rule have been fulfilled.
3. The Board has proper jurisdiction in the matter of ordering a watershed district boundary change hearing.
4. Notice of filing and hearing should be published as one notice due to the controversial nature of the Petition.

DRAFT

ORDER

The Board hereby orders that the hearing on the Petition for Boundary Change for the Minnehaha Creek Watershed District be heard by the Metro Water Planning Subcommittee on Thursday, April 27, 2000, starting at 4:00 PM at the Veterans Affairs Medical Center Conference Room, One Veterans Drive, Minneapolis, Minnesota, if a timely request for hearing is received.

Dated this 22nd day of March, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

DRAFT

By: _____
Kathleen M. Roer, Chair

Committee Recommendations

2. Comfort Lake-Forest Lake Watershed
District Hearing - DECISION

DRAFT

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

DRAFT

In the Matter of the Establishment of the
Comfort Lake-Forest Lake Watershed District
in Anoka, Chisago and Washington Counties
pursuant to Minnesota Statutes § 103D.221, S. 1

**ORDER
HEARING**

Whereas, the Board of Water and Soil Resources (Board) ordered the establishment of the Comfort Lake-Forest Lake Watershed District on September 23, 1999, and;

Whereas, Columbus Township in Anoka County and Anoka County were not properly notified of the establishment hearing, and;

Whereas, a public hearing should be ordered to receive comments on inclusion in the Comfort Lake-Forest Lake Watershed District of the area of Columbus Township in Anoka County that lies within the hydrologic boundary of the Comfort Lake-Forest Lake watershed;

Now Therefore, the Board hereby makes the following Order.

ORDER

The Board hereby orders that a hearing on the inclusion in the Comfort Lake-Forest Lake Watershed District of an area in eastern Columbus Township in Anoka County be heard by the Metro Water Planning Subcommittee at a time and place to be scheduled by the Executive Director, but not later than May 1, 2000.

Dated this 22nd day of March, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

DRAFT

By: _____
Kathleen M. Roer, Chair

Old Business

1. Year Two Staffing Grant
Agreements with SWCDs for CREP
Implementation - DECISION

**YEAR TWO STAFFING GRANT AGREEMENTS
WITH SWCD'S FOR CREP IMPLEMENTATION**

<u>SWCD</u>	<u>GRANT (\$)</u>	<u># of Staff</u>
Chippewa	30,615	1
Yellow Medicine	29,067	1
Lac Qui Parle	28,545	1
Lincoln	28,545	1
Swift ¹	28,722	1
Redwood	32,000	1
Lyon	32,000	1
Cottonwood ²	28,000	1
Renville	33,599	2
Waseca, LeSueur, Blue Earth ³	56,930	2
Martin	28,465	1
Watonwan	28,465	1
West Ottertail	10,000	0.5
Douglas, Grant, Traverse, Stevens ⁴	<u>30,000</u>	<u>See footnote 5</u>
TOTAL	424,953	14.5

¹Position will work 80% of the time in Swift and 20% of the time in Big Stone County.

²Position will also work in Jackson and Murray Counties.

³The fiscal agent (grant recipient) is LeSueur SWCD.

⁴The fiscal agent is Stevens SWCD.

⁵ This grant is for contracted services for easement promotion and processing.

Old Business

2. Update on Grazing Land Activities -
INFORMATION

ACTIVITIES OF GRAZING LANDS CONSERVATIONIST

3-22-2000

This is an update on my activities since the CRP-RIM Pilot Project was completed. My primary involvement has been with producers, preparing detailed Prescribed Grazing Plans. In addition, I have provided assistance to BWSR staff on vegetative management issues and provided training to conservation partners in grazing and vegetative management.

A.) Prescribed Grazing Plans

In the last two years, 90 plans have been prepared.

- About 60% have been related to EQIP contracts.
- About 70% have been in southeast Minnesota
- Currently have 38 requests on hand for plans
- Working to utilize GIS in plan development and reporting effects

B.) 319 Program

Currently working on a project: Grazing Lands Improvement in SE MN

- Will do three workshops for service providers and three for producers in the first year.
- Will provide the same workshops during the following year.
- Will complete 75 grazing plans in the two years in SE MN.

C.) Program Involvement

- Am a member of the NRCS EQIP group
- Am on the EQIP education committee
- Assisted with defining marginal pasture for CREP
- Provide assistance on RIM/WRP where grazing is involved

D.) Technology Development

- Developed conservation practice standard for Prescribed Grazing
- Rewrote practice standard for Fence
- Currently working on Forage Harvest Management, Pasture and Hayland Planting,
- Working on preparation of Grazing Planning Guidebook
- Developing livestock watering systems procedures for planning and design

E.) Training

- Provided training on the National Range and Pasture Handbook throughout most of MN
- Have developed, or am currently working on Forage Plant ID, Planning Prescribed Grazing Systems, Monitoring Pastures, Livestock Watering Systems
- Will be developing Fencing Systems for Livestock, Managing Sensitive Areas in Prescribed Grazing Systems, Range Plant ID, Range Management.

Old Business

3. Revisiting Reform Project -
DECISION

DRAFT

1 ☐ Revisiting Reform

Board of Water & Soil Resources

2 ☐ Vision Statement

- Minnesota Government that effectively and efficiently provides quality service to it's citizens.

3 ☐ Goal and Objective

- Review past initiatives and "Revisit Reforms" that have relevance today.
 - Toward Efficient Allocation & Management – 1979-81.
 - A Strategy to Preserve & Protect Water & Related Land Resources – June 1979.
 - A Special Study on Local Water Management – January 1981.
 - STEP - 1984.
 - CORE - 1991.
 - CROSS-CURRENTS – 1996.

4 ☐ Today's Situation

- How did the rcmdtns of each of these reform initiatives affect BWSR & BWSR's clientele.
- Which rcmdtns were successful and why?
- Which rcmdtns were not implemented and why?
- Do any recommendations have relevance today?
- Assess the content and the reform process.

5 ☐ Assessing the Reform Initiatives

- STEP.
 - What attributes of the process led to success; led to failure?
 - Discuss the key successes.
 - Relevance today?
- Repeat for each Reform Initiative.

6 ☐ Agency Reforms

- General Agency Assessment of Reform Success.
 - Examples of efforts and projects.
 - Reforms being considered.
 - Reforms that should be considered.
- Examples of reform efforts or processes of success elsewhere?
- Elements for Successful Gubernatorial Reform.

7 ☐ A Strategy to Preserve & Protect Water and Related Land Resources – June 1997 – Objectives

- A stronger focus on effective water management.
- Greater emphasis on the efficient us of water resources –water is not limitless.
- Improved collection & dissemination of info for critical water &land related decisions.
- Planning, research and decision-making that places increased emphasis on the state as a unit.

8 ☐ A Strategy to Preserve & Protect Water & Related Land Resources – Outcomes

- Creation of the Water Resources Committee within the EQB.
- Local water management base and challenge grant program established.
- Institutionalized state water planning process.
- Establishment of a water use fee structure as an incentive for water conservation.
- Enhancement of the surface & ground water monitoring system.

9 ☐ A Strategy to Preserve & Protect Water & Related Land Resources – Options to Revisit

- Initiation of a incentive and technical assistance program to promote water conservation.
- Establish a natural resources management fund to assist local governments to implement programs thru grants and revolving loans.
- Review current resource programs for relevancy and establish outcomes and timeframes to realize outcomes.

10 ☐ Special Study on Local Water Management – January 1981

- *"When government action is necessary, it should be taken by the level of government that is closest to the people and best suited to handle the responsibility."*
- Objectives:
 - Define role of local government in planning & implementing water management.
 - Clarify and improve relationships & authorities at the local level.

11 ☐ Special Study on Local Water Management – Outcomes

- Creation of BWSR.
- Enactment of the Local Water Mgmt Act.
- Establishment of local water planning grants.
- Enactment of Metro Water Planning Act.
- Increased cost-share \$'s.

12 ☐ Special Study on Local Water Management – Outcomes

- Completion & approval of local water plans trigger program delegation and eligibility for grants.
- Establishment of a statewide flood damage reduction grant program.
- Authority for local governments to adopt soil conservation & sediment control ordinances.
- Creation of the Legislative Water Commission.

13 ☐ Special Study on Local Water Management – Option to Revisit

- Create the opportunity for a regional or river basin natural resource management entity that follows major hydrologic boundaries.
- Create the opportunity for Local water management entities such as soil & water conservation districts, watershed districts & lake improvement districts to unite on the basis of hydrologic units or watersheds.
- Revisit the role of joint powers organizations in water management or natural resources management.

14 ☐ Strive Towards Excellence in Performance - STEP – 1984

- Established & implemented district evaluation process.
- SWCD District managers established.
- Increased & enhanced SWCD financial & technical capacity.
- STEP process a success & is repeatable.

15 ☐ CORE – Commission on Reform & Efficiency – 1991

- Reorganization of agencies failed.
 - Bigger is not better.
- Outcomes predetermined.
- Top down approach.
- Public and citizen input ignored.

- Few recommendations worth reconsideration.

16 ☐ CORE OUTCOMES

- Governor's office established Environmental Cluster.
- Technology enhancements and information sharing – WEB sites.
- State agencies and U of M, Extension given voting privileges on BWSR.
- Process for the elimination of outdated rules.
- Movement towards outcome based resource management.

17 ☐ CORE – ELEMENTS WORTH RECONSIDERATION

- Streamline the administrative procedures act and provide agencies with greater flexibility.
- Extend the authority of the Gov. to veto rule adoption.
- Further the co-location of facilities and offices thru the rental of space and partnerships with the private sector and local government.

18 ☐ Cross-Currents – 1996

- **Barriers:**
 - Agency funding can restrict change and cooperation.
 - Statutes & rules difficult to change.
 - Agency planning & leg process not connected.
 - Authorities sometimes unclear & overlapping.
 - Agencies have varied regional structures.
 - Data & communications systems unconnected within and among agencies.
 - Decision-making can be cumbersome.
 - Lack of resources hamper local efforts.
 - Special purpose districts difficult to modify.

19 ☐ Cross-Currents

- **Options:**
 - Build on current mgmt structure.
 - Develop plan for regl office co-location.
 - Simplify modifying special purpose districts.
 - Build on local water planning.
 - Enhance interagency coordination.
 - Integrate financial assistance programs.
 - Permit decision simplification & delegation.
 - Seek waiver from federal mandates.
 - Invest in technology.
 - Integrate sustainable development into state efforts.

20 ☐ Cross-Currents

- **Process & Content:**
 - Citizen & local government involved
 - Credible
 - Sustainable
 - Repeatable

21 ☐ BWSR Current Innovation or Reforms

- Wetland permit simplification.
- Grants administration efficiency.
- Outcome/accomplishment reporting.
- BWSR WEB site.
- State/federal/local partnerships.

DRAFT

22 ☐ **BWSR Reform Success**

- Grants adm. consolidation, NRBG.
- RIM Reserve streamlining.
- BWSR administrative reorg.
- Field office co-location.
- Agency voting on BWSR.

23 ☐ **BWSR Future Reform Opportunities**

- Special purpose district incentives for efficient & effective change.
- Remove barriers to local government efficiency.
- Continued enhancement of grants/loans administrative efficiency.
- Evaluate effectiveness of small WD's in SE Mn.

24 ☐ **BWSR Future Reform Opportunities**

- Performance rules for wetlands rather than prescriptive rules.
- Technology enhancements to share information between state & local governments.
- Amend Brd of Innovation laws to include special purpose districts & streamline process.
- Establishment of a State Soils Office with the U of M.

25 ☐ **BWSR Future Reform Opportunities**

- Enhance public/private partnership for technical and administrative expertise.
- Enhance interagency service to local governments in natural resources & land management.
- Use BWSR forum for greater state-local interaction on natural resources issues.
- Coordinated training & education program for local government to enhance capacity.

26 ☐ **BWSR Future Reform Opportunities**

- Revisit role of RCD's to provide coordinated planning assistance.
- Increased delegation to local governments to manage natural resources.
- Integrating natural resources planning with land use planning.
- Establishment of River Basin Authorities.

27 ☐ **Key Elements to Effective Gubernatorial "reform"**

- Providing tools & incentives for & remove barriers that deter reform.
- Focus on outcomes rather than who's doing what – the turf deterrent.
- Accessibility to information through technology.
- Promote creativity and innovation.
- Shared vision; shared responsibility; shared accountability & shared success.

New Business

1. Demonstration on Shoreland
Guidebook Project -
INFORMATION

MINNESOTA SHORELAND MANAGEMENT RESOURCE GUIDE

The **Minnesota Shoreland Management Resource Guide** will improve the implementation of effective and sustainable shoreland management practices in Minnesota. Through fact sheets, technical and scientific information, selections from existing publications, and an extensive bibliography, we will empower individuals to adopt practices to protect Minnesota's shorelands and waters. Our effort recognizes the similarities and differences in lake, river, and wetland shorelands across Minnesota.

Funding: The 1998 Legislature appropriation of \$100,000 passed through BWSR to Minnesota Sea Grant Extension. The stated purpose was "to review, update, and consolidate existing shoreland and lake related guidebooks, manuals, fact sheets, and publications into a single comprehensive document".

Outcome: The outcome will be an accurate, up-to-date source of shoreland education in an easy-to-use format.

Eight original documents were identified for this project:

- A Citizen's Guide to Lake Protection*
- A Guide to Land and Water Resource Management Programs in Minnesota*
- A Guidebook for Lake Associations*
- Best Management Practices for Protecting Your Shoreline*
- Developing a Lake Management Plan*
- Lake Prioritization for Protecting Swimmable Use*
- Minnesota Lake and Watershed Data Collection Manual*
- Mississippi Headwaters River Watch*

In addition to those documents, the Guide will include:

- new material on limnology, watersheds, and rivers
- a bibliography, glossary, and acronyms
- new resources on frequently asked questions (FAQs)

We have queried potential users of the product to assess the most frequently asked questions (FAQs) that are difficult to answer with existing publications. We are compiling these questions into one-page FAQ sheets that will be easy to download and distribute at a seminar or workshop.

We are initiating the project on a web site, which will mean educational materials can be more comprehensive and accessible. Updated links to agency and other useful web sites will ensure the information is accurate and remains current. The materials will also be compiled and summarized on CD. One thousand copies of the CD will be distributed to counties, MLA, WDs, SWCDs, WMOs, and COLAs, and other appropriate groups. Hard copies will be available on request.

For more information, please contact:

Marybeth Block, BWSR – 651-297-7965 <marybeth.block@bwsr.state.mn.us>

Janell Miersch, Sea Grant - 612-624-7460 <miers001@tc.umn.edu>

Advisory committee: The following individuals are serving as advisors throughout the project:

Kamal Alsharif, BWSR/Extension
Jim Anderson, Water Resources Center
Randy Anhorn, Metropolitan Council
Marilyn Bayerl, Douglas County Environmental Services
Marleane Callaghan, Fortin Consulting, Inc.
Russ Georgesen, St. Louis County Health Department
Cindy Hagley, Minnesota Sea Grant
Tom Hammer, Ann Lake Association
Shelley Hanson, U. S. Army Corps of Engineers, Regulatory Field Office
Steve Heiskary, MPCA
Jim Hodgson, MPCA
Jeff Hrubes, MPCA
Debbie Kaminov, Minnesota Sea Grant
Beth Kluthe, MDH, Source Water Protection
Barb Liukkonen, Water Resources Center
Art Norton, Itasca SWCD
Ken Olson, Extension
George Orning, Center for Urban and Regional Affairs
Dirk Peterson, MDNR
Mary Schmitz, Chisago County Water Plan Coordinator
Russ Schultz, MDNR
Dan Steward, BWSR
Doug Thomas, BWSR
Mark Wettlaufer, Morrison Co. Environmental Services, Planning & Zoning
Bruce Wilson, MPCA
Dave Wright, MDNR, Ecological Services
Mark Zabel, MDA, Monitoring and Assessment
Marie Zhuikov, Minnesota Sea Grant

April 2000



One West Water Street
Suite 200
St. Paul, MN 55107
(651) 296-3767
Fax (651) 297-5615

Field Offices

Northern Region:

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

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

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

Southern Region:

261 Highway 15 S.
New Ulm, MN 56073-8915
(507) 359-6074
Fax (507) 359-6018

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

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

Metro Region:

One West Water Street
Suite 250
St. Paul, MN 55107
(651) 282-9969
Fax (651) 297-5615

An equal opportunity employer

Printed on recycled paper

DATE: April 17, 2000

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

FROM: Ronald D. Harnack, Executive Director

SUBJECT: April 26, 2000 BWSR Meeting

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, April 26, beginning at 9:00 a.m. The meeting will be held in the BWSR conference room at One West Water Street, St. Paul. The following information pertains to the agenda items:

Consent Agenda

1. Pope County Request for Comprehensive Local Water Plan
Extension: See attached information. **DECISION**
2. Itasca County Request for Comprehensive Local Water Plan
Extension: See attached information: **DECISION**
3. Stearns County Request for Comprehensive Local Water Plan
Extension: See attached information: **DECISION**

Committee Recommendations

Metro Subcommittee:

1. Middle Mississippi River WMO Final Draft Plan: The Metro Water Planning Subcommittee met on April 11, 2000 to hear a presentation from the Middle Mississippi River WMO and consider the merits of the MMRWMO Final Draft Plan. The Metro Water Planning Subcommittee found the Plan substantially meets the requirements for a second-generation watershed management plan under MN Statutes Section 103B.201 to 103B.255 and MN Rules Chapter 8410. The Metro Subcommittee is recommending approval of the Plan. **DECISION**

Old Business

1. Lake Flooding in North Central Minnesota: At the January 2000 Board Meeting, \$100,000 of State Cost-Share Program roll-over funds for erosion and water quality projects were appropriated for Lake Flooding in North Central Minnesota. Funds must be used to improve and protect shoreline areas from record precipitation and lake flooding. The Board is requested to approve recommended projects for funding. **DECISION**

New Business

1. Shell Rock River Watershed District Establishment Hearing: On March 9, 2000 an establishment petition for the Shell Rock River Watershed District in Freeborn County was received. The establishment petition was filed with the Freeborn County Auditor, the DNR Commissioner and the DNR Director of the Division of Waters. On March 8, 2000 the Freeborn County Auditor certified that more than the 50 required petitioners were resident owners within the proposed watershed district. The petition was actually signed by approximately 755 people. Staff recommend the Board order an establishment hearing per the attached draft order. DECISION

If you need additional information, please feel free to give me a call. Travel safely, I look forward to seeing you on the 26th!

**BOARD OF WATER AND SOIL RESOURCES
ONE WEST WATER STREET, CONFERENCE ROOM
ST. PAUL, MINNESOTA 55107
APRIL 26, 2000**

PRELIMINARY AGENDA

9:00 a.m. Call Meeting to Order

Adopt Agenda

Minutes of March 22, 2000

Reports

- Chair – Kathleen Roer
- Executive Director – Ron Harnack
- Dispute Resolution Committee – Jim Haertel
- Wetlands Committee – Darrell Bruggman
- Cost-Share/Soil Conservation Committee – Dwain Otte
- Education and Public Relations Committee – Paul Krabbenhoft
- Financial Oversight Committee – Ginny Imholte
- Administrative Advisory Committee – Kathleen Roer

Agency Reports

- Department of Agriculture
- Department of Health
- Department of Natural Resources
- Minnesota Extension Service
- Pollution Control Agency

Consent Agenda

1. Pope County Request for Comprehensive Local Water Plan Extension – Pete Waller – DECISION
2. Itasca County Request for Comprehensive Local Water Plan Extension – Dan Steward – DECISION
3. Stearns County Request for Comprehensive Local Water Plan Extension – Dan Steward – DECISION

Committee Recommendations

Metro Subcommittee:

1. Middle Mississippi River WMO Final Draft Plan – Doug Snyder – DECISION

Old Business

1. Lake Flooding in North Central Minnesota – Wayne Zellmer –
DECISION

New Business

1. Shell Rock River Watershed District Establishment Hearing – Jim
Haertel – DECISION

Advisory Comments

- Minnesota Association of Townships (MAT)
- Minnesota Association of Conservation District Employees
(MACDE)
- Minnesota Association of Soil and Water Conservation Districts
(MASWCD)
- Minnesota Association of Watershed Districts (MAWD)
- Natural Resources Conservation Service (NRCS)

Upcoming Meetings

- Next BWSR Meeting, May 24, 2000
- MAWD Annual Tour, June 22-24, Pelican River Watershed District,
Detroit Lakes
- BWSR Tour and Meeting, June 28-29, Montevideo
- BWSR Retreat, August 22-23, Monticello

Adjourn

Consent Agenda

- 1. Pope County Request for
Comprehensive Local Water
Plan Extension
DECISION**

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

In the Matter of Extending the Comprehensive Local Water Plan
for **Pope** County (1995 Minnesota Session Law, Chapter 184,
Section 24 authorizing BWSR to grant extensions).

Whereas, Pope County has a state approved Comprehensive Local Water Plan that is effective until December 31, 2000 pursuant to Minnesota Statute 1990, Section 103B.301, and

Whereas, the Pope County Board of Commissioners requested an extension of the Comprehensive Local Water Plan to the Board of Water and Soil Resources on March 22, 2000, pursuant to Minnesota Session Law 1995, Chapter 184, Section 24, and

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

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

FINDINGS OF FACT

1. On March 27, 2000, the Board of Water and Soil Resources received a resolution from Pope County requesting an extension of their Comprehensive Local Water Plan.
2. On April 3, 2000, the Board of Water and Soil Resources staff reviewed and recommended approval of the extension request by Pope County.

CONCLUSIONS

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

ORDER

The Board of Water and Soil Resources hereby approves the extension of the Pope County Comprehensive Local Water Plan until December 31, 2002. Dated at St. Paul, Minnesota, this 26th day of April, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Kathleen Roer, Chairperson
April 26, 2000

POPE COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

Pope County has a Comprehensive Local Water Plan (CLWP), which was approved, by the Minnesota Board of Water and Soil Resources on December 20, 1995. Pope County then locally adopted their CLWP via a county resolution dated April 25, 1995. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting justify CLWP extensions to counties where other planning efforts (water or watershed level) are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other water planning efforts would benefit the CLWP update.

Pope County is an active player in several watershed level planning efforts currently underway: Chippewa River Watershed Project; Crow River Watershed Project; Sauk River Watershed Project; Trapper's Run Watershed Clean Water Partnership Project; Barsness Park Landscaping Project (DNR); City of Glenwood Stormwater Project; Central Sand Plains Monitoring Project and Pope County Geologic Atlas (MGS). Pope County also just passed a Land Use Controls Ordinance and will need time to help administrate this program.

Board Conservationist Pete Waller recommends approval of Pope County's two-year extension request to December 31, 2002.

Consent Agenda

- 2. Itasca County Request for
Comprehensive Local Water
Plan Extension
DECISION**

ITASCA COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

Itasca County has a Comprehensive Local Water Plan (CLWP) which was approved by the Minnesota Board of Water and Soil Resources on December 20, 1995. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting CLWP extensions to counties where other planning efforts are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other water planning related efforts would benefit the CLWP update.

Itasca County has been working to update the County Comprehensive Plan. The county would like to make use of information in the comp plan, especially related to the county's lake resources in the water plan. In addition the county also cited the Minnesota Water Plan 2000 as another ongoing planning effort they would like to make use of in updating the county water plan. Without the extension, the Itasca County Water Plan would not get the attention it deserves. Board Conservationist Dan Steward recommends approval of Itasca County's request.

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

In the Matter of Extending the Comprehensive Local Water Plan
for Itasca County (1995 Minnesota Session Law, Chapter 184,
Section 24 authorizing BWSR to grant extensions).

Whereas, Itasca County had a state approved Comprehensive Local Water Plan that is effective until December 31, 2000 pursuant to Minnesota Statute 1990, Section 103B.301, and

Whereas, the Itasca County Board of Commissioners requested an extension of the Comprehensive Local Water Plan to the Board of Water and Soil Resources on February 4, 2000, pursuant to Minnesota Session Law 1995, Chapter 184, Section 24, and

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

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

FINDINGS OF FACT

1. On February 4, 2000, the Board of Water and Soil Resources received a resolution from Itasca County requesting an extension of their Comprehensive Local Water Plan.
2. On April 11, 2000, the Board of Water and Soil Resources staff reviewed and recommended approval of the extension request by Itasca County.

CONCLUSIONS

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

ORDER

The Board of Water and Soil Resources hereby approves the extension of the Itasca County Comprehensive Local Water Plan until December 31, 2001. Dated at St. Paul, Minnesota, this 26th day of April, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Kathleen Roer, Chairperson

Consent Agenda

**3. Stearns County Request for
Comprehensive Local Water
Plan Extension
DECISION**

STEARNS COUNTY COMPREHENSIVE LOCAL WATER PLAN (FOR BOARD ACTION)

Stearns County has a Comprehensive Local Water Plan (CLWP) which was approved by the Minnesota Board of Water and Soil Resources on January 24, 1996. The effective date (end date) of this CLWP is December 31, 2000.

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

At their December 15, 1999, board meeting, the BWSR approved a local water planning document which addressed BWSR expectations, internal actions and multi-planning strategies. Multi-planning strategies addresses granting CLWP extensions to counties where other planning efforts are currently underway. These other efforts require the input of the water planner and associated technical advisors in the county. Completion of other planning efforts would benefit the CLWP update.

Stearns County is currently enmeshed in extensive work on its proposed county-wide zoning ordinance. In addition the county noted that with the extension the county could incorporate the MPCA's basin plan into their updated water plan. The county is also working on updating its solid waste ordinance. Last, the county would also be able to incorporate components of DNR's Mississippi Scenic Rivers Ordinance into the water plan. Without the extension, update of the water plan would not get the attention it deserves. Board Conservationist Dan Steward recommends approval of Stearns County's request.



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

In the Matter of Extending the Comprehensive Local Water Plan
for Stearns County (1995 Minnesota Session Law, Chapter 184,
Section 24 authorizing BWSR to grant extensions).

Whereas, Stearns County had a state approved Comprehensive Local Water Plan that is effective until December 31, 2000 pursuant to Minnesota Statute 1990, Section 103B.301, and

Whereas, the Stearns County Board of Commissioners requested an extension of the Comprehensive Local Water Plan to the Board of Water and Soil Resources on March 17, 2000, pursuant to Minnesota Session Law 1995, Chapter 184, Section 24, and

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

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

FINDINGS OF FACT

1. On March 17, 2000, the Board of Water and Soil Resources received a resolution from Stearns County requesting an extension of their Comprehensive Local Water Plan.
2. On April 11, 2000, the Board of Water and Soil Resources staff reviewed and recommended approval of the extension request by Stearns County.

CONCLUSIONS

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

ORDER

The Board of Water and Soil Resources hereby approves the extension of the Stearns County Comprehensive Local Water Plan until December 31, 2001. Dated at St. Paul, Minnesota, this 26th day of April, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Kathleen Roer, Chairperson

Committee Recommendations

**1. Middle Mississippi River
WMO Final Draft Plan
DECISION**

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

In the Matter of the review of the Watershed
Management Plan for the **Middle Mississippi River
Watershed Management Organization** pursuant to
Minnesota Statutes Section 103B.231, Subdivision 9.

**ORDER
APPROVING WATERSHED
MANAGEMENT PLAN**

Whereas, the Middle Mississippi River Watershed Management Organization (MMRWMO) submitted a Watershed Management Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to Minnesota Statutes Section 103B.231, Subd. 9, and;

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

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

FINDINGS OF FACT

1. **Establishment.** In January 1997, a Joint and Cooperative Agreement (JCA) was entered into by the cities of Minneapolis, St Paul, Falcon Heights, Lauderdale, St Anthony, and the Minneapolis Park and Recreation Board. The 1997 JCA replaced the existing agreement executed in 1985 that created the MMRWMO. The essential purpose of the MMRWMO is to provide for the long-term management of water and associated land resources within the Middle Mississippi River Watershed.
2. **Requirement to Plan.** The Metropolitan Water Management Act requires the preparation of a watershed management plan for the subject watershed area which meets the requirements of Minnesota Statutes Sections 103B.201 to 103B.251.
3. **Nature of the Watershed.** The legal boundary of the MMRWMO is approximately 30 square miles in size. The MMRWMO is located in the center of the Twin Cities metropolitan area. The area within the MMRWMO is a highly developed urban watershed, however there are some key redevelopment and retrofit opportunities remaining in the watershed. The area's significant water resources include St Anthony Falls, a portion of the Mississippi National River Recreation Area and Mississippi River Critical Area.

4. **Local review.** The MMRWMO circulated a copy of the draft Plan to local units of government, the county, the state review agencies, the metropolitan council, and the Board for their review pursuant to Minnesota Statutes Section 103B.231, Subd. 7.

5. **Agency Review.** On October 11, 1999 the state review agencies met to discuss the draft Plan of the MMRWMO. The Board, with assistance from the agencies that submitted comments, incorporated the comments into a single document to send to the MMRWMO. The joint agency review letter was sent to the MMRWMO October 29, 1999. The following summarize each agency's comments.

5a. **Metropolitan Council Review.** On October 19, 1999 the Metropolitan Council provided written comments on the Plan to the Board containing the following findings and conclusions:

1. The Plan's policies are consistent with the policies of the Council's *Water Resources Management Development Guide*.
2. The inventory of land and water resources is fairly complete.
3. The Plan needs to contain a function and value assessment for wetlands.
4. The Combined Sewer Overflow (CSO) information in the plan does not replace the need for the City of Minneapolis to include more information on CSO in their comprehensive plan update.
5. The MMRWMO should work with its member communities on adopting and enforcing equitable erosion control standards.
6. The MMRWMO should consider monitoring the major outlets to the Mississippi River as part of the Council's (WOMP) program.

5b. **Department of Natural Resources Review.** On October 29, 1999 the Department of Natural Resources provided written comment on the Plan and recommended amendments to include:

1. The MMRWMO should correct the list of protected waters in the Plan.
2. The discussion of fish and wildlife resources was too brief.

5c. **Department of Health Review.** No written comments were provided to the Board.

5d. **Department of Agriculture Review.** Recommended approval of the Plan.

5e. **Pollution Control Agency Review.** No written comments were provided to the Board.

On December 30, 1999 and January 21, 2000 the MMRWMO responded in writing to the state review agencies concerns.

6. **Board Review.** On December 30, 1999 the MMRWMO submitted an amended Plan that addressed most of the above noted agency concerns. The Council was the only agency to provide the MMRWMO with additional comments regarding the amended Plan. Board and Council staff met MMRWMO staff on March 2, 2000 to address the remaining concerns to the Plan. The key remaining Plan element was to identify a realistic alternative way to pay for projects and programs other than a tax levy. The MMRWMO currently does not have the authority to levy, so in order to move forward with projects and implement the Plan an alternative funding method was needed. The MMRWMO agreed to address the issues and amended the Plan. The Metro Water Planning Subcommittee of the Board and Board staff met with the MMRWMO on April 11, 2000. The MMRWMO made a presentation of the final amended Plan and requested the Plan be approved by the Board at the next Board meeting.

7. **Highlights of the Plan.** The following are some of the highlights of the Plan as amended:

- a) The implementation of national and state goals and policies, and goals and policies unique to the MMRWMO;
- b) A wetland inventory and function and value assessment;
- c) A monitoring program of its storm water system including the major outfalls to the Mississippi River;
- d) Preservation and restoration of habitat, and the historic and cultural resources along the Mississippi River corridor in order to create a continuous corridor to enhance wildlife habitat, recreational opportunities, and water quality in the river;
- e) Extensive information, education, and public outreach program, including a website;
- f) A program to disconnect roof top rain leader connections from the storm water and sanitary sewer systems;
- g) A comprehensive procedure to rank and prioritize capital improvement projects; and
- h) Proposed capital improvement projects totaling an estimated 60 million over the next ten years.

CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Watershed Management Plan for the Middle Mississippi River Watershed Management Organization pursuant to Minnesota Rules Chapter 8410 and Minnesota Statutes Sections 103B.201, Subd. 9.
3. The Middle Mississippi River Watershed Management Organization Watershed Management Plan attached to this Order defines water and related land use problems within the MMRWMO's boundaries, possible solutions thereto, general objectives and policies of the MMRWMO, and an implementation program.
4. The attached Plan is in conformance with the requirements of Minnesota Rules Chapter 8410 and Minnesota Statutes Sections 103B.201 to 103B.251.

ORDER

The Board hereby approves the attached Plan dated December 1999 as the Watershed Management Plan for the Middle Mississippi River Watershed Management Organization.

Dated at Saint Paul, Minnesota this 26th day of April 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

BY: Kathleen Roer
Chair

Old Business

- 1. Lake Flooding in North
Central Minnesota
DECISION**

FY 00 EMERGENCY LAKE FLOODING FUNDING RECOMMENDATION SUMMARY

Background

At their January 26, 2000 Meeting, the Board appropriated \$100,000 of State Cost Share Program roll-over funds for erosion and water quality projects to improve and protect shoreline areas from record precipitation and lake flooding in north central Minnesota.

Issue

Applications for these funds were invited from the 15 SWCDs that were the most adversely affected by flooding. Twelve applications were received requesting \$223,380.

Recommendation

Northern region Grants Team members reviewed these applications according to the following priorities:

- Project must include some level of natural revegetation of shoreline.
- Projects benefiting public infrastructure
- Projects benefiting important fish habitat
- Projects improving water quality in important lakes by reducing phosphorous loading due to erosion and sedimentation

Applications are recommended for funding as follows:

Aitkin SWCD

Funds Requested - \$20,000

Recommended Funding - \$15,000

This is a two-phase project addressing both residential and agricultural contamination. Five hundred feet of residential shoreline stabilization and seven thousand feet of vegetated buffer will be established along priority lakes and rivers.

Locations – Wladimiraf Lake, Jenkins Lake, Flowage Lake, Portage Lake, Mississippi River, Rice River, Willow River, Morrison Brook

Becker SWCD

Funds Requested - \$4,200

Recommended Funding - \$4,200

The purpose of the project is to repair the slope along a section of shoreline, thus reducing sediment loading to the lake and to provide protection to adjacent structures that have lost 10 to 15 feet of shoreland.

Location – Strawberry Lake

Beltrami SWCD

Funds Requested - \$30,000

Recommended Funding - \$17,700

Project will bring financial assistance to lakeshore owners for implementing shoreline stabilization projects on prioritized sites that integrate toe protection with a natural upland vegetative buffer.

Location – primarily, Cass Lake

Cass SWCD

Funds Requested - \$25,000

Recommended Funding - \$15,000

Projects are designed to address extreme erosion problems created due to high water levels. Rock riprap and bioengineered methods will be used.

Locations – Cass, Leech, and Gull lakes

Hubbard SWCD

Funds Requested - \$59,130

Recommended Funding - \$20,000

Projects will reduce the amount of phosphorous and sediment loading that is entering lakes due to accelerated shoreline erosion caused by high water levels from wave and ice action.

Locations – Lake Beltaine, Big Sand, Eighth Crow Wing, Garfield Lake, Fishhook Lake, Eagle Lake, Lake George, Long Lake, Potato Lake

Itasca SWCD

Funds Requested - \$40,000

Recommended Funding - \$15,000

Project will stabilize and revegetate 1,600 feet of severely eroding shoreline to improve water quality and wildlife habitat. Funds will be used primarily to cost share with private landowners.

Location – Bigfork watershed

Lake SWCD

Funds Requested - \$1,100

Recommended Funding - \$1,100

Project will provide for placement of riprap onto three areas between CSAH 7 and Echo Lake. This will reduce the potential for erosion. Coordination with the DNR will be made for public access.

Location – Echo Lake

Lake of the Woods SWCD

Funds Requested - \$12,000

Recommended Funding - \$12,000

Project will reduce site erosion, sedimentation and phosphorous entering the lake, protect fish spawning habitat, and protect lakeshore property.

Location – Lake of the Woods

New Business

- 1. Shell Rock River Watershed
District Establishment
Hearing
DECISION**

DRAFT

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

DRAFT

In the Matter of the Establishment of the
Shell Rock River Watershed District in
Freeborn County pursuant to Minnesota
Statutes § 103D.221 Subd. 1.

**ORDER
ESTABLISHMENT
HEARING**

Whereas, more than fifty (50) resident owners residing in the proposed Shell Rock River Watershed District in Freeborn County filed a Petition dated March 8, 2000, with the Board of Water and Soil Resources (Board) on March 9, 2000, to establish a watershed district pursuant to Minn. Stat. § 103D.205, and;

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

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

FINDINGS OF FACT

1. **District Name.** The name of the proposed district shall be the "Shell Rock River Watershed District".
2. **Property Description.** The territory to be included in the watershed district is depicted in Exhibit A of the Petition and is the area in the Shell Rock River Watershed that is in Freeborn County, approximately 319 square miles in several communities, which includes land in the Cities of Albert Lea, Clarks Grove, Glenville, Hayward, Manchester, and Twin Lakes, and the Towns of Albert Lea, Alden, Bancroft, Bath, Carlston, Freeman, Hartland, Hayward, Manchester, Nunda, Oakland, Pickerel Lake, Riceland, and Shell Rock.

DRAFT

3. **Necessity for Watershed District.** The Establishment Petition lists degradation of water quality since the 1920's, erosion, sedimentation and best management practice issues.
4. **Contemplated Improvements.** The Establishment Petition lists the following:
 - a. Establish buffer zones and best management practices along tile and tile outlets, ditches and streams in the watershed.
 - b. Educational programs to improve water quality throughout the watershed area.
 - c. Possible replacement of current restrictions within the water outlet system on the Shell Rock River.
 - d. Possible restoration of aquatic vegetation.
 - e. Possible lake level management practices that best serve the needs of watershed district lakes.
 - f. Improved quality of shoreland practices and management to ensure the development is responsibly done.
 - g. Possible removal of sediment in areas that have lead to the degradation of the water body.
 - h. Ongoing testing for water quality and water clarity to measure results of improvement.
 - i. All other actions that have a positive impact on the many varied uses of the water resources within the Watershed District.
5. **Number of Managers.** The Establishment Petition specifies the proposed number of managers as seven (7).
6. **Signatures.** The Establishment Petition dated March 8, 2000, was filed with the Board on March 9, 2000. The Petition was signed by more than fifty (50) resident owners in the proposed watershed district pursuant to Minn. Stat. § 103D.205, Subd. 3 (4). On March 14, 2000, Dennis Distad, Freeborn County Auditor-Treasurer, pursuant to Minn. Stat. § 103D.211, certified that more than fifty (50) petitioners were resident owners within the proposed watershed district.

DRAFT

7. **Filing.** The Petition was filed with the Freeborn County Auditor, the Commissioner of the Department of Natural Resources, the Director of the Department of Natural Resources-Division of Waters, and the Board.
8. **Hearing Location.** The hearing should be held at the Albert Lea Senior High School "Cap" Emmons Auditorium, 109 West Avenue, Albert Lea, Minnesota. The facility is handicap accessible and located within the proposed watershed district.
9. **Hearing Panel.** Board members Char Kahler, Ginny Imholte, Allan Oehlke, and Jim Dahlvang should preside over the hearing and bring a recommendation to the Board.
10. **Hearing Time.** The pertinent parties have been coordinated with such that the hearing should be held on Monday, June 5, 2000, starting at 3:00 PM.

CONCLUSIONS

1. The Petition for establishment of the Shell Rock River Watershed District is valid in accordance with Minn. Stat. § 103D.205.
2. All relevant substantive and procedural requirements of law and rule have been fulfilled.
3. The Board has proper jurisdiction in the matter of ordering a watershed district establishment hearing.

DRAFT

ORDER

The Board hereby orders that the hearing on the Establishment Petition for the Shell Rock River Watershed District be heard by Board members Kahler, Imholte, Oehlke and Dahlvang on Monday, June 5, 2000, starting at 3:00 PM at the Albert Lea Senior High School "Cap" Emmons Auditorium, 109 West Avenue, Albert Lea, Minnesota.

Dated this 26th day of April, 2000.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

DRAFT

By: _____
Kathleen M. Roer, Chair