Crosscurrents

Managing Water Resources

Summary

Minnesota's environment and natural resource management system is complex. Nearly a dozen state agencies and special purpose districts, as well as counties, cities and townships play a role in management. Recognizing the complexity of the state's system, the Minnesota Legislature presented five goals and 11 outcomes and authorized a study of how services could be better delivered by reorganizing related functions.

Crosscurrents focuses on how the state's water management system can be changed to meet the Legislature's goals and outcomes. It reports recent improvements by agencies and special purpose districts, barriers to achieving further improvements and options for change. *Crosscurrents* draws on past studies, comments provided by citizens and local government personnel, and input from state agency representatives. It notes that the current system of advocacy agencies gives all interest groups a voice in decision-making and is generally preferred by citizens.

Agencies and local governments have made significant strides toward improving service delivery by working within existing systems. Agencies work cooperatively on planning, enforcement and assistance efforts and have struck partnerships with local governments and citizens. Partnerships among local governments also are common. Agencies have simplified permitting by using general permits, delegation and other approaches. All parties are continually developing better ways to get pertinent, understandable information to citizens.

Still, barriers to improvements exist. Cooperation, coordination and integration of efforts among agencies are complicated by inflexible funding, overlapping authorities and different data management and communications systems. Agencies have different regional structures, further hindering integrated service delivery. Lack of resources can hamper local efforts and special purpose districts are hard to modify, inhibiting local governments' ability to react to changing needs.

Crosscurrents' options for change build on Minnesota's current management structure, recognizing its important checks and balances and opportunities for citizen involvement. For state agencies, options include developing a multi-year plan to merge regional offices, integrating financial assistance programs and identifying additional permitting decisions that can be handled through simplified means. The Legislature could simplify procedures for modifying special purpose districts and county comprehensive local water plans could be used by local governments and state agencies for broader environmental purposes. Investments in technology could yield major improvements throughout the management system, as could a more full integration of sustainable development principles into the state's efforts.

Crosscurrents

Crosscurrents provides a snapshot of Minnesota's environment and natural resource management systems, focusing on how water-related functions can be changed and improved. The report highlights past reorganization efforts and the evolution of the current system. While individual agencies have made significant strides toward improving internal efficiencies and program effectiveness — and protecting the state's air, water and land — the main focus here is on issues within and among agencies and how services ultimately can be better delivered.

Crosscurrents draws on comments provided by citizens attending a series of eight regional public meetings sponsored by the Environmental Quality Board in 1995, as well as telephone interviews conducted with local government personnel in 1996. Input also was solicited from state agency representatives.

Recognizing the complexity and confusion of the state's system for citizens and decision-makers, the Legislature presented five goals and 11 outcomes and authorized a study of how services could be better delivered by reorganizing related functions. It also called for an examination of special purpose districts to identify ways to eliminate overlapping jurisdictions and duplicative efforts. The 11 outcomes fall into four broader areas that can be used to evaluate current efforts and develop options.

LEGISLATURE'S FIVE GOALS

- *Sustainable development*
- *Improved service delivery*
- *Prevention*
- *Citizen participation*
- *Reduced pollution*

Streamline and Integrate Appropriate Elements of the State's Efforts

Since water resource management efforts evolve within programs and agencies as new needs are identified, the state must routinely review if they are efficiently organized and interrelated. Programs and activities should be well coordinated and appropriate ones consolidated within and among agencies, capitalizing on the expertise of specific agencies. Flexibility should be enhanced to encourage cooperation between state and local governments to meet water resource needs. Efforts that can be better handled by local governments or the private sector should be modified and programs should be evaluated to see if they are still needed.

Tailor Efforts to Better Serve Customer's Needs

Customers' needs for information and technical assistance are increasing. These include local governments involved with local water planning and wellhead protection, citizens groups working to protect a lake or stream and people seeking permits. Pertinent information should be understandable and easily accessible. Service delivery systems should be decentralized so that customers can get permit requirements, resource quality and other information at various sites throughout the state.

Simplify Permitting and Other Decision-Making

Permitting can be complex, with several different permits and agency approvals required for what the public perceives as one activity. The state should simplify permitting through joint permit applications, better coordination among agencies and eliminating unnecessary reviews and paper work. Appropriate decisions should be delegated to regional offices and local governments.

Orient Efforts Toward Sustainable Development

Solving problems is much more difficult and expensive than planning ahead. To ensure that overall environment, natural resource and human needs will be sustained by today's actions and development decisions, the state should establish a policy-planning framework for sustainable development. It should encourage customers to adopt sustainable practices through polluter-pays principles that balance regulatory controls and financial incentives. Resource management should be based on appropriate natural resource characteristics, rather than political boundaries.

Minnesota's System

Minnesota's current system of water resource management is the result of more than 50 years of advances in the understanding of environmental problems, coupled with the public's desire for high quality resources and federal calls for action. The system is built upon existing institutions and reflects the state's strong political and cultural tradition of direct citizen participation in government and involving constituent groups in policy formation. Hazardous waste, wetland destruction, nonpoint source pollution, acid rain and other threats led to new authorities, programs and agencies. Actions of individuals became as much a focus as those of industries and municipalities. Local governments became important actors. Evolving understanding of the complexity of issues led to needed ties within and among agencies and between state agencies and local governments. Input from specialists was needed to solve problems, making it necessary for groups or teams of people to be involved in some decisions.

Agency Missions, Activities Demonstrate Diversity and Advocacy

Pollution Control Agency
Mission: Protect and improve Minnesota's air, water and land to secure the quality of life of its citizens.
Major water management activities: Dominates the water quality management arena and is responsible for implementing the federal Clean Water Act in Minnesota. Portions of the federal Resource Conservation and Recovery, the Comprehensive Environmental Response and Liability and Clean Air Acts, all administered in Minnesota by the PCA, also deal with water quality.

Department of Health
Mission: Protect, maintain and improve the health of Minnesota citizens.
Water activities: Deals with health risk, wells, wellhead protection and drinking water and has responsibilities through the federal Safe Drinking Water Act.

Department of Natural Resources
Mission: Serve present and future generations of Minnesotans by professionally managing our rich heritage of fish, wildlife, waters, wetlands, forests, prairies, minerals, public lands and other natural resources to preserve and enhance our environment.
Water activities: Administers water quantity and other water-related resource management efforts, including programs affecting fish and wildlife habitat, recreation and shore-land management.

Department of Agriculture
Mission: Foster and maintain a diverse agricultural industry that is economically profitable and environmentally sustainable, to protect public health and safety, to provide consumer protection and to assure orderly commerce in agriculture and food.
Water activities: Regulates pesticides and fertilizers and administers sustainable agriculture and integrated pest management programs. The MDA is responsible for implementing the federal Insecticide, Fungicide and Rodenticide Act in Minnesota.

Board of Water and Soil Resources
Mission: Provide leadership enabling local governments to properly manage water and soil resources and to help all citizens be stewards of our irreplaceable natural resources.
Water activities: Provides financial, technical and administrative assistance to counties, soil and water conservation districts, watershed districts, watershed management organizations and other local governments and coordinates activities among local, state and federal governments.

Environmental Quality Board
Mission: Lead Minnesota environmental policy by anticipating and responding to key issues, by providing appropriate review and coordination, by serving as a public forum, and by developing long-range strategies to sustain and enhance Minnesota's environmental quality.
Water activities: Responsible for coordination and water policy integration among state agencies and local, regional and federal bodies. Water duties are assigned to its Water Resources Committee.

Minnesota Analyzes its Structures

Reorganization of water management efforts has been considered many times. A 1986 Minnesota House Research Information Brief, *State Water Management: Reorganization and Consolidation*, documented more than 12 laws changing water management and 14 studies of water management reorganization. Major actions since then include creation of the Board of Water and Soil Resources in 1987, which consolidated three existing boards, and the Commission on Reform and Efficiency 1993 recommendations on environmental reorganization. Much emphasis throughout these efforts centered on water planning and local or substate activities.

Coordination generally has gotten more emphasis in evaluations of Minnesota's water managements structures then consolidation or reorganization. In 1970, the State Planning Agency's Water Resources Coordinating Committee issued a report identifying three major goals for water management: prepare sound water resource plans, coordinate state programs and policies, and present a united position in water management involving state and federal government. That same year, the Minnesota House of Representatives Land and Water Resource Committee issued an interim report recommending legislation to create a 12-member water resources coordinating committee chaired by the Commissioner of Conservation to plan, develop and manage water resources in the state.

The University of Minnesota Center for Studies of the Physical Environment recommended three possible courses of action for water management in the state in a 1973 report: consolidating the number of water agencies, clearly defining the responsibilities of each agency, or establishing a policy coordinating committee. The idea of a permanent water resources coordinating body was suggested again in 1979, this time in a study by the Water Planning Board. By 1984, a State Planning Agency report recommended that the Environmental Quality Board establish a permanent water and related land resources subcommittee to coordinate water policy and discussion. A year later, a report from the same agency argued that a consolidated "superagency" was not necessary for various agency groundwater responsibilities but continues the theme that a coordinating body was needed to address certain issues.

Occasionally, some reports argued for greater consolidation rather than coordination in water management. In 1993, a report by the Commission on Reform and Efficiency noted the fragmented, unresponsive, overly prescriptive, time-consuming and costly nature of the environmental services delivery system. It argued that most state environmental functions should be consolidated into two agencies, a Department of Resource Management and a Department of Environmental Protection. It recommended that a secretary of the environment

General and Special Purpose Districts Have Major Roles

Counties, cities and towns are responsible for zoning, land use decisions, local ordinances and permit actions that can affect water resources. Counties outside the Twin Cities area have authority to develop and implement county comprehensive water plans.

Soil and Water Conservation Districts are responsible for conservation projects dealing with land, surface water and ground water.

Watershed Districts have broad authority to address a wide variety of water-related issues, including flood control and water quality.

Lake Improvement Districts are generally established to preserve the natural character of a particular lake and its shoreland environment.

Watershed Management Organizations develop watershed management plans for the minor watershed units wholly located in the seven-county metropolitan area.

Lake Conservation Districts have a variety of regulatory powers over a lake, including power to regulate the types of boats and motors used, times and places of use and speeds.

oversee both agencies and report to the governor.

Several studies also have looked at more specific issues of merging particular agencies. A 1971 study from the office of Governor Levander recommended placing the Water Resources Board within the Department of Natural Resources, which was echoed two years later in Governor Anderson's environmental message to the Legislature. In 1981, the Southern Minnesota Rivers Basin Board recommended that it merge with the Water Resources Board and the Soil and Water Conservation Board. This same merger was advocated in two studies in 1985, one from the State Planning Agency and one from the Department of Agriculture.

Need Emphasized for Overall Planning

Many past water management reorganization efforts centered on how the state could best accomplish water resource planning. In 1967, the State Planning Agency formed a Water Resources Coordinating Committee to carry out the coordination required by the federal Water Resources Planning act of 1965. The federal act provided the impetus for a state framework water and related land use plan, federally funded river basin studies and river basin commissions. The state water framework plan was supposed to provide the guidance for federal projects as well as for local efforts. However, while water assessments were prepared, the framework plan was not.

In 1973, the Minnesota Water Resources Council was created by Executive Order to coordinate programs and activities necessary for proper land and water planning. It met the coordination requirements of the federal Water Resources Planning Act and was chaired by the Department of Natural Resources. However, with no funding, progress was limited. The legislation gave the DNR the responsibility to develop a statewide framework water plan by 1975, but it was not prepared. A 1976 Executive Order assigned responsibilities for preparing the framework water plan to the Minnesota Water Resources Council.

In 1977, prompted by a severe drought, the Legislature created

A 23-Year History of Water Management Reorganization Studies

Year	Title
1970	*Minnesota Water and Related Land Resources: First Assessment*, State Planning Agency, Water Resources Coordinating Committee
1970	*Minnesota House of Representatives Land and Water Resources Committee Interim Report, 1969-1970*
1971	*Natural Resources Organization for Minnesota*, Office of Governor Levander, Laurence Koll and David Durenberger
1972	*Recommendations,* House\Senate Joint Subcommittee on Water Resources.
1973	*Governor Anderson's Special Environmental Message to the 68th Session*
1973	*Environmental Decision-Making in Minnesota: Summary and Alternatives,* University of Minnesota Center for Studies of the Physical Environment
1979	*A Framework for a Water and Related Land Resources Strategy for Minnesota,* Water Planning Board
1981	Southern Minnesota River Basin Board Proposal
1981	*Special Study on Local Water Management,* Water Planning Board
1984	*State and Local Water Planning,* Issue Team Report, State Planning Agency
1985	*Ground Water Management Strategy,* Issue Team Report, State Planning Agency
1985	*Water Agency Merger Study,* State Planning Agency
1985	*Metropolitan Development Guide Chapter: Water Resources Management, Part 3,* Metropolitan Council
1985	*Report of the 1985 Interim Study Group,* Department of Agriculture
1993	*Reforming Minnesota's Environmental Services System,* Commission on Reform and Efficiency

and funded the Water Planning Board whose responsibilities included creating a framework water and related land resources plan, coordinating water activities and involving citizens. *A Framework for a Water and Related Land Resources Strategy for Minnesota* was published in 1979. It recommended a permanent water coordinating body with adequate authority. But President Reagan terminated the federal Water Resources Council and the federal-state river basin commissions in 1981, lessening federal and state emphasis on river basin approaches.

The functions of the Water Planning Board were merged into the Environmental Quality Board in 1983, making it the state water coordinating body. As noted in *State Water Management: Reorganization and Consolidation,* "it is interesting to note that the role of coordinating water planning, which started in the State Planning Agency through the Water Resources Coordinating Committee in 1967, was back in the SPA by 1983 through the auspice of the EQB."

The EQB developed biennial water resources priority recommendations for state and legislative actions, facilitated interagency efforts on the 1989 Ground Water Protection Act and prepared the Minnesota Water Plan to guide state efforts in 1991.

The need for overall planning was again emphasized when the Legislative Water Commission called for greater coordination in its 1992 report focusing on the state's water management needs for the year 2000. Noting the complex system of water management at both the state and local levels of government, the commission stated that the overall water management system must be better focused and coordinated so that it is accountable and understandable and that people know who is responsible for each facet of water management. They recommended that the EQB oversee the development of a coordination strategy for water management in the state, involving the various interested parties. Yet by 1995, the Legislature had changed the water plan requirement from five years to ten, with the next plan due in 2000, transferred several water-related assessment authorities to other agencies, and allowed the Legislative Water Commission to sunset.

Management Evolves at Local Level

Over the years, the state recognized that water resource management and protection require active involvement of local units of government and individuals. Early emphasis centered on county and watershed-level efforts, but later broader scale efforts were emphasized as well. Significant attention in reorganization studies and legislative action has centered on local governance and planning.

In 1937, Minnesota passed the enabling legislation for soil conservation districts and a Minnesota oversight board to control soil erosion based on a federal model. The model suggested local districts have authority for land use regulations and use watershed-based planning, but the legislation did not include land use authorities. The state's districts generally pursue voluntary compliance and county-based plans.

Water Management History

This timeline covers major changes in Minnesota's management structures.

pre-1930

1919: Department of Agriculture created; merged in 1923 with Dairy and Food Department, created in the late 1800s

1930

1931: Department of Conservation created

1937: Soil and Water Conservation Board created and soil and water conservation district law enacted

1940

1945: Water Pollution Control Commission established

The Water Resources Board was created in 1955, along with enabling legislation for watershed districts. These districts had the necessary taxing and other authorities that soil conservation districts lacked to qualify for technical and financial assistance under federal public law 566, which provided funding for projects such as drainage and flood control.

During the 1970s, there was much interest in land and water issues. In 1971, the Southern Minnesota Rivers Basin Board was established to develop a comprehensive plan for the Minnesota River Basin and the tributaries to the Mississippi River in southeastern Minnesota. At the same time, a joint Minnesota legislative subcommittee reported that the system for land and water in Minnesota had become so complicated that few had a clear understanding of the entire system. They recommended creating a citizen board charged with reviewing the multiplicity and fragmentation of special purpose districts and abolishing the Water Resources Board and State Soil and Water Commission.

Another study in 1971, *Natural Resource Organization for Minnesota,* discussed the need for coordination and state oversight of land and water activities. It recommended forming a Natural Resources Council and including the Water Resources Board and State Soil and Water Commission in the Department of Natural Resources. The Legislature brought the State Soil and Water Commission into the DNR in 1971, but left the Water Resources Board independent.

Three additional studies — by the Southern Minnesota Rivers Basin Board in 1981 and the State Planning Agency and Department of Agriculture in 1985 — recommended combining the Water Resources Board, the State Soil and Water Commission, then known as the Soil and Water Conservation Board, and the Southern Minnesota Rivers Basin Board. While the Soil and Water Conservation Board was transfered to the Department of Agricultural in 1983, it was 1987 before the Board of Water and Soil Resources was created from the authorities of the three boards.

Several studies and legislative initiatives recognized the need to plan and manage water resources locally. The Water Planning Board recommended in a 1981 study, *Special Study on Local Water Management*, that counties take a leadership role in local water management. The Comprehensive Local Water Management Act was enacted in 1985, providing for county-led, voluntary local water planning. Fifty-two counties formed six groups for local water planning purposes and received state assistance to begin plans. Today all counties outside the Twin Cities metropolitan area have local water plans.

The Metropolitan Water Management Act, passed in 1982, required watershed-based planning in the Twin Cities Metropolitan Area by watershed districts or watershed management organizations. In 1987, amendments to the act gave counties in the Twin Cities voluntary ground water planning authorities.

1950

1955: Water Resources Board created and watershed district law enacted

1960

1967: Minnesota Pollution Control Agency created, replacing the Water Pollution Control Commission established in 1945

1967: State Planning Agency forms Water Resources Coordinating Committee

1970

1971: Name changed to Department of Natural Resources from Department of Conservation

1971: Southern Minnesota Rivers Basin Board established

1973: Minnesota Water Resources Council created

1973: Environmental Quality Council created

1977: Water Planning Board created

1977: Initiated in 1926, name change creating the Department of Health from State Board of Health and Vital Statistics, created in the late 1800s

1980

1983: Water Planning Board merged into the Environmental Quality Board

1985: EQB forms Water Resources Committee

1987: Board of Water and Soil Resources created from Water Resource Board, Soil and Water Conservation Board, and Southern Minnesota Rivers Basin Board

1990

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.

Improvements

Many actions already have been taken or are underway that directly relate to the legislative outcomes. Interagency and intergovernmental cooperation on planning, enforcement and technical assistance has been increasing. Changes in permitting are yielding more simplified processes. More decisions are taking place outside St. Paul. Examples of these and numerous other improvements are discussed here and detailed in the inventory of improvements section of *Crosscurrents*. These improvements offer ideas for possible continued courses of action.

State agencies have worked together to manage water resources for many years — from nonpoint source pollution efforts in the 1970s to current efforts focusing on water and wastewater infrastructure needs. Cooperation has increased in recent years as the interrelationship of issues and programs became more apparent. The Environmental Quality Board established its Water Resources Committee in 1985 to highlight the need for interagency approaches to water resource management.

Cooperative Planning Efforts Underway

Comprehensive local water plans are encouraging cooperation among local governments. Counties are responsible for preparing local water plans, but soil and water conservation district staff often play a key role and other units, including neighboring jurisdictions, have opportunity for input. Some counties are including overall water resource needs and responsibilities for all units of government in their updated plans, eliminating duplication, overlap and competition for funding. Many parts of the state report great strides in coordination and cooperation since beginning local water planning.

In other areas, however, additional improvements are needed. Some counties report almost no coordination with cities. Isolated incidence of insufficient cooperation between counties, soil and water conservation districts and watershed districts also are noted, as was the need for better coordination with the Minnesota Extension Service on education. Independent taxing or funding authority appears to work against coordination. The comprehensive local water plan should provide the vehicle for local units to work out these differences.

State-level cooperative planning often stems from federal mandates. These mandates frequently call for state rather than agency plans. The federal Insecticide, Fungicide and Rodenticide Act, and subsequently state law, required the Department of Agriculture to prepare a pesticide management plan with input from many interests. The Pollution Control Agency was charged with preparing the state ground water protection strategy, the comprehensive ground water protection program, framework and state assessment and the nonpoint source management plan, all through requirements of the federal Clean Water Act. The Department of Health is charged with the state's wellhead protection program, which depends on elements of the pesticide management plan and comprehensive ground water protection program for success. Sometimes agencies worked through the Water Resources Committee on these efforts.

Other state-level efforts come from legislation and agencies. Cooperative planning efforts assigned by the Legislature to the Environmental Quality Board and other agencies include the state water resource monitoring plan, water quantity and quality assessment reports and identification of water resource research needs. Local water plan review also calls for involvement of multiple agencies.

Some efforts come from needs identified by agencies and the Water Resource Committee. These include the evaluation of water and wastewater infrastructure needs and current efforts to develop unified water resource monitoring needs. The Water Resource Committee showed its potential as a forum for pulling agencies together for the state ground water protection strategy and Ground Water Protection Act of 1989. Many other legislative issues are routinely discussed and worked on each year by the agencies, including integrated capitol budget requests and consolidated requests to the Legislative Commission on Minnesota Resources.

Compliance, Enforcement and Assistance Offered Cooperatively

Agencies have instituted several efforts to pool resources to address water resource management. These recognize and draw on the technical and human resources each agency has to offer in meeting state needs. Joint efforts between the Pollution Control Agency and the Department of Natural Resources capitalize on the large number of DNR field staff to extend the PCA's abilities. Efforts include joint issuance of field citations for illegal disposal of wastes and joint involvement in

investigating and enforcing feedlot-related environmental violations. The Pollution Control Agency and the Department of Health coordinate their inspection of wastewater treatment facilities serving mobile home parks, resorts and campgrounds.

Efforts also have progressed to integrate financial assistance. The Board of Water and Soil Resources, the Pollution Control Agency and the Department of Natural Resources, for example, have consolidated some grants to local governments and grant administration into a block grant managed by the board. In addition, all water resource agencies are involved in reviewing requests for funding through the PCA's Clean Water Partnership and many review the board's challenge grant applications.

The Department of Agriculture delegates regulation of water applied pesticides to the Department of Natural Resources. The DNR issues permits and the departments coordinate compliance and enforcement efforts.

Interagency cooperation on the wellhead protection program covers data, technical assistance and guidance documents for managing contaminant sources. It includes the Pollution Control Agency and departments of Health, Agriculture and Natural Resources.

Partnerships Struck with Local Governments and Citizens

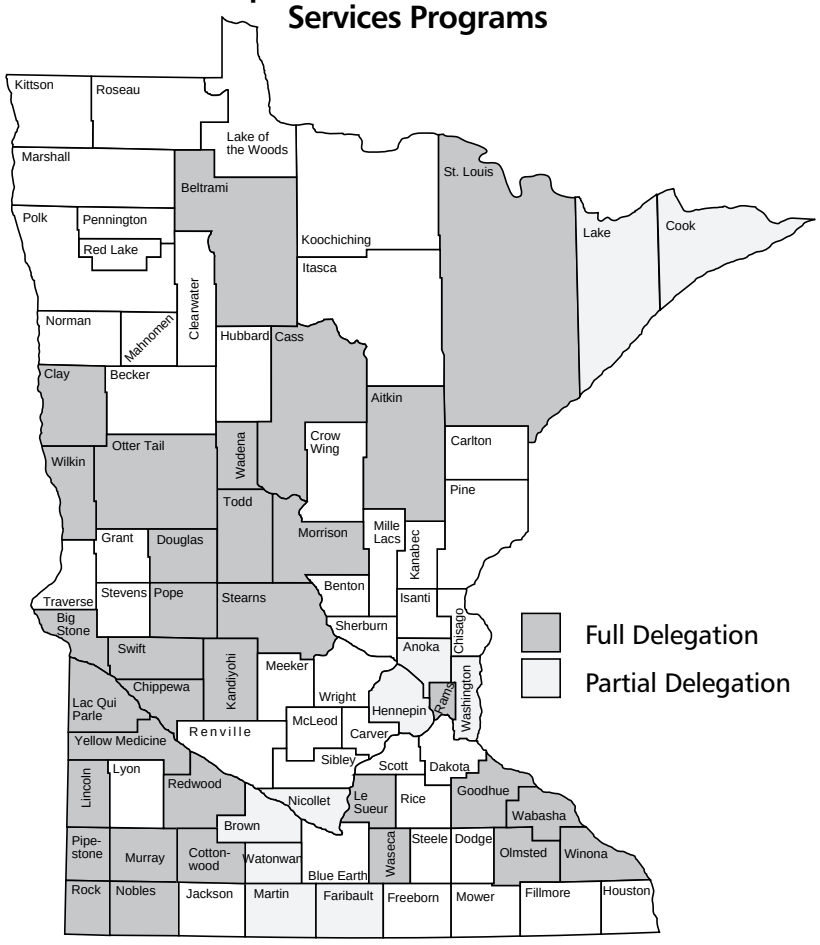
Agencies work closely with local units of government and citizens to accomplish goals. These efforts can streamline and integrate activities, decentralize programs and increase citizen's understanding of environmental issues.

The Department of Health forms partnerships with counties in running environmental health services and state well programs. The food, beverage and lodging program and manufactured home park and recreational camping area program are handled by 33 county health departments through delegation agreements. Another 10 handle just the food, beverage and lodging program. Nine counties in southeastern Minnesota handle portions of the state well program and an addition three counties are working with the department on agreements.

The Pollution Control Agency's partnership with the state's soil and water conservation districts calls for district assistance in inspecting construction sites for compliance with the agency's storm water permit program for construction activities. Another PCA effort delegates feedlot program authorities to counties. Other permitting efforts involving partnerships with local governments include the Department of Natural Resources' general permits for county bridge and culvert projects.

Several efforts unite agencies, local units of government and citizens in monitoring. Both the PCA and the DNR use citizen volunteers to help monitor lakes. The DNR has formed

Counties Operate State Environmental Health Services Programs



Source: Minnesota Department of Health

partnerships with local governments, such as the Heron Lake Watershed District, for stream gaging services and hydrologic modeling. The department's observation wells are measured by soil and water conservation districts under a cost-sharing arrangement. Districts also help manage the state's high density precipitation monitoring network, which involves a network of more than 1,600 volunteers. Ground water quality monitoring cooperatives have been developed between several state agencies and Minnesota counties, including Wadena and Stearns counties and nine counties in the southeastern part of the state. The Department of Agriculture cooperates with several counties on ground and surface water monitoring projects.

Agencies and local units also cooperate to solve problems. The Minnesota River Action Plan and Minnesota River Implementation Plan, spearheaded by the PCA, pulled together state and federal agencies, local governments and citizens to address water quality problems on the river. In turn, local governments developed the Minnesota River Joint Powers Board to protect and rehabilitate the river, recognizing that actions would be needed by all governments in the river basin.

The Department of Agriculture forms partnerships with local units of government to deal with waste pesticides and empty pesticide containers. Waste pesticides are collected annually in at least half of Minnesota's counties and empty container collection sites are available in all counties.

Partnerships Among Local Units Abound

Cooperative efforts are common among local units of government throughout the state. Units draw on each others strengths and roles vary greatly. Strong, multipurpose watershed districts in northern Minnesota often take the lead on projects, providing engineering and administrative services. In southern Minnesota, where watershed districts are smaller, soil and water conservation districts might supply contracting and administrative services for watershed districts. The state's multidistrict approach allows each area to devise arrangements that fit local needs.

Watershed districts, soil and water conservation districts, counties and cities work jointly on projects to solve water quality problems. Heron Lake in the southwest, the Wild Rice River in the northwest, Knife River in the northeast, Zumbro River in the southeast and North St. Paul in the Twin Cities area are but a few of the examples of local units working together to identify problems, develop funding proposals and define responsibilities. Team efforts for pesticide container collection also are common, with each area working out the unique structure that suits it best.

Local units also consult with neighboring jurisdictions through formal and informal groups. Examples include the Lake Superior Association of Soil and Water Conservation Districts and the Southeast Minnesota Water Resources Board.

Local units share staff and provide technical assistance to each other. Many counties arrange for soil and water conservation district preparation of local water plans and assistance in wetland, feedlot and other programs through formal and informal arrangements. Sometimes staff have duel appointments with a county and district. Other times district staff act as agents of a county. Some counties rely on soil and water conservation districts for agriculture-related and water quality expertise and some watershed districts rely on them to review erosion and sedimentation aspects of permits. Local units often share technical staff. For example, in northeastern Minnesota, a group of districts share an engineer hired with state funds. Other examples of shared technical staff among districts and counties include foresters and computer and wetland specialists.

Information Packaged for Customers

Agencies and local units of government are continually developing better ways to get pertinent, understandable information to citizens. Methods include reports, one-on-one contact and use of new information technology. In addition, many soil and water conservation districts serve as contact points for the public, directing them to the services and agencies they need.

The Department of Health develops manuals to help citizens interpret their regulations and sends newsletters to regulated parties. It also provides information on water quality in private wells to consumers at fairs throughout the state and at Department of Agriculture sponsored nitrate testing clinics. These clinics are coordinated with local governments and provide opportunities for agencies to deliver information

to the public and answer questions on a variety of ground water issues.

The Pollution Control Agency's *Ground Water: A Directory of Minnesota's Programs and Resources*, prepared jointly with the other water resource-related agencies, offers a good example of how programs of multiple agencies can be presented in a unified manner. The PCA's electronic bulletin board service provides public access to agency fact sheets, program guidance and lake information.

The Department of Natural Resources' *Water Talk* keeps local governments and the public informed about water programs and issues. The department also publishes data summaries and posts information on the University of Minnesota Soils Department's World Wide Web site.

The Minnesota Department of Agriculture's home page on the World Wide Web offers a good example of how information can be organized by issue instead of agency to serve customers. In addition to an overview of the department, a phone list of agency employees, a fresh produce directory, weekly crop weather reports, and a collection of department press releases, it contains a feedlot and manure management directory with a variety of information citizens might otherwise have to get from several agencies. The page includes:

- general information on feedlot permits, manure storage systems and manure treatment
- when feedlot permits are required and where the permits are available
- when feedlots are classified as a pollution hazard
- tips for filling out forms and a list of contacts, educational resources and references
- sources of financial assistance for conservation projects

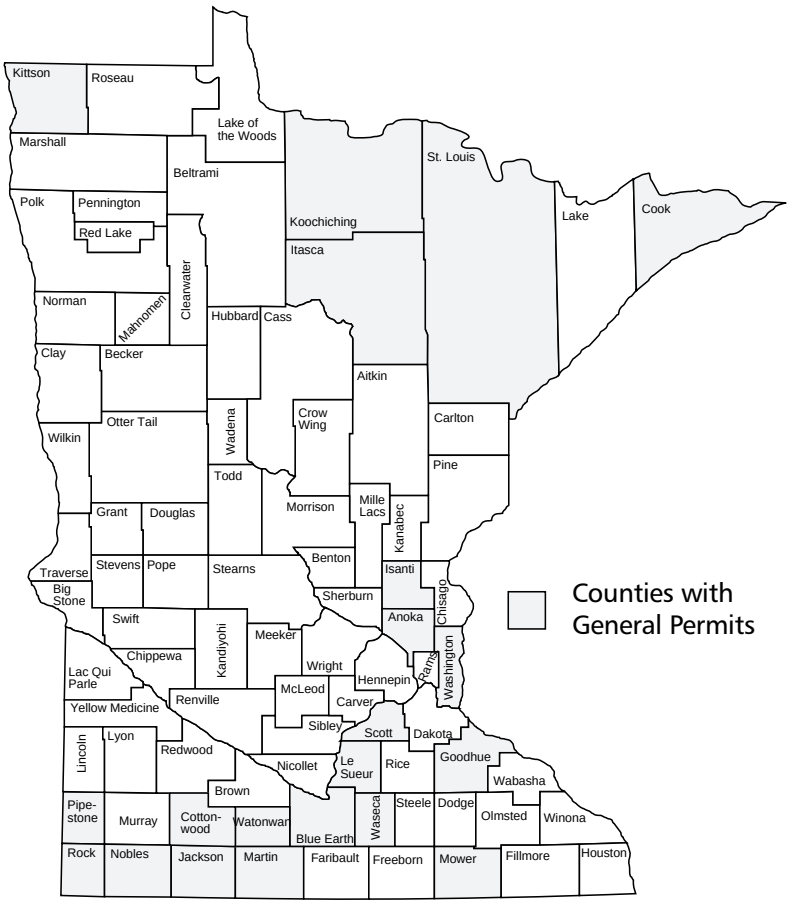
Many local units of government also are developing Web sites to better serve customers. The Minnesota Association of Watershed Districts is developing a Web site that will include a separate page for each watershed district.

The Minnehaha Creek Watershed District's extensive Web site contains the Combined Joint Notification Form/Water Resource Application used by the district and other agencies for proposed water or wetland project. Applicants can download the form over the Internet, eliminating the need to go to the office or request it by mail. Electronic links to other permitting

Pollution Control Agency Issues General Permits

- Stormwater Industrial
- Stormwater Construction
- Non-contact Cooling Water
- Dredge
- Ground Water Pumpouts
- Wetscrubbers
- Water Treatment

Twenty-one Counties Have General Permits from DNR for Bridge and Culvert Projects



Source: Minnesota Department of Natural Resources

agencies also are made available. Reports, summaries of current projects, overall goals, minutes and schedules of meetings, and district rules and regulations all are available online. Developers planning the storm water management component of a project, for example, can learn the district's general storm water policies, the decision criteria used for storm water plans, and exhibits that must be submitted with a plan.

Norman Soil and Water Conservation District is developing a Web site containing the county local water plan, district activities and other information and is using computers to help landowners understand problems and make good decisions. The district has scanned U.S. Department of Agriculture aerial photos onto computer disks. Landowners can get copies of the files on their property on disk to study in the office or on their home computers, giving them the time to see and understand the effects of their operations.

Permitting Simplified

Both the Pollution Control Agency and Department of Natural Resources use general permits to simplify permitting, but the approaches are different. The PCA's general permits apply to categories of permittees whose operations, emissions, activities, discharges or facilities are the same or substantially similar. Applicants request these permits the same way as an individual permit, but decisions come more quickly. Under the general permit for storm water, project proposers can start work 48 hours after filing their application. The PCA's Division of Water Quality currently has more than 3,400 general permits in force, 88 percent of these cover storm water.

The Department of Natural Resources' general permits are issued to local units of government and allow more than one project to be conducted under a single permit. These permits were authorized by the Legislature in 1994 for "classes of activities having minimal impact upon public waters."

Bridge and culvert projects were identified as the most suitable activity for these permits. As of November 1996, 21 counties had received general permits for bridge and culvert projects and additional counties are working with the department to qualify. The ability to issue general permits to the general public was added in 1996. The DNR is identifying potential areas for these types of general permits.

The Department of Natural Resource, the Board of Water and Soil Resources, the U.S. Army Corps of Engineers and local governments have developed a joint permit notification form for projects affecting wetlands. Applicants can fill out one form and submit copies to all parties.

The Pollution Control Agency's project XL offers businesses great potential for simplifying compliance with environmental regulations. Authorized by the U. S. Environmental Protection Agency and a 1996 Minnesota law permitting pilot regulatory reform initiatives, project XL or eXcellence in Leadership, gives companies greater flexibility in meeting environmental goals in exchange for better environmental performance. The PCA and other agency permits covering air, water and land can be combined and designed to allow businesses to change their operations as needed. While the PCA's first XL pilot project with 3M has been suspended, the concept holds promise.

Decision-Making and Staff Disbursed

The Department of Natural Resources has been systematically decentralizing decision-making. While the number of Division of Waters staff outside St. Paul has held steady at 51 for the last six years, decisions made in regional and area offices and the field have increased. Ninety-five percent of permit decisions are made in regional offices, following changes instituted in the late 1980s. Permits with the potential for significant effects, such as those dealing with hazardous waste sites or for large appropriations, are still made in the central office.

In 1993, the Department of Natural Resources began a pilot project to further delegate decision-making to area offices and the field. Three areas — Grand Rapids, Fergus Falls and Spicer — were selected to examine the benefits of delegating select permit category areas from the regional to the area level. Also

DNR Delegates Decisions to Area Offices for Water Permits

Protected Waters:
- Filling
- Excavation
- Structures
- Water Level Controls
- Bridge and Culverts
- Intakes and Out Falls

Water Appropriations:
- Temporary Water
- Other Limited Classes

involved is development of a series of permits where proposed projects meeting preapproved site and dimension conditions can be immediately permitted in the field.

The Pollution Control Agency began several actions in the early 1990s to move additional staff and activities to its regional offices. The agency formed a Regional Operations Division and regional compliance units to focus on regional service delivery and prepared a report and policies on expanded regional office roles. Staff covering such areas as leaking underground storage tank cleanup, tank compliance and assistance, and information and education were moved or added to regional offices.

Actions Oriented Toward Resources and Sustainable Development

Many efforts of state agencies and local units of government orient actions toward resources. Indeed, watershed, lake improvement and lake conservation districts are specifically designed for this purpose. The departments of Natural Resources and Agriculture and the Pollution Control Agency all use ecologically based regions for assessing problems and developing solutions. While their unique regions do not match, they are able to cooperatively deal with problems and deliver services. Joint state and local government efforts to focus on problems in the Minnesota River basin led to more than $5 million in cost-share funding for conservation practices in the basin in 1995. Approximately half of the Department of Agriculture's best management practice loan funds went to the basin.

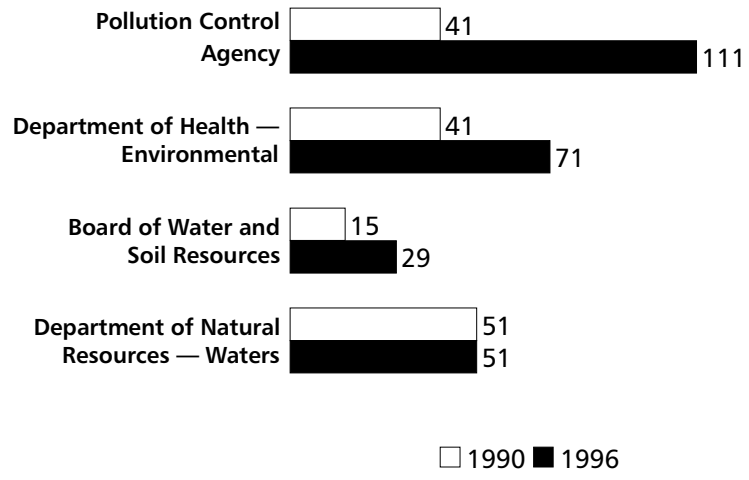
Not all agencies' efforts fit natural resource boundaries, and geographical areas appropriate for one problem or program might not be the same as that for another. For example, the area of concern for protecting a community's well could be quite different than the one to protect the quality of a nearby lake. State and local governments must form situational alliances with communities of common interests to accomplish goals, rather than organize according to one preset geographic structure.

Minnesota's efforts in sustainable development are recognized nationwide and are preceding rapidly. Begun in 1993, the state's efforts include recommendations from more than 100 citizen leaders on how the state can enhance economic opportunities and community well-being while protecting and restoring its natural resources. Legislation in 1994 created a 17-member Sustainable Economic Development and Environmental Protection Task Force composed of citizens and legislators. It recommended principles, goals and strategies for more coordinated, cost-effective and sustainable approaches to development.

The Minnesota Round Table on Sustainable Development is currently identifying the most important things the state can do to move toward sustainable development and setting priorities for action. It was approved by the Governor in January 1996 and consists of 30 leaders in business, civic and environmental organization.

Legislation in 1996 calls for Minnesota Planning to publish model ordinances and a planning guide for sustainable development at the local level. It also directs state agencies to describe how their mission and programs reflect and implement Environmental Quality Board adopted principles of sustainable development, or how they could be changed to do so. The EQB is to report agency findings to the Legislature by January 1997.

Agencies Increase Number of Field Staff



Source: Data provided by individual state agencies

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.

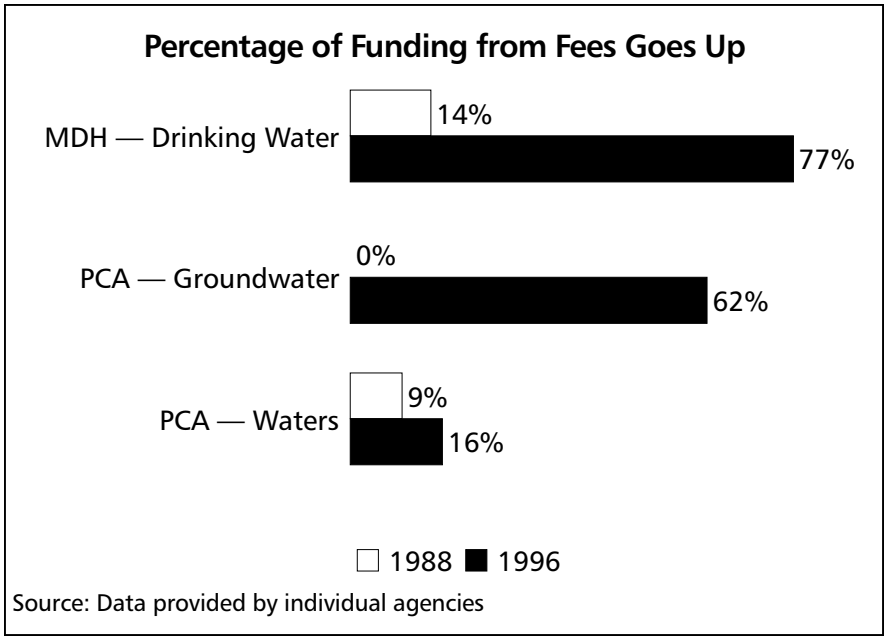
Agency Funding Can Restrict Change and Cooperation

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.



Source: Data provided by individual agencies

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 communicate 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.

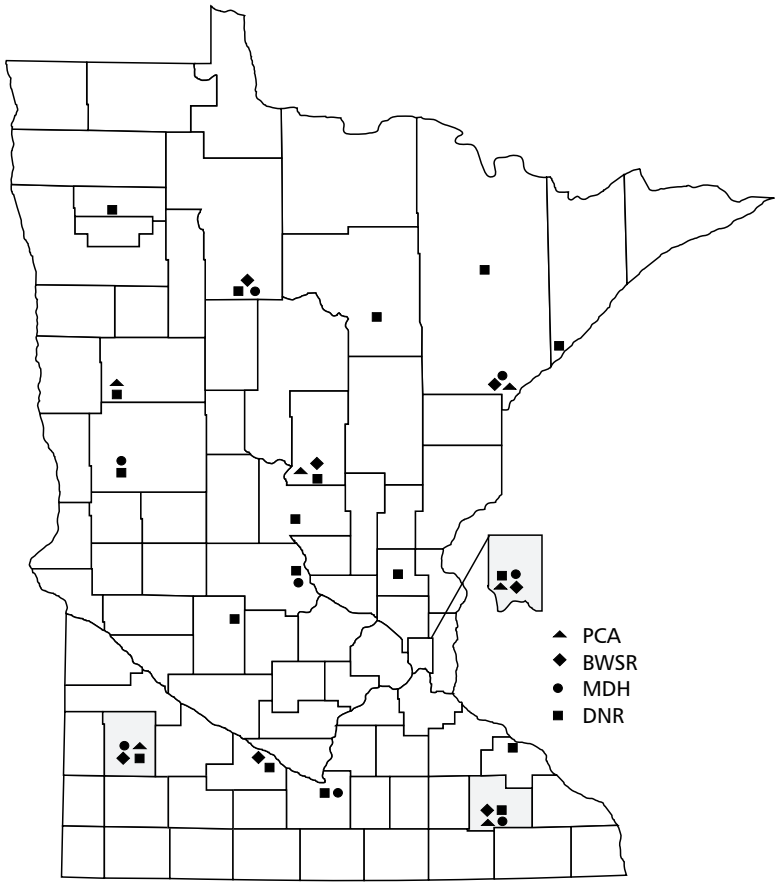
Memoranda include agreements among the Department of Health, the Pollution Control Agency, and the Departments of Agriculture for wellhead protection, and between the PCA and the Department of Health for individual sewage treatment systems and release of hazardous substances. Agreements between the PCA 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

Locations of Agency Offices Show Little Overlap



Source: Data provided by individual state agencies.
See map on page 12 for county names.

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 is 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.

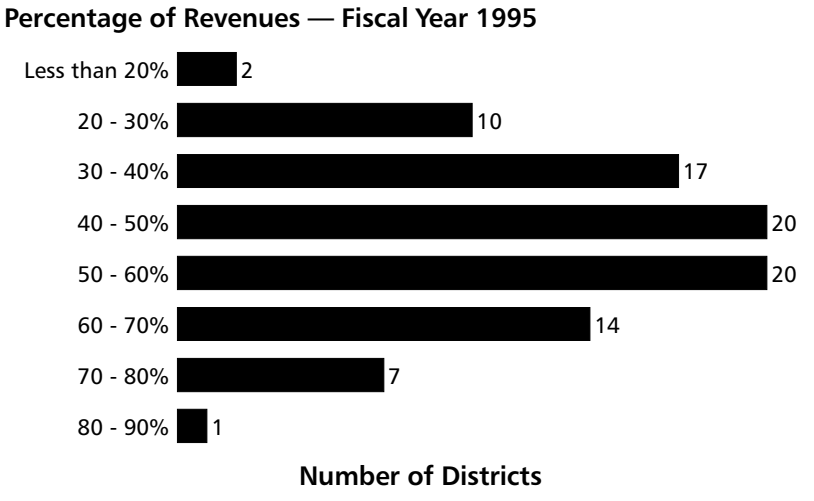
Special Purpose Districts are Difficult to Modify

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



Source: Board of Water and Soil Resources

Options

Changes are needed to Minnesota's water resource management systems to make them more streamlined, simplified and responsive to customers' needs and sustainable development principles. Findings of past studies highlighting the need for better coordination, focus and planning are as valid today as they were in the 1970s and 1980s. The past improvements and barriers noted in *Crosscurrents* can provide building blocks for options to address the Legislature's goals and objectives, as well as these past findings. *Crosscurrents*' 10 options are directly related to water resource management efforts, but, in many ways, apply broadly to the state's environmental and natural resource management systems.

1 Continue to Build on the Current Management Structure

Citizens attending the Environmental Quality Board sponsored meetings and contacted as part of *Crosscurrents* expressed little desire for major changes in the state's current water resources management systems. They believe that little could be accomplished by combining all efforts within one agency and are concerned that the checks and balances and opportunity for citizen input provided by the multiagency approach would be lost. Coordination within agencies already can be difficult and local units report having to deal with multiple sections and divisions that sometimes are unfamiliar with each other's programs. Combining and enlarging agencies could serve to exacerbate these problems. Financial costs of combining agencies and their regional structures would be high.

In addition, there is no clear evidence that other organizational structures would better achieve outcomes. Structures across the county vary — from a multiagency approach being fashioned by Michigan out of a previously more unified system to Wisconsin's more all encompassing Department of Natural Resources. However, states with more consolidated structures still tend to leave key parts of environmental protection out. Wisconsin's DNR, for example, does not include the pollution control programs of the state's agricultural department. Even more agencies must be involved to address sustainable development, including departments dealing with transportation and economic development. As more of the interconnections among issues are realized, coordination, unified state missions and visions become the only workable alternative to achieving outcomes.

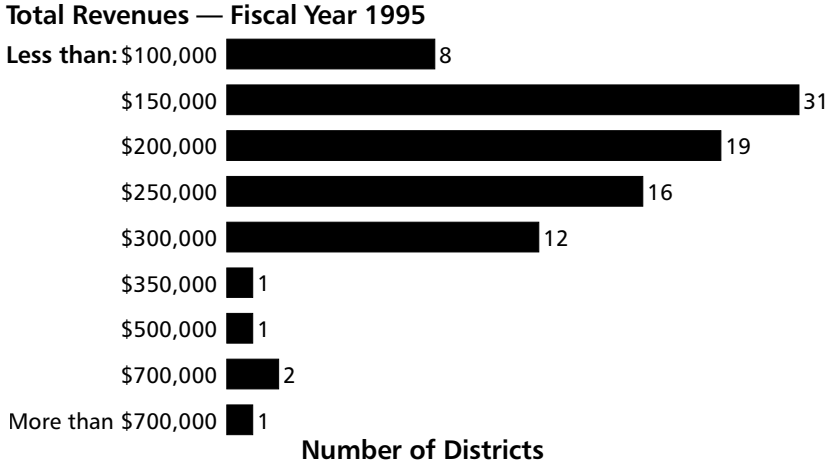
To be successful, the current system must be better coordinated and unified through common missions and plans. The state could revitalize the Environmental Quality Board as a forum for agencies to develop collective missions and coordinated plans for the state's water resource management. It could reexamine the purpose of the EQB and institute changes to improve the board's effectiveness. In addition, agencies must be given the flexibility to use funds for coordinated efforts and changing customer and program needs if outcomes are to be achieved.

2 Develop a Multi-Year Plan to Merge Regional Offices

Merged regional offices could improve interaction among agencies and better serve customers. Staff can gain knowledge of overall state programs and citizens can gain access to information and experts from all agencies in one spot. Agencies also can share clerical and other services, including vehicles, some personnel services and computer specialists, and infrastructure.

Wisconsin is endeavoring to decentralize its Department of Natural Resources to 35 service

Soil and Water Conservation Districts Vary Greatly in Revenues



Source: Board of Water and Soil Resources

centers over the next three years. Most people will be within a 30-minute drive to a center and most centers will be open selected evening and weekend hours. Three centers currently are operating as pilots. This scale of decentralization is costly in disruption of staff and morale, as well as dollars.

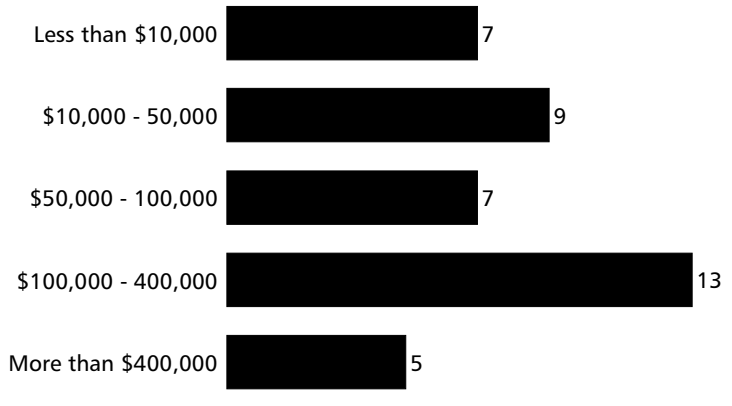
Minnesota could pursue a smaller number of joint regional offices, or service centers, and partner with local units of government to provide additional sites of access to state information and systems. It could develop a decentralization and collocation strategic plan for all agencies to be implemented over a five- to 10-year period. The plan could call for taking advantage of opportunities for collocation as they arise, as well as pilot centers. Rochester, Duluth, Marshall, Bemidji or Brainard could be considered for pilot centers, since several agencies have regional or area offices in these cities. These efforts would require significant capital investments.

3 Simplify Procedures for Modifying Special Purpose Districts

Current procedures for modifying special purpose districts are cumbersome and as complicated as procedures for establishing them in the first place. The state could simplify these procedures, giving local units the tools to make the best arrangements for their situation and enabling them to better respond to changing needs.

Wisconsin eliminated all of its soil and water conservation districts and assigned their duties to counties and Nebraska consolidated more than 150 districts into 24 natural resource conservation districts. These "one size fits all" solutions do not fit Minnesota's diverse geography and variety in special district size and level of effort. While merging with counties might be advantageous for some smaller soil and water conservation districts or watershed districts, mergers with neighboring districts might make as much or more sense, particularly where experts are needed. Merged districts might be able to hire experts in several fields, rather than having to hire one person to fit several roles.

Watershed Districts Vary from Small, Single Project Operations to Large Multi-Faceted Units



Source: House Research Department, *Special Taxing Districts,* 11/93

Modification to existing procedures could include allowing units to merge into larger combined resource districts, eliminating or reducing petition and referenda requirements and providing for interim merged boards. The Board of Water and Soil Resources could take a more proactive role in identifying opportunities for mergers. It could work with units to facilitate efforts, as the Board of Government Innovation and Cooperation does with general purpose governments. It could take the lead to help units explore approaches, identify costs and map out a transition plan to the new structure. Feasibility studies could be undertaken early in the process so citizens have a clear understanding of what the merger will entail.

The state could provide incentives, similar to those used to foster school district mergers. It could provide funding to help defray actual costs of mergers and keep state funding levels to the merged unit at levels no lower than previously provided to the separate units for an interim period. The state also could provide funding for feasibility studies, once units resolve to consider consolidation.

These changes would enable local governments to better respond to changing fiscal, water resource, technology and staffing needs. However, it could lead to a hodgepodge system of units and responsibilities across the state that would be hard for citizens and state agencies to negotiate. For example, one area might eliminate its soil and water conservation district and fold its functions into the county, while another area might have a four-county super soil

and water conservation district. Additionally, continued representation of affected parties in the new structures, such as those assessed for a watershed improvement project, would have to be ensured.

4 Build on Local Water Planning

County comprehensive local water plans can be the vehicle for defining roles and responsibilities at the state and local level, regardless of the adopted local level structure. Some plans, such as Benton County's, clearly identify the responsibilities of all local governments within the county. Others do not. Using the water plan to serve this function would allow citizens and state agencies to easily ascertain roles at the local level.

These plans also could form the basis for all environmental information in local sustainable development plans. They should contain information on all aspects of water resource needs in the county, including the water supply and wastewater treatment needs of cities. Water plans are used as a criterium for many grant and loan programs. They could become a more significant one as plans become more detailed. The state could explore other ties to these plans, including higher environmental review thresholds and streamlined permit and approval processes for projects in local water plans.

5 Enhance Coordination Among Agencies

While local water plans can be the vehicle for defining roles at the local level, no similar tool exists at the state level. The *Minnesota Water Plan*, produced every 10 years, can serve to define overall objectives for the state but not day-to-day roles. Citizen and local units of government must know who is in charge and whom to contact. Efforts among agencies also can be better streamlined and integrated if responsibilities are clear.

The Legislature, or agencies collectively through the Environmental Quality Board, could designate lead agencies for various activities. For example, one agency could coordinate monitoring and another grant applications or feedlot issues. The lead agency would be responsible for bringing agencies together to address conflicts and facilitate decisions. Agencies could build upon their current effort to coordinate biennial budget requests for monitoring by developing joint goals and outcomes for their efforts. In addition, agencies could maintain electronic listings of memoranda of agreement and understanding with a summary of the issue, responsibilities assigned, date enacted and next review or expiration date.

The Environmental Quality Board could systematically review implementation of the *Minnesota Water Plan* and foster actions by appropriate agencies. It could be the forum for discussion of agency missions and joint development of overall goals and priorities for water resource management.

6 Integrate Financial Assistance Programs

State grant and loan programs providing money to local governments and individuals could be better integrated to streamline procedures for applicants and ensure that moneys are directed to priority problems. The state could review objectives of the various grant and loan programs on a biennial basis to reduce overlap and ensure that purposes remain distinct or programs are combined. It also could set overall priorities, stress top priority actions and use consistent cost-share amounts that apply to all programs.

One agency could be designated as the contact for all grant and loan programs and manage all applications. Deadlines and application forms could be standardized. The agency could screen preliminary applications and guide applicants to appropriate programs, similar to the process the Department of Trade and Economic Development uses for economic development grants and loans. A single committee composed of representatives from all pertinent agencies could review applicants and make funding recommendations. Financial assistance for water-related efforts funded through the Legislative Commission on Minnesota Resources, the Board of Government Innovation and Cooperation, the Office of Environmental Assistance and other state sources also could be reviewed by this committee.

In addition, certain grant programs could be combined. A committee is currently reviewing financial assistance programs for individual wastewater treatment systems to determine possible program consolidations. Similar efforts could be undertaken for other categories of assistance with overlapping program objectives or that fund the same practices.

7 Identify Additional Permitting Decisions that can be Handled through General Permit, Rule or Delegation

Efforts by the Pollution Control Agency and the Department of Natural Resource to simplify permitting could be continued

and expanded. All agencies could evaluate their permitting and other decision processes to identify elements that could be handled through general permits, rules and delegation to regional or field staff, local units of government and the general public. These approaches reduce workloads and encourage particular kinds of actions, since a project must conform with the conditions of the general permit or rule to proceed under this process. Projects can proceed more quickly and permittees know that projects will be approved if conditions are met.

The Department of Natural Resources' general permits for bridge and culvert repair and replacement could be expanded to include additional counties. Other DNR efforts that might lend themselves to general permits include erosion control projects conducted under soil and water conservation district developed plans, installation of dry hydrants for local fire protection efforts, and winter stream crossings on public forest lands. The Pollution Control Agency could pursue permitting certain feedlots by rule.

The approach could be to decentralize, delegate and issue through general permits and rules decisions that are routine and of minor environmental significance. Conformance with soil and water conservation district plans, shoreland ordinances and other local plans and ordinances could be an important criterion for judging significance. Critical decisions and projects not conforming to defined conditions would be made centrally. Any efforts must ensure that consistency of decisions is maintained across the state and resources are protected.

8 Seek Waivers from Federal Mandates

Strings Attached: the Price of Federal Mandates, prepared by Minnesota Planning in November 1995, identified many of the federal mandates affecting the state and recommended steps that could be taken to address them. It suggested that agencies review the purpose and intent of federal mandates regularly to determine if desired outcomes are being achieved. It also urged agencies and the executive branch to aggressively seek waivers from outdated and ineffective mandates and regulations.

Agencies could pursue these steps by identifying outdated and ineffective mandates and federal requirements that are inconsistent with Legislature's goals and outcomes. They could propose more efficient ways of implementing the mandates and requirements and outline actions needed to institute change. One requirement in need of change is the five-year maximum length the U.S. Environmental Protection Agency places on National Pollutant Discharge Elimination System permits.

9 Invest in Technology

Technology can be an important key to achieving many of the Legislature's outcomes. It can be particularly valuable for coordinating efforts, decentralizing service-delivery, improving access to information and expediting decisions. For regional offices or service centers to function properly, they must be connected to central offices and each other. Training and information that must be provided to all agency staff could be handled electronically. Files and databases could be readily accessible from any location.

Technology also could hook local government offices with the state so that citizens can stop at county, soil and water conservation district or watershed district offices to get information and permit applications. Citizens could even leave an e-mail question or have a "teleconversation" with regional or central office staff.

The state could develop a technology improvements plan. It could include a schedule to connect all offices and local units of government. It could identify key equipment needs to streamline permitting and decision-making, such as digital cameras and portable computers and modems for field use and teleconferencing to "transport" needed central offices staff to the field. The plan could build on such existing services as emergency on call, which includes all agencies, and the wetland hotline being developed by the Board of Water and Soil Resources.

Agencies could develop unified, interconnected Web sites so that citizens can seamlessly navigate through the state's water resource management system. These could contain permit applications, procedures, general permit conditions and resource data, to name only a few possibilities. Sites could be accessed at central and regional offices, local units of government and any other location with computers linked to the Internet.

As technology is developed, and databases expand, the state should ensure that systems among and within agencies and units of government are compatible. The state could adopt a standard set of geographical codes so that information can be easily used.

10 More Fully Integrate Sustainable Development into State Efforts

Minnesota has come a long way in establishing a policy planning framework for sustainable development, but several actions would help to more fully integrate this concept into the state's efforts. *Challenges for a Sustainable Minnesota*, prepared by the Environmental Quality Board in 1995, laid out a draft mission and principles. This draft could be revised, as necessary, and formally adopted so that it could be used by agencies in rethinking how their missions and programs support sustainable development. The EQB also could develop methods for evaluating how well policies and programs promote sustainable development.

Long-term planning and goal setting for sustainable development are inhibited by single-issue mandates and funding that restricts agencies' ability to collaborate across programs and agency lines. The Legislature could relax its programmatic approach to funding and instead mandate specific outcomes, leaving executive branch agencies and local governments to jointly work out how best to achieve them.

Sustainable development also requires that environmental and economic issues be addressed together. However, the main state body responsible for coordinating sustainable development efforts within the executive branch — the Environmental Quality Board — is perceived as being concerned only with environmental issues. The Legislature could add the Department of Trade and Economic Development to the EQB to address this issue.

State Structures

State Agencies and Local Government

Actions of most state agencies can influence water resources, including building a highway, siting a new correctional facility or providing a loan for an industrial park. But responsibility for ensuring that water resources are protected and managed properly is vested in traditional resource agencies. In addition, more than 20 formal state-level boards, councils and task forces deal with water resource related issues.

Six State Agencies Play Key Roles in Water Protection and Management. Four of these agencies — the departments of Natural Resources, Health and Agriculture and the Pollution Control Agency — serve multifaceted roles. All four have responsibilities for regulation, technical assistance, financial assistance, monitoring and setting standards for activities and resources. But each has specific state-established responsibilities and others assigned through federal law.

The Department of Natural Resources administers water quantity and other resource management efforts, including programs affecting fish, wildlife, recreation, minerals and forestry. The Department of Health deals with health risk, wells, wellhead protection and drinking water and has responsibilities through the federal Safe Drinking Water Act. Pesticide and fertilizer regulations, as well as a selected number of other agricultural issues including sustainable agriculture and integrated pest management, reside with the Department of Agriculture. The department is responsible for implementing the federal Insecticide, Fungicide and Rodenticide Act in Minnesota.

The Pollution Control Agency dominates the water quality management arena and is responsible for implementing the federal Clean Water Act in the state. Portions of the federal Resource Conservation and Recovery, the Comprehensive Environmental Response and Liability and Clean Air Acts, all administered in Minnesota by the PCA, also deal with water quality. The PCA is the only one of the four governed by a citizen board; however, all make use of formal and informal citizen, expert and stakeholder committees and task forces. The commissioners of these four cabinet level agencies are appointed by the governor.

Minnesota Planning provides coordination through the Environmental Quality Board and the Land Management Information Center. The center manages a statewide geographic information system and various databases and, in addition, develops standards for data compatibility. Coordination and water policy integration among state agencies as well as with local, regional and federal bodies is assigned to the EQB. The board is composed of the heads of the departments of Natural Resources, Agriculture, Health, Public Service and Transportation, the Office of Environmental Assistance, Minnesota Planning, the Pollution Control Agency and the Board of Water and Soil Resources, as well as five citizen members and a chair appointed by the governor. Water duties are assigned to its Water Resources Committee. Many interagency water reports and activities require EQB review or involvement.

The Board of Water and Soil Resources plays a lead role in working with counties, soil and water conservation districts, watershed districts, watershed management organizations and other local governments. It provides financial, technical and administrative assistance through such programs as Reinvest in Minnesota Reserve, Cost-Share and Local Water Management and coordinates activities among local, state and federal governments. Much of the funding for local government relating to water planning and management issues is distributed by the board. It is composed of governor-appointed representatives from soil and water conservation districts, watershed districts, watershed management organizations, counties and the general public, and includes nonvoting representatives from the departments of Natural Resources, Agriculture and Health, the Pollution Control Agency and the Minnesota Extension Service. Its executive director is appointed by the board.

Other Agencies are Involved in More Limited Activities and Areas. The Department of Trade and Economic Development manages the state's revolving loan fund and offers an array of financial assistance for water, wastewater and other environmental needs. The University of Minnesota's Minnesota Geological Survey conducts geological research, prepares maps and interprets Minnesota's geology. It works with the Department of Natural Resources to develop county geologic atlases and regional geologic and sensitivity analysis. The university's Minnesota Extension Service provides educational programs and materials to individuals and local

governments. The Office of Environmental Assistance provides technical and financial assistance for pollution prevention and managing solid and hazardous waste. In the Twin Cities area, the Metropolitan Council plans for water management and operates a regional wastewater treatment system.

Local Government Structures Tackle Water Issues

Local units of government complete the picture of Minnesota's water resource management system. Their responsibilities include implementing projects to solve problems and provide services, developing plans to deal with issues and prevent problems, and helping citizens understand the importance of their actions. All general purpose local units of government — counties, cities and towns — are involved in issues that directly or indirectly affect water resources. Zoning, land use decisions, local ordinances and permit actions all can affect water resources. In addition, there are cities and sewer and water authorities that operate water and wastewater facilities.

Counties outside the Twin Cities area have a special role through their authority to develop and implement county comprehensive water plans. These plans emphasize watershed management and bring together and coordinate many previously disparate resource management efforts at the local and state level. Every county outside the Twin Cities area has an approved plan. Within the Twin Cities area, counties are authorized to prepare county ground water plans.

Five types of special purpose districts have significant roles in water resource management — soil and water conservation districts, watershed districts, lake improvement districts, watershed management organizations and lake conservation districts. The first three are initiated by citizen or local government petition. Watershed management organizations were mandated by the Legislature, while lake conservation districts are formed by it. Functions and degree of autonomy of these special purpose local governments vary widely.

Soil and Water Conservation Districts Blanket the State. Begun in the late 1930s primarily in response to serious soil erosion problems, the purpose of soil and water conservation districts has expanded to conservation projects dealing with land, surface water and ground water. Many districts are involved in comprehensive water planning and managing elements of the state's Reinvest in Minnesota Reserve Program and Wetland Conservation Act. Districts provide technical and financial assistance to landowners for conservation practices and work closely with local U.S. Department of Agriculture Natural Resources Conservation Service staff, Minnesota Extension Service agents, counties and state agencies. Many counties rely on districts for input on various natural resource issues, including feedlot permitting.

There are 91 soil and water conservation districts in the state. All are organized along county lines, except for those in Beltrami, Marshall, Otter Tail, Polk and St. Louis counties, which split counties. Districts are governed by an elected board of five supervisors and have no taxing authority. Most of their funding comes from counties and the state, but they also raise funds by charging for various services. The Board of Water and Soil Resource is the state administrative agency for soil and water conservation districts.

Watershed Districts Cover About One-Third of the State. Watershed districts, authorized by the Legislature in 1955, have broad authority to address a wide variety of water-related issues. Districts protect resources through planning, flood control and other projects. Most were formed to address specific issues. In the northwest, the primary concern of many watershed districts is flooding. Many districts in central Minnesota focus on water quality protection. Twin Cities area districts deal primarily with the effects of urban development on flooding and water quality.

Minnesota currently has 42 watershed districts. Watershed districts are primarily located in the northwest, central and southeast parts of the state. Districts follow watersheds rather than political boundaries and may include all or part of numerous counties, cities and townships. All watershed districts are in one or more soil and water conservation district.

Watershed districts are governed by a board of managers ranging in size from three to nine members. Board members are appointed by county boards with land in the watershed districts. Watershed districts also have citizen advisory committees appointed by the board of managers. Districts have taxing authority, eminent domain and other land use and regulatory authorities. The Board of Water

and Soil Resource is the state administrative agency for watershed districts.

Minnesota has 10 Lake Improvement Districts. Lake improvement districts are generally established to preserve the natural character of a particular lake and its shore land environment and can be formed by county boards, with approval of the Department of Natural Resources, or by the DNR commissioner. Wright County has three districts, while Chisago, Kanabec, Polk, Ramsey, St. Louis, Scott and Stearns counties each have one. Districts boundaries overlap with soil and water conservation districts and with watershed districts or watershed management organizations in Polk, Ramsey, Scott and Stearns counties. Lake improvement districts can deal with a lake's entire watershed, but they generally include only shoreline properties.

County boards delegate powers to lake improvement districts. These include constructing and operating a lake control structure, acquiring equipment to improve navigation, constructing and maintaining water and sewer systems, maintaining public facilities and regulating water surface use. The actual duties vary greatly. Lake improvement districts have no taxing authority of their own. The county board specifies the type of funding arrangement when the district is established. Districts generally pass their budget recommendations through the county board for approval and funding.

Lake improvement districts are governed by a board ranging in size from five to nine members. The directors must be property owners in the district, and a majority of the directors must be residents of the district. The Department of Natural Resources is the state administrative agency for these districts.

Watershed Management Organizations are Charged with Water Planning in the Twin Cities Area. The Metropolitan Water Management Act of 1982 mandated watershed management organizations and development of watershed management plans for the minor watershed units wholly located in the seven-county metropolitan area. These organizations must protect and preserve natural water storage systems, identify means to prevent soil erosion and protect and improve water quality and establish consistency across governmental units for water management.

There are 46 watershed management organizations in the Twin Cities area. Thirty-five are joint-powers organizations run by a board appointed by the governing bodies of the member cities and towns. The other 11 are watershed districts, which can take on responsibilities for their respective watersheds. Watershed management organizations have limited land use powers and taxing authority, although many joint-power organizations have chosen not to use this authority. Soil and water conservation district and watershed management organization boundaries overlap.

Minnesota has Two Legislatively Created Lake Conservation Districts. The Lake Minnetonka Conservation District, established in 1967, and the White Bear Lake Conservation District, established in 1971, have a variety of regulatory powers over their respective lakes. These include the power to regulate the types of boats and motors that can be used, regulate public facilities, limit the times and places of use, regulate boat speeds and conduct research. Both districts are contained entirely within watershed districts.

Lake conservation districts are composed of the municipalities that have property on the lake. Their boards are elected by the governing bodies of the member municipalities. These municipalities also fund districts, which do not have taxing authority. The lake conservation district's budget is proposed by its board and either modified or approved by the governing bodies of the municipalities. The governing bodies of each of the municipalities pay a share of the total budget, within defined statutory limits.

Inventory of Improvements

The state's agencies and local governments have taken numerous actions to improve water resource management over the past six years that relate directly to the outcomes outlined by the Legislature. This inventory highlights many of these actions within the four outcome areas. It is not intended to be exhaustive.

Streamline and Integrate State's Water Resource Management and Protection Efforts

Overall

- Governor established the Environmental Cluster, composed of heads of environmental agencies, to coordinate program and policy issues; includes departments of Agriculture, Health and Natural Resources, Pollution Control Agency, Board of Water and Soil Resources, Office of Environmental Assistance, Environmental Quality Board and Minnesota Planning.
- Environmental Quality Board established the Water Resources Committee to coordinate interagency water resource issues; includes departments of Agriculture, Health and Natural Resources, Pollution Control Agency, Board of Water and Soil Resources, Office of Environmental Assistance and Metropolitan Council.
- Red River Water Resources Council brings together federal agencies and Minnesota, North Dakota and Manitoba state and local governments and citizens.
- Minnesota River Joint Powers Board brings local governments together for protection and rehabilitation of Minnesota River.
- U.S. Geological Survey unites state, local and federal agencies for National Water Quality Assessments of Red River of the North and the Upper Mississippi River basins.
- Departments of Agriculture and Natural Resources locate field staff in same offices on a pilot basis.

Program Coordination

- Comprehensive State Ground Water Protection Program, Framework and State Assessment, a multiagency effort led by the Pollution Control Agency and coordinated through the Environmental Quality Board, identified existing authorities and programs, gaps and opportunities for improvement.
- Nonpoint Source Management Program, led by the Pollution Control Agency with federal, state, local and citizen input, laid out issues and strategies for the state.
- Minnesota Pesticide Management Plan, a multiagency effort led by the Department of Agriculture, outlined strategies to prevent, assess and respond to problems.
- Feedlot and Manure Management Advisory Committee involves all agencies and coordinated feedlot management legislative initiative defined roles and responsibilities.
- Well Head Protection Program, led by the Department of Health, pulls together the departments of Health and Agriculture and the Pollution Control Agency to protect public water supplies, work with local governments and share data, technical assistance and guidance documents.
- Effective and consistent implementation of the Minnesota Environmental Response and Liability Act facilitated by Department of Agriculture and Pollution Control Agency agreement.
- Water and Wastewater Operator's Certification Council and rule-making coordinated by Department of Health and Pollution Control Agency.
- Wetland Interagency Coordination Team coordinates activities of local, state and federal agencies and implements procedures to streamline permitting and strategies. Agencies streamlined delivery of services through joint application forms, wetland delineations and other means.
- Interagency Water Quality Standards Advisory Committee advises the Pollution Control Agency.
- Interagency Ground Water Coordination Group and Ground and Surface Water Monitoring Program pull together state, federal and various regional and local jurisdictions.
- Monitoring and Assessment Strategy, led by the Pollution Control Agency, strives to coordinate activities.
- *PCA Ground Water Sampling Guidance: Development of Sampling Plans, Protocols, and Reports* ensures accurate, reliable sampling results from state and local governments.

- Red River of the North Total Maximum Daily Load Interagency Workgroup, led by the Pollution Control Agency, develops permit limits to protect river in low-flow conditions.
- St. Louis River Action Plan pulls together Pollution Control Agency, Department of Natural Resources, U.S. Environmental Protection Agency and others for monitoring and remediation.
- Great Lakes Initiative Advisory Committee develops water quality criteria for the basin and involves agencies throughout the basin.
- Metro Interagency Team coordinated plan reviews for Local Water Planning.
- Department of Natural Resources provides the Board of Water and Soil Resources with hydrologic modeling assistance in preparing watershed management organization plans.
- County Geologic Atlas Program encourages cooperation among Minnesota Geological Survey, Department of Natural Resources and counties.
- Consolidated system for collecting fees and taxes from businesses that handle or generate hazardous materials and waste under development by Pollution Control Agency and Department of Revenue.
- Individual Sewage Treatment System roles and responsibilities being defined by Department of Health and Pollution Control Agency.
- Interagency team finalizing a lakes management guide.
- Department of Health consolidated programs with small numbers of staff to share support services and reduce management.
- Infectious waste program eliminated by the Department of Health in response to changes in federal rules and program need.

Compliance and Enforcement

- Criminal Case Screening Committee for review of potential cases involves Pollution Control Agency, departments of Agriculture, Natural Resources and Transportation, and Attorney General.
- Departments of Health and Natural Resources cooperate in developing law and regulating public water suppliers' water conservation plans.
- Responses to private and municipal well contamination coordinated between Pollution Control Agency and Department of Health.
- Waste pesticide collection conducted cooperatively by departments of Agriculture and Transportation, Minnesota Extension Service, Pollution Control Agency and local governments.
- Hazardous waste enforcement, inspection, remediation and incident response coordinated among Pollution Control Agency and departments of Agriculture and Health, including incidents of potential contamination of groundwater caused by release of hazardous substances from improper handling.
- Field citations for illegal disposal of waste jointly issued by Pollution Control Agency and Department of Natural Resources.
- Inspection of wastewater treatment facilities serving mobile home parks, resorts and campgrounds coordinated between Pollution Control Agency and Department of Health.
- Feedlot-related environmental violations jointly investigated and enforced by Pollution Control Agency and Department of Natural Resources through agreement.
- Construction sites inspected for compliance with Storm Water Permit Program for Construction Activity by soil and water conservation districts under agreement with the Pollution Control Agency.

Financial Assistance

- Board of Water and Soil Resources' Block Grant consolidated some grants from the board, the Pollution Control Agency and the Department of Natural Resources to local governments and grants administration.
- State Revolving Fund expanded to provide loans for nonpoint source pollution abatement projects through Pollution Control Agency, Board of Water and Soil Resources and Department of Agriculture with administration of fund provided by the Department of Trade and Economic Development.
- Clean Water Partnership and federal Clean Water Act grant applications reviewed by interagency team.

Partnerships with Local Governments, Citizens and Industry

- Hydrologic modeling and other services provided through partnerships between Department of Natural Resources and local water management organizations.
- Ground water monitoring cooperatives established among state agencies and local governments, including efforts in Wadena and Stearns counties and nine counties in southeast Minnesota.
- Agencies use soil and water conservation districts as clearinghouses for wetlands information.
- State Community Health Services Advisory Council advises commissioner of the Department of Health.
- Citizen volunteers provide lake gaging and precipitation monitoring information to the Department of Natural Resources.
- Citizen Lake Monitoring Program volunteers help the Pollution Control Agency collect information on lakes.
- Responsible parties expedite the cleanup of environmental contamination through the Pollution Control Agency's voluntary investigation and cleanup program.
- Great Lakes Sport Fish Advisory Council advises the Department of Health and others.

Tailor Water Resource Management and Protection Efforts to Customer's Needs

Brochures and Guides

- *Minnesota Surface Water Guide* and *Ground Water — A Directory of Minnesota's Programs and Resources,* prepared by the Pollution Control Agency with input from other agencies.
- Fact sheets on agency issues, programs, pollution prevention activities and regulations and environmental profiles of legislative districts prepared by the Pollution Control Agency.
- Brochures, fact sheets, newsletters for regulated parties and annual report card on the quality of drinking water supplies prepared by the Department of Health and interpretive manuals to accompany regulations are being developed.
- Department of Agriculture produces *Update* and reports on water quality.
- Agencies jointly developed a brochure on wetland regulations.

Outreach

- Department of Agriculture conducts clinics, which the department and other agencies use to distribute information.
- Department of Health provides materials at health fairs and county fairs and holds annual training and technical assistance schools and conferences on water policy.
- World Wide Web sites on the Internet are being created by all agencies.
- An electronic bulletin board service gives the public online access to Pollution Control Agency fact sheets, program guidance and lake resources.
- Pollution Control Agency strengthened regional operations and service delivery systems through its Regional Operations Division, formation of regional compliance units and placement of personnel covering public information, leaking underground storage tank cleanup, tank compliance and other efforts in regional offices.

Information Management

- Ground water information is managed and transferred to users through the Pollution Control Agency's Integrated Ground Water Information System, the Land Management Information Center's State Well Index, the Minnesota Geological Survey's County Well Index, and the Obwell Program.
- The Pollution Control Agency is developing DELTA, a comprehensive database for permitting actions. The agency's Master Entity System database provides location information on current and potential contaminant sources.
- County Geological Atlas preparation continues to improve the understanding of state water supplies.
- Department of Natural Resources prepared 1:1,000,000 watershed maps.
- Pollution Control Agency Water Quality Division and others developed geographical information systems.

Simplify Permitting and Other Decision-Making Processes

Delegate and Decentralize

- Bridge and culvert general permit authority offered to local governments by the Department of Natural Resources.
- Permitting and other decisions delegated to Department of Natural Resources' field staff.
- Most decisions delegated to Board of Water and Soil Resources' field officers.
- Feedlot program delegation offered to counties by the Pollution Control Agency.

Consolidate

- Statewide licensing of on-site treatment system professionals, including designers, installers, pumpers and inspectors, by the Pollution Control Agency streamlines process for contractors needing multicounty licensing.
- Interagency wetlands coordination committee developed joint permit application that is accepted and used by permitting agencies.
- Project XL, spearheaded by the Pollution Control Agency, consolidates permits and gives flexibility to permittees.
- Pesticide licensing functions consolidated in the Department of Agriculture's Agronomy and Plant Protective Service Division.

Simplify

- Metro Water Planning 509 Coordination Committee, with representatives from state agencies and the Metropolitan Council, jointly reviews local actions with respect to state standards.
- Legislation requires agencies and local governments to take action on permits within 60 days.
- General permits issues by the Pollution Control Agency for storm water and other activities allow applicants to start work 48 hours after filing.
- Operating procedures and check list define Department of Health needs in feedlot permitting for Pollution Control Agency permit applicants.
- The Permit Quality Action Team, a joint effort of the Pollution Control Agency and the U.S. Environmental Protection Agency, reviews and evaluates procedures.
- Pollution Control Agency policy guidance on impoundments helps applicants understand agency expectations and streamlines process.

Orient Efforts to Account for Overall Environment, Natural Resource and Human Needs

Sustainable Development

- Sustainable Development Initiative launched by the Environmental Quality Board.
- Interagency state plan for sustainable agriculture and integrated pest management implemented by the Department of Agriculture.

Resource-Based Efforts

- Agro-eco regions based on natural resource variables defined by the University of Minnesota, the Department of Agriculture and an advisory team.
- Fish community biocriteria used by the Pollution Control Agency and the Department of Natural Resources in Red River Valley ecoregion for national water quality assessment.
- Pollution Control Agency uses basin management as main policy for phosphorous control.
- Statistically based/random-site water quality monitoring program is underway in St. Croix basin, jointly by Pollution Control Agency, U.S. Environmental Protection Agency, and Department of Natural Resources.
- Metropolitan Ground Water Model is helping the Pollution Control Agency to produce a computer-based model for better coordination of basin-wide protection efforts.
- Pollution Control Agency implementing statistically based ground water monitoring statewide and ground water trends monitoring in developing areas.
- Acceptable risk and land use standards are becoming basis for Pollution Control Agency cleanup levels.
- Use of ground water for once-through-cooling phased out and prohibited for lake augmentation by the Department of Natural Resources.

Polluter Pays

- Pesticide and fertilizer regulatory, service and educational programs of the Department of Agriculture supported by fees and surcharges.
- Waste pesticide and pesticide container recycling programs of the Department of Agriculture funded by fees through registration and licensing of pesticide products and pesticide users.
- Agricultural Chemical Response and Reimbursement Account funded by surcharges on pesticides and fertilizers.
- Cleanup costs of superfund sites involving agricultural chemicals recovered from responsible parties.
- Cleanup of contaminated landfills funded through user fees.
- Storm water permit program funded completely by permit fee revenues.
- Users of ground water for once-through-cooling pay high Department of Natural Resources' fees.
- Violators pay double the permit fee to the Department of Natural Resources and violations require restoration.

MINNESOTA PLANNING is charged with developing a long-range plan for the state, stimulating public participation in Minnesota's future and coordinating activities with state agencies, the legislature and other units of government.

This report was prepared by Deborah Pile, with assistance from Russell Kava. Additional assistance was provided by an interagency work group with representatives from the Environmental Quality Board, the Pollution Control Agency, the Board of Water and Soil Resources, and departments of Agriculture, Health and Natural Resources.

Crosscurrents was prepared for the Environmental Quality Board in partial fulfillment of 1995 Minnesota Laws, Chapter 248, Article 5 using funding provided through 1996 Minnesota Laws, chapter 407. The cost to prepare and publish this report was about $20,000, not counting assistance provided by the interagency work group.

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December 1996

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