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OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

PROGRAM EVALUATION REPORT

Water Quality: Permitting and Compliance Monitoring

JANUARY 2002

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OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA • James Nobles, Legislative Auditor

January 24, 2002

Members
Legislative Audit Commission

In May 2001, the Legislative Audit Commission directed the Office of the Legislative Auditor (OLA) to study selected "core functions" of the Minnesota Pollution Control Agency (MPCA). After consulting further with legislators, we decided to examine permitting and compliance monitoring activities in the agency's water quality program.

Our evaluation found that Minnesota's water quality permitting process has grown less timely in recent years, and the number of facilities operating under expired permits has increased. Although permitting delays do not always result in environmental harm, timely permitting process is important for a variety of reasons. We think that MPCA should seek ways to expedite the permitting process and conduct more inspections with existing staff, as recommended by a blue ribbon task force several years ago.

This report was researched and written by Joel Alter (project manager) and Todd Wilkinson, with assistance from John Yunker. We received the full cooperation of the Minnesota Pollution Control Agency in our preparation of this report.

Sincerely,

/s/ James Nobles

James Nobles
Legislative Auditor

/s/ Roger Brooks

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Summary

MPCA should take additional steps to improve the timeliness of its water quality permitting process.

Major Findings:

- In mid-2001, 54 percent of Minnesota's "major" facilities with water quality permits (and 41 percent of all water quality permittees) operated with expired permits. This permit "backlog" exceeded federal and state targets, and it was larger than the backlogs of most other states (p. 15).
- Some factors contributing to the growing permit backlog have been within the direct control of the Minnesota Pollution Control Agency (MPCA), and some have not (p. 20).
- Permitting delays can adversely affect environmental quality, business decisions, local development, and MPCA's credibility as a regulator, although the impact of delays in individual cases varies (p. 18).
- A statewide task force recommended in 1995 that MPCA issue more permits per staff person and conduct more inspections per staff person. Since that time, however, MPCA has collected limited information regarding staff productivity (pp. 30, 39).
- The number of water quality "point source" facility inspections declined in recent years, contrary to the recommendations of a 1995 statewide task force (pp. 34-35).

Key Recommendations:

- The Legislature should require MPCA to prepare a progress report for the 2003 Legislature that addresses (1) the status of the water quality point source permit backlog, and (2) the implementation of improvements in the permitting process (p. 27).
- MPCA should (1) consider ways to increase its number of point source inspections per inspection staff, (2) update the agency's policy on appropriate enforcement responses and ensure its consistent use by staff, and (3) consider options for improving permittee compliance (p. 45). MPCA should also track the productivity of its permit and inspection staff (pp. 30, 45).

Report Summary

The Minnesota Pollution Control Agency (MPCA) has been Minnesota's main environmental protection agency since its creation in 1967. It monitors and regulates air, water, and land pollution, works with citizens and businesses to prevent pollution, and helps to clean up polluted sites. The agency has a nine-member citizens board and more than 700 staff.

In fiscal year 2001, about 66 full-time-equivalent MPCA staff worked on activities related to the water quality "point source" program. Point sources are municipal and industrial facilities that discharge wastewater to surface or ground water through discrete discharge points. About three-fourths of staff in the water quality point source program issue permits, monitor compliance with permits, or enforce the conditions of permits.[1]

MPCA Should Address Problems with the Timeliness of its Permitting Process

Several factors have contributed to MPCA's large permit backlog.

The federal government has delegated authority to MPCA and 43 other states to issue National Pollutant Discharge Elimination System (NPDES) permits, and MPCA also issues some "state-only" permits. Permits last for five years, and facilities are required to apply for renewals at least 180 days before the existing permit expires. If the application has been made in a timely manner, the terms of the existing permit remain in effect until MPCA issues a new permit.

In July 2001, 1,424 facilities had NPDES or state-only permits, and 41 percent of these facilities operated under permits that were beyond their expiration dates. This was 7 percentage points higher than the backlog in 1995, and 13 points higher than a target adopted by a Governor-appointed "Blue Ribbon Task Force" in 1995. In addition, 54 percent of "major" NPDES facilities operated under expired permits, well above the national rate of 25 percent and the U.S. Environmental Protection Agency's target of a 10 percent backlog by the end of 2001.

MPCA issued, reissued, or modified an average of 215 permits annually in fiscal years 1997 to 2001—down from the 236 actions reported by the Blue Ribbon Task Force on Water Quality Funding for fiscal year 1994. In addition, it took an average of 134 weeks in fiscal year 2001 for MPCA to issue a permit after receiving an application, compared with 47 weeks in 1994.

In some cases, delays in the permitting process probably have no adverse effects. In other cases, they may delay implementation of new environmental standards, impede local development plans, or prevent transfers of business ownership. More generally, the inability of MPCA to issue timely permits weakens the agency's credibility as a regulator.

Various factors have likely contributed to growth in the permit backlog, although it is not possible to quantify the impact of each. These include: (1) changes in regulatory policy that have increased the complexity of some permits; (2) more challenges to draft permits by environmental groups, local government groups, and permittees, combined with MPCA's practice of negotiating disputed matters on a case-by-case basis; (3) confusion and slowdowns caused by MPCA's 1998

1 MPCA has two other water-related regulatory programs (feedlots and stormwater) that this evaluation did not review.

staff reorganization; (4) a temporary transfer of staff to MPCA's feedlot program in 1998, (5) problems with MPCA's new permit information system; (6) fiscal year 1999-2001 budget reductions in the point source program; and (7) a 4 percent increase since 1995 in the number of point source facilities with permits.

Key permitting and inspection goals established by a Blue Ribbon Task Force in 1995 have not been met.

MPCA has implemented several changes in the permitting process recommended by the 1995 Blue Ribbon Task Force, but it should take further steps. For example, options might include staff "forums" to address unresolved permit issues, internal time limits on MPCA actions, adoption of more "general" permits (that can apply to multiple facilities), development of a manual for permit staff, and consideration of rule development for phosphorus and mercury issues that have prolonged many permit actions. MPCA should report to the 2003 Legislature about the status of the permit backlog and improvements in the permit process.

The 1995 Blue Ribbon Task Force recommended that MPCA increase its number of permits issued per permit-related staff. MPCA measured staff productivity for a two-year period, but it has not done so since 1999.

MPCA's Number of Facility Inspections Has Declined

One of the ways that MPCA monitors compliance with permit conditions is through facility inspections. The 1995 Blue Ribbon Task Force set a goal of increasing the percentage of facilities inspected annually—from 32 percent that were inspected at that time to 39 percent. However, MPCA inspected only 17 percent of Minnesota's 1,400 point source facilities in fiscal year 2000 and 12 percent in 2001.

Federal regulations require that states "have procedures and ability" to inspect all *major* NPDES facilities at least annually. The U.S. Environmental Protection Agency has negotiated less ambitious targets with many states—in MPCA's case, setting a goal of having at least 70 percent of Minnesota's 84 major NPDES facilities inspected over a two-year period, supplemented by additional inspections of non-major NPDES facilities. MPCA records indicate that the agency inspected 68 percent of Minnesota's major facilities over the most recent two-year period—just slightly below EPA expectations. In recent years, MPCA has reduced the proportion of inspections that occur at major facilities, reflecting its belief that smaller facilities sometimes pose greater compliance risks than major facilities.

The Blue Ribbon Task Force set a goal of increasing the number of inspections per full-time-equivalent (FTE) staff. MPCA has not regularly measured this, and it appears that the number of inspections per FTE has not increased.

Facility Compliance Levels Have Room for Improvement

Water quality permittees are required to report information periodically to MPCA on the quantity and content of their discharges, and these reports are the basis for much of MPCA's compliance monitoring.

During 2000, 41 percent of Minnesota's major NPDES facilities, 45 percent of "regular" NPDES facilities, and 16 percent of facilities with "general" or "state-only" permits exceeded their effluent limits at least

once. In addition, facilities did not submit 6 percent of the monitoring reports they were required to submit in 2000, and some of the reports that *were* submitted did not have information on all facility discharges.

The federal government focuses on large or multiple violations, recognizing that it is not always realistic for facilities to achieve 100 percent compliance with effluent limits. In 2000, 18 percent of Minnesota's *major* facilities were in "significant noncompliance" by federal definitions, and Minnesota's proportion of major facilities in significant noncompliance has been near or below the national rate in recent years.

MPCA has considerable discretion about how to respond to facility violations. Over the past decade, MPCA averaged about 40 formal enforcement actions against point source facilities per year.[2] A recent report by MPCA staff acknowledged a need for more timely enforcement and improved compliance monitoring.

2 Enforcement actions include notices of violation, administrative penalty orders, stipulation agreements, and consent orders.

Introduction

Since its creation in 1967, the Minnesota Pollution Control Agency (MPCA) has been Minnesota's main environmental protection agency. It monitors and regulates air, water, and land pollution, works with citizens and businesses to prevent pollution from occurring, and helps to clean up polluted sites.

In recent years, however, MPCA's water quality "point source" program has faced funding shortfalls and been criticized for subpar performance. (Point sources are municipal and industrial facilities that discharge wastewater to surface or ground water through discrete discharge points.) For example, the 1995 Legislature provided MPCA with temporary funding to address an anticipated shortfall in the 1996-97 biennium due to declines in federal and state revenues. In conjunction with this funding, the Legislature established a Governor-appointed Blue Ribbon Task Force to examine the water quality point source program. The task force concluded that MPCA "has significant opportunities for cost reduction in the program while maintaining and even enhancing the level of services."[1]

During the 2001 legislative session, some legislators questioned whether MPCA was adequately fulfilling its "core" functions, and some wondered what progress had been made toward implementing the recommendations of the 1995 Blue Ribbon Task Force. In May 2001, the Legislative Audit Commission authorized a limited review of MPCA's performance in certain core regulatory areas, such as permit issuance and compliance monitoring. Based on subsequent discussions with legislators, legislative staff, and executive branch officials, we further limited our review to MPCA's permit issuance and compliance monitoring activities in the water quality point source program. In this evaluation, we asked:

- **How much time does it take MPCA to issue and reissue permits to facilities that discharge wastewater? To what extent do facilities that discharge wastewater operate with expired permits? Have the permit-related goals of the 1995 Blue Ribbon Task Force been met? What are the reasons for permitting delays, and what are the potential consequences? What steps have been taken to address permit backlogs, and what steps remain?**

- **Does MPCA conduct enough inspections of facilities with point source water quality permits? Have the inspection goals of the Blue Ribbon Task Force been met? To what extent do facilities comply with their permits, and how often does MPCA respond to noncompliance with enforcement actions?**

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1 Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs: Findings and Recommendations (St. Paul, December 1995), 3.

To conduct this evaluation, we reviewed data from MPCA's information systems, the U.S. Environmental Protection Agency (EPA), the Blue Ribbon Task Force reports, and other sources. We also interviewed MPCA and EPA staff, permittee representatives, and representatives of environmental and business groups.

There are various topics that our review of MPCA's water quality point source activities did not evaluate. For instance, we did not examine whether MPCA's standards and practices are consistent with present scientific knowledge. We did not compare the content of MPCA's permits with that in other states, and we did not examine in depth the way that states other than Minnesota issue permits and monitor compliance. We did not evaluate MPCA's regulation of animal feedlots, which we reviewed in detail in a 1999 report.[2]

In response to additional questions posed by the Legislative Audit Commission in May 2001, we issued a second report on MPCA in January 2002, titled *Minnesota Pollution Control Agency Funding*. That report addresses agency-wide funding issues, some of which are relevant to MPCA's water quality point source activities. For instance, the *MPCA Funding* report discusses water quality fees, implementation of the federally-mandated "total maximum daily load" water quality regulations, and options for funding MPCA services.

Chapter 1 of this report provides background on MPCA and its water quality point source program. Chapter 2 examines issuance of water quality point source permits, and Chapter 3 examines MPCA's activities to monitor compliance with these permits. The report's appendices list members of the MPCA Board and the 1995 Blue Ribbon Task Force.

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2 Office of the Legislative Auditor, *Animal Feedlot Regulation* (St. Paul, January 1999). A small number of Minnesota's feedlots are required to obtain permits under the National Pollutant Discharge Elimination System, and these facilities were among those for which we examined permitting and compliance issues. In November 2001, the Minnesota Environmental Quality Board issued a draft Generic Environmental Impact Statement on Animal Agriculture, which discussed the adequacy of feedlot regulation, among other topics.

1 Organization and Staffing

SUMMARY

About 9 percent of Minnesota Pollution Control Agency (MPCA) staff worked in the water quality "point source" program in fiscal year 2001—mostly issuing, monitoring, and enforcing water quality permits. Staffing for this program (and water quality activities, in general) will increase during the present biennium, as a result of budget decisions made by the 2001 Legislature. Meanwhile, staffing for the agency as a whole will decline by 2003 to its lowest level in a decade. A major staff reorganization in 1998 resulted in a variety of problems and challenges that MPCA will continue trying to address during the present biennium.

In 1967, the Legislature created the Minnesota Pollution Control Agency (MPCA) "to meet the variety and complexity of problems relating to water, air and land pollution in the areas of the state affected thereby, and to achieve a reasonable degree of purity of water, air, and land resources of the state."[1] The agency's budget and staff size have grown considerably since its creation, as have its responsibilities.

In this chapter, we address the following questions:

- **How is MPCA organized? What were the main elements of MPCA's 1998 reorganization? What necessitated MPCA's organizational "course correction" in 2001?**

- **How many staff work in MPCA's "point source" water quality program? What activities do they perform, and how are they funded?**

GOVERNANCE

MPCA has a nine-member citizens board and more than 700 employees.

State law defines the MPCA as a nine-member board, but it is also an organization of more than 700 employees. The board consists of a commissioner—who is the administrative head of the agency—and eight members appointed by the Governor. By law, the commissioner serves as chair of the board. The law includes some restrictions regarding board appointments. For example, one member must be a representative of organized labor, and another must be knowledgeable about agriculture. No board members other than the

1 *Minn. Stat.* (2000), §116.01.

commissioner may be state or federal government employees, and up to two members may be local government officials. The law requires the board to be "broadly representative of the skills and experience necessary" to carry out the agency's statutory responsibilities.[2] Appendix A lists the present members of the MPCA Board.

If requested by one board member, the full MPCA Board must make final decisions on permits and rules.

The MPCA Board has authority to adopt agency rules and act on requests for variances from certain rules.[3] Also, if requested by at least one of its members, the board is required by law to make final decisions on (1) the need for environmental assessment worksheets and environmental impact statements,[4] (2) issuance, reissuance, modification, or revocation of pollution-related permits, and (3) variances from MPCA rules. In addition, any person can ask the commissioner to have the board make a final decision on these or other matters, and the commissioner may grant or deny the petition.[5] The board also determines the scope and adequacy of environmental impact statements. Usually, the board addresses issues by acting on specific cases. It has played a more limited role in developing agency-wide policies and budgets and in reviewing agency performance.[6]

For decisions that do not require action of the entire board, state law authorizes the commissioner to act on the board's behalf. The law requires the commissioner to "organize the agency" and hire staff needed to fulfill the agency's duties.[7]

KEY ORGANIZATIONAL CHANGES

For many years, MPCA staff were organized into divisions related to specific areas of regulatory authority—water quality, air quality, solid waste, and hazardous waste. But, in the mid-1990s, MPCA began emphasizing a "multi-media" approach. This approach recognized that pollution from one medium (such as emissions of mercury into the air) may significantly contribute to pollution in another medium (such as mercury in lakes and rivers). Also, many facilities have permits in more than one medium, and MPCA thought that a more integrated approach to permitting, compliance monitoring, assistance, and enforcement would make the agency more efficient and effective.

2 *Minn. Stat.* (2000), §116.02, subd. 1 and 3.

3 The board must act on requests for variances from agency rules (1) that would change an air, soil, or water quality standard, or (2) when the commissioner has determined that granting the variance would have a "significant environmental impact" (*ibid*., subd. 6). The board must also act on permit applications with requests for variances or contested case hearings.

4 An environmental assessment worksheet sets forth facts necessary to determine whether an environmental impact statement is required for a proposed action. An environmental impact statement discusses the impact of a proposed action that has the potential for significant environmental effects.

5 *Minn. Stat*. (2000), §116.02, subd. 8. The board can make final decisions on "any other action not specifically within the authority of the commissioner." If the commissioner denies a petition for a board decision, the commissioner must advise the board and petitioner of the reasons for denial.

6 Office of the Legislative Auditor, *Pollution Control Agency* (St. Paul, January 1991) recommended that the board focus more on overall policy and evaluation of agency effectiveness. Although the board sometimes develops overall policy (such as the agency's policy on phosphorus control), it still addresses most issues on a case-by-case basis.

7 *Minn. Stat.* (2000), §116.03, subd. 2.

In addition, beginning in the early 1990s, MPCA moved some staff from its central office in St. Paul to its regional offices. In 1990, fewer than 10 percent of the agency's staff were based in locations other than St. Paul, and staff often had to travel considerable distances to inspect facilities or provide on-site assistance. By 2001, 21 percent of MPCA total staff and 34 percent of the agency's water quality staff were located in regional offices outside St. Paul. One component of MPCA's water-related activities is regulation of wastewater pollution from "point sources," or discrete discharge locations. As of January 2001, 26 percent of staff in MPCA's water quality point source regulatory program were based at locations outside the Twin Cities area.

In 1998, MPCA implemented a major reorganization.

In 1996, MPCA began a strategic planning process that culminated in "GOAL 21"—a set of four strategies to guide the agency into the 21st century. Specifically, MPCA wanted to (1) identify common goals of the agency and its "customers," (2) measure environmental outcomes (and spend resources to achieve the best results), (3) form alliances with a broad range of interested parties, and (4) become a "learning organization" that would embrace new ideas and changes.

In 1998, MPCA implemented a new organizational structure that eliminated the agency's media-based divisions. Three of the new divisions (Metro District, North District, and South District) grouped regulatory and cleanup staff by their locations, and three divisions (Policy and Planning, Environmental Outcomes, and Fiscal Services) provided services to staff throughout the agency, such as ambient environmental monitoring, information systems, rule development, budgeting, and accounting. According to MPCA officials, the 1998 changes were also intended to make the agency more "customer-focused," help it make more decisions based on overall environmental risks, and give more attention to "nonpoint" pollution sources (such as agricultural runoff and vehicle emissions).

While the 1998 changes may prove beneficial in the long term,

- **The reorganization strained staff resources, left staff unclear about agency priorities and individual responsibilities, and became a focus of concern among the agency's external constituents.**

For example:

- A March 2001 MPCA staff report on the agency's regulation of "major" facilities concluded: "As an organization in whole, we do not have a shared understanding of how the agency was designed to work under the reorganization. …We lack risk-taking and trust. …We need a better defined set of priorities based on environmental risk. …Our management and leadership need to be more effective in planning and making decisions. ...We don't have an overall compliance strategy for [major facilities]. …Our geographic and multi-media approaches are not always working." The report said that there is "unclear direction to staff on work efforts and an inability to focus scarce resources on the most important work."[8]

8 MPCA Majors Design Team, *Majors Design Team Final Report* (St. Paul, March 1, 2001), 7, 13-15.

The 1998 reorganization did not adequately clarify agency priorities and lines of accountability.

- A February 2001 MPCA staff report on ways to redesign program delivery concluded: "The Agency has not had a well-defined process to determine what environmental work will be worked on given the finite resources available. …[MPCA] water programs operate as a loose affiliation of activities rather than an integrated and interactive set of actions focused on a well-defined common goal. ...The Agency lacks clear, overarching priorities and a sustained focus on environmental outcomes using risk-based approaches. …The Agency has failed to consistently identify what is 'off the plate' and focus limited resources on the most important problems/issues impacting the environment. …The Agency has not had or clearly communicated a clear vision, and this lack of vision has created confusion for Agency staff. …There is a lack of a common and shared understanding by leadership and staff of what GOAL 21 really was about and how it was supposed to be implemented."[9]

- In 2000, MPCA management initiated a "climate study" that used interviews and focus groups to identify the perceptions of more than 10 percent of MPCA's staff. Themes that emerged from this study included the following: "The agency lacks a shared sense of direction from its leaders, even with all the visioning and planning that continue to consume resources. There's a lack of shared values, commitments, and priorities around how to protect the environment. …Decisions don't get made in a timely manner (or at all) due to unclear lines of authority, analysis paralysis, and uncertainty about how the agency design is supposed to work." Staff also expressed concerns about low morale, staff turnover, and internal communication.[10]

- During 2001, MPCA management summarized key concerns expressed by employees and agency "stakeholders," including the following: "We haven't been clear about priorities, so we try to do everything. …Core programs are not adequately covered and our lack of a media focus is causing program delivery to suffer. The complexity of the organization has resulted in lack of or long, drawn out processes for decision making… [and] unclear roles and responsibilities for various teams."[11]

- Numerous people outside MPCA—including federal officials and representatives of environmental groups, business groups, and local governments—told us during 2001 that it was difficult to identify which MPCA staff were accountable for decisions on particular issues.

In addition, the strategic planning and reorganization process was time-consuming for the agency. MPCA determined that GOAL 21 cost the agency about $1.5 million during fiscal years 1996-98, but this did not include time spent by

9 MPCA Program Delivery Design Team, *Phase 1 Final Report* (St. Paul, February 26, 2001), 10-12.

10 MPCA, *Employee Climate Study and Management Response* (St. Paul, March 2001), 2-4. Of the staff who participated in the climate study, 50 percent said they felt positive about working at MPCA, 20 percent said they felt negative, and 30 percent described their feelings as "neutral."

11 MPCA, *Course Correction Update* (St. Paul, undated), 3.

the agency's "executive team."[12] One participant told us that many of MPCA's top managers spent several days a week on reorganization activities over a period of months and even years, which significantly reduced the time they had for their other management responsibilities. Some agency officials told us that these activities were very time-consuming because MPCA had never before reviewed its structure and strategic direction in a comprehensive way.

After soliciting input from employees and others, MPCA management acknowledged the need for organizational changes. In March 2001, management proposed a "course correction," citing a need for a shared vision, clearer priorities, greater operating efficiency and effectiveness, better decision making, improved internal communication, and more focus on employee concerns.[13] The proposed changes were to take place over an 18-month period. In October 2001, MPCA identified a set of environmental goals and objectives for the next five to ten years, which was part of the agency's effort to establish a "shared vision."[14]

MPCA implemented a new organizational structure in 2001.

In November 2001, MPCA implemented a new organizational structure, shown in Figure 1.1.[15] The staff who issue, monitor, and enforce water quality permits are in the Regional Environmental Division and Major Facilities and Remediation Division. MPCA officials believe that having separate divisions for small, dispersed sources of pollution (in the Regional Environmental Management Division) and large facilities (in the Major Facilities and Remediation Division) will promote innovative approaches to addressing each. Also, agency officials told us that placing all of the regional offices under the direction of the Regional Environmental Management Division will contribute to greater consistency and clearer lines of accountability.

MPCA officials told us that they undertook the 1998 reorganization with the expectation that some of its components would need review and revision later. They said that MPCA faces challenges similar to those of environmental agencies in other states, and they believe that the direction of the 1998 reorganization and 2001 course correction are consistent with innovative environmental practices that have been highlighted elsewhere.[16] We did not evaluate whether MPCA's organizational changes were the right ones for the long-term health of the agency. Whatever the long-term value of these changes, however, the reorganization resulted in considerable short-term disruption and confusion. Furthermore, as we

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12 These were the cumulative costs as of February 1998. Since fiscal year 1998, staff have not tracked time or expenditures devoted to GOAL 21 or agency reorganization.

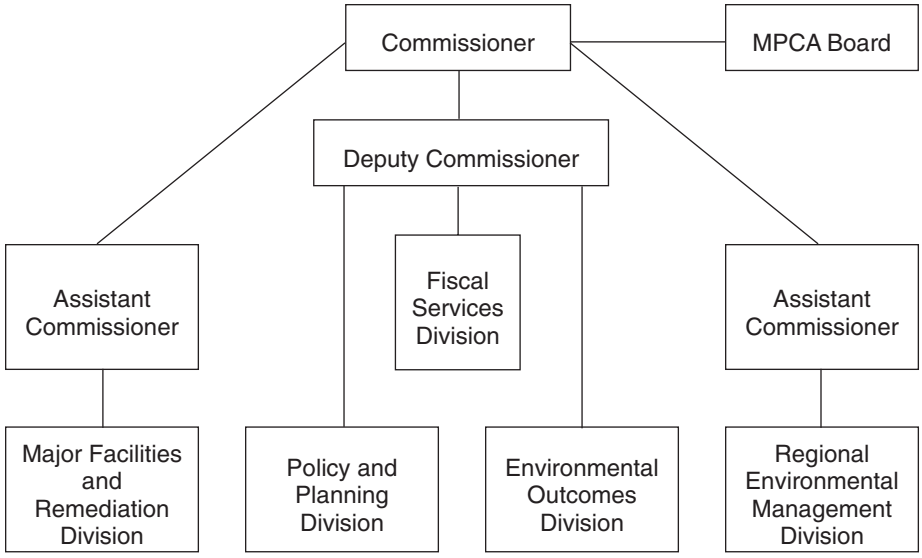
13 MPCA, *Course Correction Update*.

14 MPCA, *Establishing a Shared Vision: MPCA's Environmental Goals and Objectives* (St. Paul, October 2001).

15 The Major Facilities and Remediation Division oversees larger, more complex facilities and various pollution cleanup programs. The Regional Environmental Management Division works on issues related to smaller, more dispersed pollution sources (including point, nonpoint, and mobile sources). The Policy and Planning Division develops strategies and programs to address various environmental problems, and it is smaller than it was in the previous organization. The Environmental Outcomes Division monitors environmental conditions, helps to establish environmental standards and goals, and measures progress toward those goals.

16 For instance, MPCA officials think that their changes are consistent with those recommended by the National Academy of Public Administration in two recent reports: *Resolving the Paradox of Environmental Protection: An Agenda for Congress, EPA, and the States* (Washington, D.C., September 1997) and *Environment.gov: Transforming Environmental Protection for the 21st Century* (Washington, D.C., November 2000).

Figure 1.1: MPCA Organization, Effective November 2001



SOURCE: MPCA.

discuss in Chapter 2, the reorganization has sometimes impeded the agency's progress toward important objectives, such as reduction of the water quality permit backlog.

STAFFING AND FUNDING

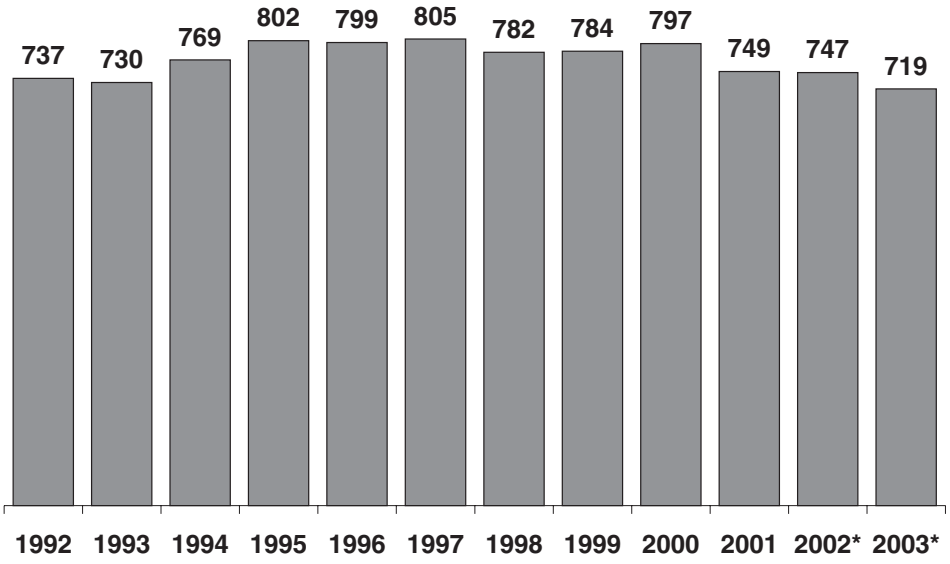
MPCA reached its peak staffing in 1997.

MPCA's staff size has grown as the agency has received additional responsibilities. For instance, a significant portion of MPCA's staff in recent years have worked on federal and state pollution "remediation" programs that did not exist when the agency was created—such as clean-up of Superfund sites and leaking storage tanks. MPCA's total staff size grew from 35 employees at its inception in 1967 to about 800 in the mid-1990s.

Between fiscal years 1995 and 2000, however, staffing levels changed little (see Figure 1.2). Staffing declined in fiscal year 2001 as the agency stopped filling vacancies in anticipation of a staff reduction during the 2002-03 biennium. As a result of budget decisions for fiscal years 2002-03, MPCA staffing in mid-2003 will be 11 percent lower than the peak year (1997) and 2 percent lower than it was ten years ago.

MPCA staff work on activities related to various media (water, air, ground water, and hazardous waste), but the largest proportion of staff work on activities related

Figure 1.2: MPCA Full-Time-Equivalent Staff, FY 1992-2003



*Projected FTE.

SOURCE: MPCA.

In 2001, 28 percent of MPCA staff worked on activities related to surface water.

to water quality. (The term "water quality," as used in this report and by MPCA, refers to surface water rather than ground water.) As of January 2001, 28 percent of MPCA staff worked on activities related to water quality, compared with 18 percent for ground water, 15 percent for hazardous waste, and 14 percent for air quality. Another 26 percent of staff did not specialize in a particular medium.[17]

MPCA's water quality program consists of a variety of staff activities, as shown in Table 1.1. These activities address pollution from "point sources" (such as factories and wastewater treatment plants) and "nonpoint sources" (such as runoff from farms, animal feedlots, and storm sewers). MPCA's water quality staff also provide a variety of non-regulatory services, such as monitoring the condition of Minnesota's rivers, streams, and lakes, and working with local communities to develop plans for regional watersheds or basins. Table 1.1 shows that:

- **About 66 full-time-equivalent (FTE) staff, or 9 percent of MPCA's total staff, worked in the water quality point source program.**

17 The "non-media" staff included a variety of the agency's administrative, clerical, fiscal, human resources, information systems, public information, and planning staff. MPCA implemented a new time tracking system in January 2002, and agency managers told us that this will improve the agency's ability to classify the work of its employees and show the environmental programs they support.

Regulation of "point source" water pollution is MPCA's largest water-related program.

Table 1.1: Staff in MPCA's Water Quality Activities, January 2001

Work Program	Full-Time Equivalent Staff
Point Source	**65.9**
Watershed/Basin Planning	25.4
Feedlots	24.8
Nonpoint Source Pollution—Other	16.2
Clean Water Partnership	11.9
Stormwater	10.1
Individual Sewer Treatment Systems	7.4
Lake Assessment	7.2
Total Maximum Daily Loads	6.9
Biocriteria Development	6.8
Support	5.1
Wastewater Treatment Operators	4.9
Environmental Review	4.3
Sludge/Biosolids	4.2
Minnesota River	3.1
State Revolving Fund (construction loans)	2.2
Wetlands	2.2
Leadership	1.3
Emergency Response	0.4
Malformed Frogs	0.2
Source Water Protection	0.2
TOTAL	210.5

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

In addition, Table 1.2 shows the types of activities to which MPCA's water quality staff were assigned, as of January 2001.[18] It indicates that:

- **About 74 percent of the water quality point source staff worked on permitting, compliance determination, and enforcement activities.**

It is worth noting that the water quality point source program does not include all of MPCA's water quality staff who worked on permitting, compliance determination, and enforcement. For instance, it does not include staff who issued and monitored permits that regulated stormwater runoff or animal feedlots.[19] MPCA had a total of about 78 FTE staff who issued point source, feedlot, and stormwater permits, determined compliance with these permits, or enforced the terms of the permits.

18 It would be interesting to track changes in MPCA's staffing over time—for example, by "core activities" or work program. Unfortunately, the information reported here is based on a survey of MPCA supervisors and managers initiated by the agency for the first time in 2000, so it is not possible to reliably compare recent staffing patterns with earlier periods.

19 Federal regulations promulgated in 1990 govern MPCA's stormwater-related activities. Under "Phase 1" of the federal regulations, MPCA had to issue stormwater permits to (1) the Minneapolis and St. Paul storm sewer systems, (2) construction sites in Minneapolis and St. Paul disturbing at least five acres of land, and (3) certain industrial facilities throughout the state. "Phase II" of the federal regulations will require MPCA to issue stormwater permits to additional municipalities, as well as construction sites disturbing at least one acre of land.

Table 1.2: Staff Activities in MPCA's Water Quality Programs, January 2001

Staff Activity	MPCA's Water Quality Point-Source Program		All MPCA Water-Related Programs	
	Number of FTE	Percentage of FTE	Number of FTE	Percentage of FTE
Assistance	8.1	12.3%	52.7	25.0%
Compliance Determination	13.7	20.8	22.5	10.7
Enforcement	6.9	10.5	12.9	6.1
Monitoring and Evaluation	1.2	1.7	34.1	16.2
Permitting	27.9	42.3	42.8	20.3
Policy and Rule Development	5.1	7.7	17.5	8.3
Administration	2.4	3.6	14.1	6.7
Other	0.7	1.0	13.9	6.6
TOTAL	65.9	100.0%	210.5	100.0%

SOURCE: Office of the Legislative Auditor analysis of data from MPCA's work survey.

The point source program has four main funding sources.

MPCA receives most of its funding for the water quality point source staff from four sources: the state Environmental Fund (46 percent), the state General Fund (28 percent), federal funds (12 percent), and the Minnesota Public Facilities Authority (12 percent). The Environmental Fund includes revenues from a variety of sources designated for environmental uses. Its largest source of revenues for the water quality point source program is annual fees paid by facilities with permits to discharge wastewater. The Public Facilities Authority (PFA) helps to finance capital improvements to local wastewater facilities. MPCA receives a portion of the interest on loans administered by PFA, and it uses this to pay for staff who review local wastewater facility plans and specifications.

MPCA monitors water quality, regulates water pollution, and helps communities plan ways to protect water resources.

As a result of legislative actions, MPCA's water quality staffing levels will increase.

In the Governor's budget proposal for the 2002-03 biennium, MPCA proposed to reduce the agency's staff by about 66 FTE and redirect resources from areas of lower priority to those of higher priority. The budget included a combination of proposals to eliminate programs and reduce or increase staff assigned to certain activities. The activities in which MPCA proposed reductions or eliminations were those that were "winding down, have succeeded in achieving substantial results already, or deal with problems that pose a lesser health or environmental threat in Minnesota communities than higher-priority problems."[20] The reallocations eventually authorized by the 2001 Legislature will result in a net loss of 71 FTE in MPCA by the end of fiscal year 2003 biennium, but they will result in a net increase of 2.5 staff in water-related activities. Among the reallocations in the water quality area, the Legislature authorized an increase of 6.0 FTE in water quality point source activities and 3.0 FTE in stormwater regulation.[21] In addition to the changes that will result from internal staff reallocations, the Legislature used revenues from the state's Solid Waste Fund to increase staffing for MPCA's animal feedlot regulation by 9.0 FTE.

20 MPCA, *MPCA Staff and Environmental Work Reductions* (St. Paul, March 6, 2001), 1.

21 MPCA, *Impacts of MPCA Downsizing* (St. Paul, November 2001), 1.

2 Permit Issuance

SUMMARY

Issuance of federal and state water quality permits is one of the primary ways that the Minnesota Pollution Control Agency (MPCA) regulates water quality. As a result of the agency's own actions as well as factors beyond its direct control, the number of facilities operating under the terms of expired permits grew in recent years. The size of the point source permit backlog exceeds federal and state targets. The impact of delays in the permitting process varies, but such delays can adversely affect environmental quality, business decisions, local development, and MPCA's credibility as a regulator. MPCA should take additional steps to improve the timeliness of its permitting process and report to the Legislature on its progress before the 2003 legislative session.

In 1995, a Governor-appointed Blue Ribbon Task Force on Water Quality Funding concluded that "Minnesota's [water quality point source] permitting activities are equal in cost to that of other states surveyed yet slightly lower in the level of service provided."[1] The task force recommended that MPCA reduce the percentage of facilities operating with expired permits and the average weeks to issue a permit, while increasing the number of permits issued per staff person.

During the 2001 legislative session, some legislators questioned how well MPCA was performing its "core" functions, including those addressed in the Blue Ribbon report. This chapter discusses MPCA's track record in one of these areas, water quality point source permitting, and it addresses the following questions:

- **How much time does it take MPCA to issue and reissue permits to facilities that discharge wastewater? To what extent do facilities operate with expired permits? What are the reasons for permit delays, and what are the potential consequences?**

- **What steps have been taken to improve the permitting process, and what steps remain?**

- **Have the permit issuance goals of the 1995 Blue Ribbon Task Force been met?**

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1 Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs (St. Paul, December 1995), 27.

TIMELINESS OF MPCA ACTIONS ON PERMIT APPLICATIONS

In 1972, Congress passed the Clean Water Act to restore and maintain the nation's water quality. The act aimed to eliminate pollution discharges into the nation's waters and achieve water quality levels that support aquatic life, recreation, and safe consumption of fish.[2] According to the act, any discharge of a pollutant from a point source to a navigable water of the United States requires a National Pollutant Discharge Elimination System (NPDES) permit. The federal government has delegated authority to Minnesota and 43 other states to issue such permits.

MPCA administers a variety of water quality permits.

As of July 2001, MPCA regulated a total of 1,424 facilities through NPDES and "state-only" permits, as shown in Table 2.1.[3] Most MPCA permits are "individual" permits, with each permit developed separately for a particular facility. These individual permits include (1) NPDES "major" facility permits, issued to municipal facilities designed to discharge over a million gallons of water per day and selected industrial facilities;[4] (2) all other NPDES permits developed for individual facilities (called "regular" facility permits); and (3) state disposal system (SDS) permits, which cover disposal of wastewater on land rather than in surface water. In addition, MPCA also issues "general" permits, or single permits that cover multiple NPDES or SDS facilities with similar types of operations and discharges.

MPCA issues these permits for five-year periods, and applications for *renewal* of these permits represent the majority of the permit applications MPCA receives. Facilities seeking renewal of their permits must submit a written application for permit reissuance to MPCA at least 180 days before the existing permit expires.[5] When a complete application has been submitted, MPCA staff determine effluent

Table 2.1: Number of Facilities Regulated Through Point Source Water Quality Permits, July 2001

	NPDES Major Facility Permits	NPDES Regular Facility Permits	General Permits	State Disposal System Permits	Total
Municipal	57	459	50	104	670
Industrial	27	330	322	75	754
TOTAL	84	789	372	179	1,424

NOTE: Does not include stormwater, sanitary sewer, or non-NPDES feedlot permits.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

2 *33 U.S. Code*, sec. 1251 (1994).

3 This does not include stormwater, sanitary sewer, and non-NPDES feedlot permits.

4 MPCA and EPA together decide which facilities are considered "major." In general, however, major facilities have potential to cause significant water quality problems.

5 *Minn. Rules* (2001), ch. 7001.0040, subp. 3.

limits that will apply to the facility and prepare a draft permit. The MPCA commissioner issues a public notice regarding the draft permit, and this is typically followed by a 30-day period during which the agency receives public comments on the draft permit. Any person may petition MPCA for a "contested case hearing" on a draft permit, and the MPCA Board determines whether to authorize or deny such petitions. If a permittee has submitted a timely application for permit reissuance, the terms and conditions of an expired permit remain in effect until the agency issues a new permit.[6]

Permittees that submit timely applications for renewal can continue to operate under expired permits.

In addition to permit renewals, MPCA issues *new* permits to municipalities or industries that are proposing construction of new wastewater treatment facilities. Also, existing permittees need to apply for permit *modifications* if they propose to expand facility capacity, replace their facilities, or make other changes in the terms of their permits prior to expiration. MPCA has generally given higher priority to applications for new or modified permits than to applications for permit renewals—primarily because new and modified permits often have the potential to reduce pollution discharges, facilitate economic development, or help permittees address problems that have caused noncompliance with environmental requirements. Nonetheless, applications for new, reissued, and modified permits are all important components of MPCA's overall permitting workload.

An important measure of the timeliness of water quality permitting is the size of the permit "backlog"—that is, the number of wastewater dischargers operating with permits that have passed their expiration date. At the time of the 1995 Blue Ribbon Task Force on Water Quality Funding, 34 percent of water quality permittees were operating under the conditions of expired permits. The task force concluded that MPCA should be able to issue more permits with its existing resources, and it set goals for backlog reduction and improved staff efficiency.[7] We examined the status of the backlog in subsequent years and found that:

- **The percentage of Minnesota facilities operating under the terms of expired water quality permits grew in recent years and exceeds federal and state targets.**

Minnesota has one of the nation's highest proportions of facilities operating under expired permits.

As of July 2001, 41 percent of all facilities had expired permits, up seven percentage points from the backlog at the time of the Blue Ribbon Task Force. In addition, 54 percent of Minnesota's *major* NPDES facilities had expired permits in July 2001. Nationally, 25 percent of major facilities had expired permits in March 2001, and Minnesota's backlog for major facilities was the sixth highest among the states.[8] EPA and MPCA officials told us that some states have smaller backlogs than Minnesota because they try to reissue permits at the time of expiration and rely on the appeals process or subsequent permit amendments to address issues unresolved at the time of the reissuance. In contrast, they said, MPCA tries to reach agreement with interested parties on all "contested" issues before reissuing each permit. This can lengthen the time required to draft a permit, although MPCA officials believe that such an approach can save money

6 *Minn. Rules* (2001), ch. 7001.0160.

7 *Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs*, 23-30.

8 U.S. EPA, *Backlog Status Report for Majors* (Washington, D.C., March 2001), http://www.epa.gov/npdes/pubs/grade.pdf, accessed November 12, 2001.

if it reduces the number of cases going to the MPCA Board for a decision on the contested issues.

Minnesota's permit backlog has exceeded federal and state targets.

Nevertheless, it is important to note that Minnesota's permit backlog has exceeded federal and state targets. EPA asked states to reduce their backlogs of major facilities' NPDES permits to 20 percent by the end of 1999 and 10 percent by the end of 2001.[9] In addition, Minnesota's 1995 Blue Ribbon Task Force on Water Quality Funding set a target of reducing the backlog of *all* water quality permits from 34 percent to 28 percent by the end of fiscal year 1999. In 1999, MPCA told EPA that it expected that the backlog for major facilities would be at 20 percent by September 2000.[10] In June 2000, MPCA told EPA that it "has a commitment to reduce the backlog for major facilities to 25 percent for this year."[11] These targets were not met.

We examined whether the number of MPCA actions on permit applications has changed since the Blue Ribbon report. That report said that MPCA issued, reissued, or modified 236 permits in fiscal year 1994.[12] There was a small (4 percent) increase in the number of facilities with permits between 1994 and 2001, so MPCA would have needed to increase its annual number of permit approvals just to keep the backlog from growing.[13] MPCA would have needed *further* increases in permit approvals to reduce the percentage of facilities with expired permits. However, Table 2.2 shows that:

- **MPCA issued, reissued, or modified an average of 215 permits annually in fiscal years 1997 to 2001, which was 9 percent less than the number of comparable actions reported by the Blue Ribbon Task Force for fiscal year 1994.**

We also examined how much time it takes MPCA to issue or reissue a permit. The Blue Ribbon Task Force reported that it took MPCA an average of 47 weeks in fiscal year 1994 to issue or reissue a permit after receiving an application. The task force set a goal of reducing this time to 36 weeks. Permittees are required to submit an application for reissuance of their permits six months prior to expiration, so many permits taking longer than 26 weeks to reissue would expire before they are reissued. As shown in Figure 2.1, we found that:

- **MPCA's average time to issue or reissue a permit increased significantly in recent years.**

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9 U.S. EPA, *NPDES Permit Backlog Reduction Effort*, http://www.epa.gov/owmitnet/permits/backlog/backlog.htm, accessed May 24, 2001. EPA also asked states to reduce their backlogs of *all* permits to 10 percent by the end of 2004. EPA operates point source permitting programs for states and territories that have not been delegated authority to run their own programs. As of March 2001, 31 percent of the major facilities under EPA's jurisdiction were operating with expired permits.

10 J. David Thornton, MPCA, letter to Rebecca Harvey, U.S. EPA, October 8, 1999.

11 MPCA, *Water Quality Backlog Strategy* (St. Paul, June 30, 2000).

12 The Blue Ribbon report did not present information on the number of permit terminations in 1994. Also, the report indicated that MPCA issued, reissued, or modified 236 permits in 1994, but it did not indicate the number in each of these categories. Permit "modifications" are changes to permits that are made prior to permit expiration. Modifications are an important part of MPCA's workload, but they do not reduce the number of facilities operating with expired permits.

13 The Blue Ribbon report said that there were 1,365 facilities with permits in fiscal year 1994.

Table 2.2: Water Quality "Permit Actions" by MPCA, FY 1997-2001

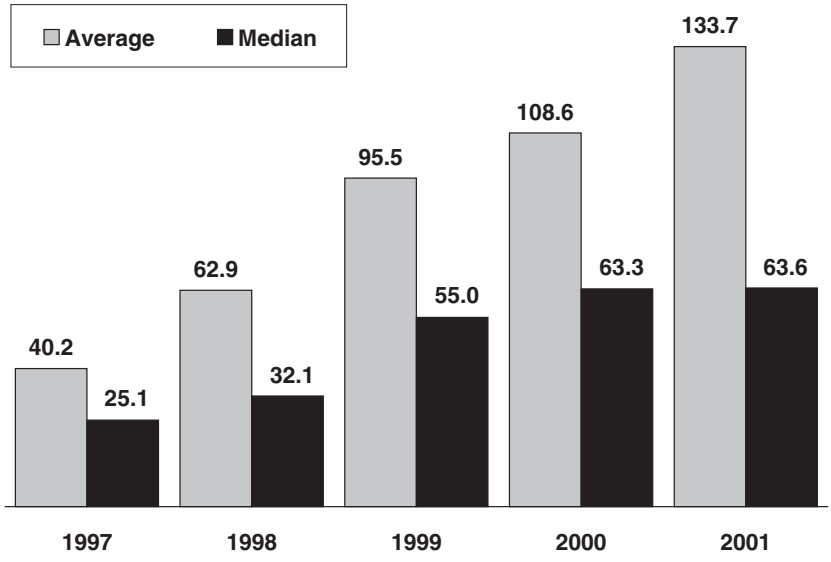
Action	1997	1998	1999	2000	2001	1997-2001 Annual Average
Permits issued or reissued	226	208	119	187	166	181
Permits modified[a]	30	33	22	44	38	33
Permits terminated	87	102	55	91	68	81
Total permit actions	343	343	196	322	272	295
Permit actions without terminations	256	241	141	231	204	215

[a]MPCA management told us that the MPCA information system used in this analysis may not accurately reflect the total number of modifications conducted by MPCA in a given year. Therefore, where available (FY 2000 and 2001), we report the total number of modifications based on records kept by an MPCA permit supervisor.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

In recent years, it has taken MPCA more time to issue permits.

Figure 2.1: Average and Median Number of Weeks to Issue Water Quality Permits, FY 1997-2001



SOURCE: Office of the Legislative Auditor analysis of MPCA data.

In fiscal year 2001, it took MPCA an average of 134 weeks to issue or reissue each permit from the date of application.[14] In September 2001, we reviewed the status of all major facilities with expired NPDES permits, and MPCA had not yet begun work on a majority of these permits.[15]

Figure 2.1 shows that the *median* number of weeks to issue a permit is much less than the *average*, but the median grew significantly between 1997 and 2001. The median weeks to issue an NPDES permit grew from 21 weeks in 1997 to 110 weeks in 2001. The median issuance time for all permits (including NPDES, state-only, and general permits) grew from 25 weeks in 1997 to 64 weeks in 2001.

There is some variation among MPCA's regional offices in the size of permit backlogs. Typically, the subdistrict office for the Twin Cities metropolitan area has had a smaller backlog and issued permits more quickly than other offices.[16] MPCA staff told us that many of the Twin Cities facilities are larger and more environmentally significant than other facilities, so they have often received higher priority in the permitting process.

MPCA has given priority to permits needed for construction projects.

In addition, MPCA officials told us that they give high priority to permit applications required for construction projects. Such projects often need prompt action to avoid delays in construction schedules. Unfortunately, however, MPCA's permit information systems do not identify which permit applications are related to construction projects, so we could not systematically examine how long it takes for MPCA to act on construction-related permit applications. MPCA and permittees told us that actions on construction-related permit applications have sometimes taken longer than expected.

Permitting delays do not always cause problems in the cases in which they occur. For example, MPCA staff and environmental advocacy groups told us that permit reissuance delays may pose little risk of environmental harm in cases where there have been no significant changes in environmental standards or requirements since the previous permit was issued. Also, full public discussion of draft permits can take time, but it may contribute to better permit provisions. Still, based on our discussions with permittees and other interested groups, we think it is important to observe that:

- **Delays in the permitting process have the potential to adversely affect environmental quality, business decisions, local development, and MPCA's credibility as a regulator, although the impact of delays in individual cases varies.**

From an environmental perspective, the backlog of expired permits may delay implementation of environmental standards that have been updated since the

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14 We computed averages based on permit issuances and reissuances, not modifications. Our analysis excluded 86 permits for which MPCA's information system reported no application date.

15 There were 45 expired permits as of July 2001. At the time of our review in September 2001, MPCA had not yet started work on 25 of these reissuances, and MPCA did not anticipate starting work within the next six months on 19 of them.

16 For permits issued in fiscal years 1997-2001, the average weeks to issue a permit was 62 in the Twin Cities area, compared with 91 weeks elsewhere.

previous permit was issued. For instance, the MPCA Board adopted a phosphorus strategy in 1999, and permit delays have probably slowed the implementation of new phosphorus limits and monitoring requirements. From a business perspective, delays in the permit process may impede facility expansion or upgrades.[17] In addition, business representatives told us that they cannot transfer ownership of businesses if they have expired permits, and they said that it is difficult to project future business costs while operating under an expired permit. Also, local governments rely on MPCA permits to authorize expansion of local wastewater system capacity before some business and housing developments can proceed. Some local officials think that the length and uncertainty of Minnesota's environmental permitting process have been factors in the decisions of some companies to build or expand in other states. Furthermore, officials with the Minnesota Public Facilities Authority told us that permitting delays have likely contributed to a slowdown in the number of municipal wastewater loans it has approved and have caused some municipalities to withdraw applications for wastewater improvements.[18]

Permitting delays can cause environmental and business problems, although not all delays have adverse effects.

MPCA's permit delays may also undermine the agency's overall credibility as a regulator and contribute to problems of a more general nature. For instance, representatives of industries and local governments told us that it is hard for them to justify to their administrators or boards why they are operating under the terms of expired permits. Also, permittees resent MPCA's lack of timely action on permits because state rules prescribe deadlines for submission of their permit renewal applications, as well as fees to help pay for MPCA's permitting efforts. In addition, there is the possibility that the large permit backlog could cause EPA to intervene in Minnesota's permitting process, although regional EPA staff we talked with expressed little concern about the size of Minnesota's backlog and said there is no imminent danger of Minnesota losing its delegated authority from EPA.[19]

In late 2001, MPCA reorganized its permit staff to help address the backlog.

Recently, MPCA reorganized its permit staff in an effort to reduce the backlog of permits awaiting reissuance. In November 2001, MPCA officials limited the number of staff assigned to new and modified permit issuance to 13.5 full-time-equivalent (FTE) staff, and it assigned 16 FTE staff to permit reissuance. (Previously, staff were not assigned to one category or the other, but new and modified permits generally received higher priority.) MPCA officials hope that having some staff assigned solely to permit reissuance will result in increased attention devoted to facilities operating with expired permits. The impact of these staff reassignments remains to be seen. MPCA officials hope that the staff

17 Permit applicants told us that MPCA delays have sometimes reduced their ability to contest challenges to permit conditions made by interest groups late in the permit process. To avoid delays in construction schedules, applicants said that they sometimes have agreed to permit conditions that they consider inappropriate.

18 The Public Facilities Authority administers grant and loan programs for wastewater and stormwater projects, and it reviews the financial capability of applicants for this funding.

19 In contrast to the absence of concern we heard from regional staff, EPA has set national goals for backlog reduction and accepted a recommendation from its inspector general that the national permit backlog be viewed as a "material weakness" under the Federal Managers Financial Integrity Act.

reassignments will not lengthen the process for facilities seeking new or modified permits—partly because legislation passed in 2001 authorized facilities to pay for MPCA staff overtime or MPCA consultant time if they need to get a permit faster than MPCA resources would otherwise allow.[20]

REASONS FOR GROWTH IN THE PERMIT BACKLOG

We explored reasons for MPCA's backlog of expired permits through a variety of approaches. We held roundtable discussions with permittees, MPCA permit staff, and MPCA supervisors. We talked with MPCA permit staff about many individual cases involving expired permits. We reviewed the Blue Ribbon Task Force report and examined MPCA's actions in response to the report. Overall, we conclude that:

- **A variety of factors have likely contributed to MPCA's growing permit backlog—some of which have been within the agency's direct control, and some of which have not.**

Many factors have contributed to the growing permit backlog.

It is not possible to quantify the exact impact of individual factors on MPCA's growing backlog. Some of the factors cited by people we talked with have not been measured in any systematic way; others are measurable, but it is hard to determine the magnitude of their impact. Below, we discuss several factors for which there seems to be some basis in fact and that were cited by a variety of people.

First, regulatory policy changes have increased the complexity of some permits. For instance, in 1995 EPA and states bordering the Great Lakes developed the "Great Lakes Initiative," which includes criteria for states to use when setting water quality standards for 29 pollutants and which prohibits "mixing zones" for these pollutants.[21] Since the mid-1990s, MPCA has also encouraged regions of the state to develop watershed or basin plans, which have subsequently been used as a basis for determining the types of phosphorus controls required in water quality permits. As a result, an estimated 60 percent of NPDES permit applications now receive a "phosphorus review" by MPCA staff, while such reviews were relatively rare before 1995.[22] The 1995 Blue Ribbon Task Force report said that MPCA staff spent an average of 10 to 15 hours per permit determining effluent limits for various types of pollutants.[23] MPCA staff estimate that the average time per permit spent today on phosphorus reviews alone often

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20 *Minnesota Laws* (2001), ch. 116.

21 The Great Lakes Initiative's permit-related impacts are limited to northeastern Minnesota facilities.

22 Estimate by MPCA water quality standards staff.

23 *Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs*, Appendix B, 14.

equals or exceeds the amount of time spent in 1995 reviewing all types of pollutants.[24]

In many cases, MPCA and permit applicants have spent months negotiating permit provisions.

Second, environmental groups, local government groups, and permittees have played more active roles in the permitting process in recent years—resulting in more challenges to draft permits and prolonged discussions about permit content. Some MPCA permit writers told us that water quality rules are not as prescriptive as those for solid waste and air quality, leaving more room for interpretation. They said that the agency has tried to get parties with varying interests to agree on permit content before placing draft permits on "public notice." MPCA staff cited many instances where this kind of case-by-case negotiation has added months of time to permit issuance—although MPCA does not have a time tracking system that allowed us to confirm whether staff spend more time on permit drafting today than they did five years ago. Despite MPCA's efforts to ensure that consensus is reached before permits are placed on public notice, there has also been an increase in the number of requests from citizens or groups for contested case hearings on draft permits. According to MPCA officials, the number of requests for contested case hearings for water quality permits averaged about one per year from 1990 to 1997 and five per year from 1998 to 2001.[25] MPCA officials estimated that each contested case hearing request that is eventually withdrawn by the requester or denied by the MPCA Board costs the agency $31,000 to $71,000—reflecting the staff time required for additional negotiations with the permittee and interested parties, as well as preparation of case documentation for the MPCA Board and commissioner.[26] Since 1995, the MPCA Board has approved only one contested case hearing request.

Third, MPCA's 1998 reorganization slowed the permitting process.[27] During the reorganization, MPCA officials changed the permitting assignments of many individual staff. MPCA staff told us that permits were sometimes assigned to staff who were not familiar with a facility and its relevant rules, and these permits were sometimes "lost" for extended periods or given low priority. A water quality permit writing manual might have been helpful to reassigned or newly hired permit writers, but MPCA does not have one—although a consultant recommended in 1996 that MPCA develop such a manual as a step toward

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24 MPCA water quality standards staff told us that phosphorus reviews for reissued permits average about 8 hours for minor permits, 16-24 hours for major permits, and 12 hours for general permits. Such reviews for newly-issued permits generally take longer than reviews for reissued permits. Besides phosphorus reviews, water quality standards staff develop limits for "conventional" and (where applicable) "toxic" pollutants, and they conduct "nondegradation" reviews for permit applications with new or expanded discharges. MPCA permit staff told us that delays in determination of permit effluent limits by the agency's water quality standards and phosphorus staff have adversely affected MPCA's backlog of expired permits.

25 For instance, new methods of testing can now identify extremely small amounts of mercury in water, and environmental groups have increasingly requested that permits require mercury reductions or water treatment programs. Also, the MPCA Board adopted phosphorus policies in 1999, but interested parties have sometimes challenged these policies or the way they have been interpreted for permitting purposes.

26 This includes MPCA staff costs, as well as Attorney General staff costs billed to MPCA. MPCA estimates that the staff costs for a contested case hearing request approved by the MPCA Board would range from $84,000 to $202,000.

27 For additional details on MPCA's 1998 reorganization and 2001 "course correction," see Chapter 1.

In 2001, a majority of Minnesota's "major" point source facilities operated under the terms of expired permits.

In 1998, MPCA's reorganization and its transfer of staff to feedlot-related activities resulted in fewer permit approvals.

achieving Blue Ribbon Task Force goals.[28] In addition, staff also told us that the reorganization slowed management decision making on key permit issues—because time spent by managers on the reorganization process took away time from their other duties, or because it was sometimes unclear after the reorganization which supervisor or manager was responsible for a particular decision. In addition, the reorganization resulted in the assignment of some permit writers' time to activities not directly related to permitting—for instance, reviewing water quality standards and applications for sanitary sewer districts. MPCA's total number of permit issuances, reissuances, modifications, and terminations was about 40 percent lower in fiscal year 1999 than in the years that preceded and followed it, and the reorganization was one of the reasons.

Fourth, another reason for the decline in MPCA's fiscal year 1999 permit actions was the transfer of water quality point source staff to animal feedlot regulation. MPCA decided that feedlot regulation needed additional resources to address issues raised by EPA, the Legislature, and various interest groups. As an interim measure, MPCA internally reallocated $578,000 in August 1998 from the point source program to the feedlot program. About 18 percent of MPCA's point source staff were reassigned to feedlots for about a year—to write rules, issue permits, and work on compliance and enforcement issues. Some Blue Ribbon report recommendations were delayed or curtailed to accommodate the reallocation.

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28 Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report* (St. Paul, November 1996), 56-57. The report ranked this as the 25th most important of 52 recommended changes in MPCA processes.

Fifth, the initial implementation in 1998 of the agency's new permit information system (called "DELTA") probably added time to the permitting process. MPCA administrators believe that DELTA will contribute to a more efficient permitting process in the future, but various staff expressed concern about problems that have arisen so far. A report last year said the DELTA system's water quality components needed 300 "fixes."[29] PCA staff told us they have had to do time-consuming "work-arounds" when writing permits for industrial facilities. Some staff said that they have avoided using DELTA because of problems such as these, so they have had to be "retrained" to use the system on each occasion they have used it for permit writing.[30]

Sixth, recent budget reductions in MPCA's point source permitting program may have played a role in the agency's permit backlog. After the 1995 Blue Ribbon Task Force report (and a follow-up report by a consultant in 1996), the Legislature appropriated reduced funding and MPCA implemented 5 percent reductions in its point source program for three straight years (fiscal years 1999-2001). This reflected the task force's conclusion that MPCA had "significant opportunities for cost reduction in the program while maintaining and even enhancing the level of service."[31] However, MPCA staff told us that the reductions occurred before the agency had a chance to fully implement the task force's recommended efficiency measures, contrary to the recommendation of the 1996 consultant's report.[32] Meanwhile, MPCA water quality fee levels have not increased since 1992, despite several agency proposals to do so, and fee revenues have not kept pace with inflation.[33]

The number of facilities with point source permits increased 4 percent since 1995.

Seventh, there has been some increase in recent years in the number of facilities with MPCA water quality permits. For instance, the total number of facilities with NPDES and SDS permits grew from 1,365 in 1995 to 1,424 in July 2001 (a 4 percent increase).[34] The number of sanitary sewer extensions approved by MPCA grew from 674 in 1995 to 843 in 2000 (a 25 percent increase). In addition, MPCA first started regulating stormwater at construction sites in 1993 (through a general permit covering all such sites), and the number of permits issued grew from 648 in 1995 to 925 in 2000 (43 percent increase). MPCA staff also spent a total of about 1,000 hours working on the initial permits for Minneapolis' and

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29 MPCA Majors Design Team, *Majors Design Team Final Report* (St. Paul, March 1, 2001), 13. The report said that MPCA information services staff were "establishing a process to systematically address" these problems (p. 16). MPCA officials told us that the problems identified in the report represented a small portion of the 2,000 "fixes" implemented since DELTA started. Even minor language changes must be addressed in DELTA by computer programmers.

30 *Ibid*., 51.

31 *Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs*, 3.

32 In response to the Blue Ribbon recommendations, a consultant said in 1996 that it would be reasonable for MPCA to reduce staffing levels "after FY 1999." The consultant's report said that, "in our opinion, the Agency should be mindful of attempting to reduce staffing before process changes have been properly implemented." See Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report*, 9.

33 See Office of the Legislative Auditor, *Minnesota Pollution Control Agency Funding* (St. Paul, January 2002) for more discussion on water quality fee revenues.

34 MPCA's number of "general" water quality permits increased from 251 to 372 during this period. General permits should be easier to issue than individual permits, so some of the workload increase caused by an increase in the total number of permitted facilities might have been offset by the increased use of general permits.

St. Paul's municipal stormwater systems in 1999 and 2000, in response to federal requirements.[35]

These factors have likely contributed to growth in the permit backlog since the Blue Ribbon Task Force, and MPCA officials said that some other factors will add to the agency's permit workload in coming years. For instance, under the latest phase of federal stormwater regulations, MPCA is supposed to issue initial municipal stormwater permits to about 130 counties, cities, and townships by December 2002. In addition, MPCA staff have done "nondegradation reviews" for about 5 percent of permits issued in the past five years, but officials believe this percentage will increase. In the future, they said, nondegradation reviews will usually be completed for facilities that are proposing to discharge larger volumes of wastewater—primarily because EPA recently said that fish consumption advisories should be considered evidence of substandard water quality, and many of Minnesota's waters have such advisories.[36] According to MPCA, a typical non-degradation review takes about 60 to 90 hours of staff time to draft.[37]

CHANGES IN THE PERMIT ISSUANCE PROCESS

In addition to establishing a goal for reduction in MPCA's water quality permit backlog, the 1995 Blue Ribbon Task Force also recommended "process changes" that could help the agency reach the backlog goal. We found that:

- **MPCA has implemented several changes in the permitting process recommended by the Blue Ribbon Task Force, but MPCA staff recently identified a need for further improvements.**

For instance, MPCA has:

- Established a "low-risk" permit team in 1997, designed to more efficiently issue the large number of permits that are fairly routine and pose limited environmental risk. (This team existed for less than a year before staff were reassigned to feedlot regulation.)

- Assigned a staff person, starting in 1998, to centrally review whether permit applications are complete before they are forwarded to permit staff.[38]

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35 MPCA staff also estimated that the number of permit "modifications" (that is, changes to permits prior to their expiration dates) increased 10 to 20 percent in the past five years, although they did not have reliable data to document this. Some modifications require little staff time, while others may require time comparable to a permit reissuance.

36 Nondegradation reviews must be completed in many cases in which a facility proposes to increase its discharge and the receiving water exceeds a water quality standard.

37 MPCA said that a nondegradation review for phosphorus or metals takes an average of 40 hours, and mercury and nonpoint source reviews can each add another 25 hours to the process.

38 In 1996, a consultant who reviewed a sample of expired permits reported that 8 percent of the expired permits were cases in which the permittee needed to submit additional data before the application could be reviewed by MPCA (Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report,* 23).

Several recommendations of a Blue Ribbon Task Force have been implemented.

- Developed "industry sector" teams in 1998. These teams work with particular industries (such as paper and mining) on permit-related issues.

- Reviewed in 1998 the efficiency and effectiveness of engineering, hydrological, and soil science activities in the water quality point source program, and developed or updated technical review checklists for consultants working on water-related projects.[39]

- Established a customer service center in 1999 so that routine, permit-related questions can be answered by staff other than the staff who are writing the permits.

- Developed a "general" permit for stabilization ponds in 2000, resulting in the conversion of 48 individual permits to permits that can be reissued routinely under the terms of the general permit.

- Revised permit application forms in 2000 and placed application instructions and forms on the agency's website.

- Sought and received legislative authorization in 2001 to implement an "expedited" permit issuance process for selected types of permits—for permittees who wish to pay a special fee to enable MPCA to issue permits faster than they would normally be issued.[40]

The Blue Ribbon Task Force recommended that MPCA pursue with federal officials the option of issuing permits for ten years, rather than five. The task force said that issuing permits on a ten-year cycle would require a change in federal law or authorization from EPA. The Governor's list of federal priorities for 2001 included a recommendation that Congress "extend NPDES permit time frames from five years and reissue only when environmental standards or needs dictate."[41] There has been discussion at the national level about issuing permits for periods longer than five years, but EPA officials told us that no states have been authorized to do so, and no such authorization is imminent.

MPCA has taken some other permitting-related actions that were not specifically recommended by the Blue Ribbon Task Force. For instance, in 1998 MPCA developed a risk-based process for evaluating leaking wastewater stabilization ponds, partly to improve the consistency and timeliness of MPCA's permits for these facilities.[42] In 2001, the commissioner assigned an assistant commissioner to oversee MPCA's water program, in response to public concerns about water quality permitting, compliance monitoring, and enforcement.

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39 MPCA, *Final Report of the Technical Functions Team* (St. Paul, November 1998).

40 *Minnesota Laws* (2001), ch. 116. The permitting work is expedited through the use of overtime by MPCA staff or consultants retained by MPCA.

41 Office of Governor Jesse Ventura, *Minnesota's Federal Priorities, 2001: Minnesota Pollution Control Agency* (St. Paul, February 2001).

42 MPCA Leaking Pond Workgroup, *An Assessment of the Status of Leaking Stabilization Ponds in the State of Minnesota* (St. Paul, February 1998).

Recently, MPCA officials established two teams of staff to identify ways to redesign the agency's regulatory processes. In early 2001, these teams recommended various ways to improve the permit process. For example, the team that examined major NPDES facilities recommended that MPCA:

- Hold meetings (called "forums") of MPCA staff to expedite agency decisions about permit-related issues specific to a particular case. Such meetings might allow MPCA to get quicker agreement among its staff about ways to proceed with contentious issues, and they might also help to ensure that staff positions are consistent from one permit to the next. Presently, MPCA uses a forum process to determine whether and how to apply administrative penalties in response to environmental violations.

- Implement a 120-day time limit from the date the permit is assigned to a permit writer to the date the permit is placed on public notice or brought to a permit forum. During this 120-day period, there would also be a 60-day limit on development of water quality standards for a permit.

- Establish agency-wide criteria for assigning priorities to permit applications. Presently, permit applications are recorded at a central MPCA location, but they are not assigned priorities in a clear or consistent way.[43]

Negotiating phosphorus and mercury policies on a case-by-case basis has prolonged the permitting process.

The redesign team said that these changes could be implemented within six months. As of late 2001, MPCA had initiated a pilot of the point source permit forums, while the establishment of permit-related time limits and priorities was still in the planning stages. In addition, the team highlighted the need for MPCA to determine over a 12-month period whether new state rules would address certain issues that now prolong the permit process.[44] Presently, MPCA addresses many issues related to phosphorus and mercury regulation on a case-by-case basis, within the confines of general agency policy. But numerous permittees expressed concern to us about the consistency of MPCA's decisions on these issues. The MPCA service redesign team recently said that there is divided opinion within the agency about whether such issues should be addressed through rule making:

> For water quality permits, permitting staff and supervisors expressed strong concerns about using permits to implement new policy (such as mercury and phosphorus), rather than adopting rules or using another tool. From their perspective, dealing with these issues through permits has resulted in increased time negotiating case-by-case, delayed environmental results, and concerns about implementing unpromulgated rules. From [the] water quality rule-writers' perspectives, dealing with such issues through rule will lead to a loss in flexibility and excessive time spent adopting rules.[45]

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43 Majors Design Team Final Report, 45-50.

44 Ibid., 55.

45 Ibid.

MPCA staff have had ongoing discussions with the MPCA Board about how to address phosphorus and mercury issues in the permitting process. We offer no opinion about whether phosphorus and mercury issues should be addressed through rule changes, "permit forums," revised board policies, statutory changes, or other approaches. However, after careful consideration of the options, MPCA should determine which alternative will most cost-effectively result in more consistent, timely application of phosphorus and mercury policies by the agency. Without progress on this difficult issue in the near future, it is likely that permit delays will continue.

The 2001 Legislature provided MPCA with additional staff to issue permits.

MPCA should prepare a progress report for the 2003 Legislature.

In our view, the Legislature should closely monitor MPCA's progress toward improving the permitting process and reducing the backlog. Decisions by the 2001 Legislature provided MPCA with funding for nine additional staff to address water quality point source and stormwater issues, including permit backlogs. MPCA recently estimated that the percentage of major facilities with expired permits would decline to 38 percent by December 2002 and 18 percent by December 2003, but MPCA has often failed to meet previous goals for backlog reduction.[46]

RECOMMENDATION

The Legislature should require MPCA to prepare a progress report prior to the 2003 legislative session that addresses (1) the status of the agency's permit backlog, and (2) implementation of improvements in the permitting process, including (but not limited to) permit forums, time limits, permit priority-setting, and any changes needed in the way that phosphorus and mercury issues are addressed in permits.

46 MPCA, *NPDES Permit Issuance/Expiration Forecasts, Projections for the State of Minnesota* (St. Paul, June 30, 2001).

MPCA should consider additional options for improving the permitting process.

The recent MPCA reports provide some good ideas for improving the permit process, but we think other ideas should be considered, too. First, MPCA managers and permit writers told us that there are probably opportunities for the agency to convert more individual permits to "general" permits—for certain categories of permittees engaged in similar activities. Second, some permittees suggested to us that MPCA develop "boilerplate" permit language that could be used in multiple permits (supplemented, where appropriate, by provisions that are specific to the permittee). Recently, an MPCA team recommended implementation of such a strategy for certain air quality permits, and it may be applicable to water quality permits, too.[47] Third, MPCA may need more systematic ways to help permit writers understand and consistently apply complex federal and state regulations. One way to achieve this would be through development of a permit manual for water quality staff, as a consultant recommended to MPCA in 1996. Fourth, MPCA permit staff told us that the short-lived implementation of a "low-risk" permit team was a useful effort that should be reinstated, if possible. Although some MPCA officials question whether staff should be dedicated to permits that are considered to be "low risk" from an environmental perspective, reinstatement of a more efficient process to handle low-risk permits would help to demonstrate the agency's commitment to backlog reduction. A 1996 consultant's report estimated that 59 percent of MPCA's permit workload at that time could be considered "low risk."[48]

Fifth, MPCA may need to determine an agency-wide strategy for addressing instances in which permittee compliance is an impediment to efficient permitting. MPCA and permittee staff told us about cases in which permit issuance was delayed by (1) failure of local agencies to make timely decisions, (2) ongoing, unresolved compliance problems that needed resolution before a permit could be reissued, and (3) deficiencies with information provided by permittees' consultants. Sixth, Public Facilities Authority officials told us that MPCA permit staff could probably spend less time reviewing applications for costly sewer projects that are unlikely to be eligible for the Authority's limited supply of public grant funding. Seventh, MPCA staff told us that many permits are delayed while awaiting phosphorus reviews and effluent standards reviews. MPCA recently made some staffing changes to improve the effluent review process, and the agency should monitor whether these changes were sufficient.[49]

We did not evaluate the feasibility of each of these process changes, but we think they are generally consistent with recommendations made in previous MPCA and Blue Ribbon Task Force reports and should be explored as MPCA implements other changes in the permit process. Options such as development of general permits and a permit writers' manual would require an investment of staff time

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47 *Majors Design Team Final Report*, 57. The DELTA permit information system uses boilerplate permit language.

48 Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report*, 5.

49 From 1998 to 2001, MPCA assigned one water quality standards staff person to each of MPCA's three regions. The workloads of these staff were not equal, so this function was centralized in late 2001.

"up front."[50] Options such as establishment of a "low risk" permit team might require reassignment of staff.

Minnesota's contested case hearing process provides useful opportunities for public input, but it can also be time-consuming.

If the 2003 Legislature thinks that progress toward improving permit timeliness has been unsatisfactory, it could consider options such as (1) putting permit issuance time limits into law, (2) forgiving portions of annual fees in cases where permittees have complied with regulations but permits are well past the expiration date, or (3) authorizing additional resources for MPCA's water quality point source program.[51] In addition, the Legislature could consider whether to change the process for requesting contested case hearings. Minnesota's permitting process differs from most states in its potential involvement of a citizen board prior to permit issuance. This structure has a long history in Minnesota and provides a unique opportunity for public input into potentially controversial agency decisions. On the other hand, state law makes it possible for a single request for a contested case hearing to trigger time-consuming staff activities and sometimes prolong the permitting process. As noted earlier, MPCA has recently received about five such requests per year regarding water quality permits, and it estimates that each request costs the agency $31,000 to $71,000. We did not comprehensively review the contested case hearing process and offer no recommendations for changes.

STAFF PRODUCTIVITY

Earlier in this chapter, we discussed factors that may explain recent growth in the water quality permit backlog. Besides the factors discussed, the backlog could have been positively or negatively affected by changes in staff productivity—as measured, for example, by permits issued per FTE. The 1995 Blue Ribbon Task Force said that MPCA "has a relatively low ratio of permits issued per FTE in comparison to other states. This has resulted in delays in permit issuance and a steady increase in permit backlogs. We feel [that] efficiencies can be achieved in this area without compromising the quality of the final permit."[52] The task force determined that MPCA issued 6.7 permits per permit-related FTE in 1994, and it recommended that the agency increase its output to 13.6 permits per FTE.[53]

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50 Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report*, 56-57, estimated that development of the manual would require 600 hours of staff time.

51 There is some precedent for time limits on the permit process. State law requires MPCA to make decisions on feedlot permit applications within 60 days, except in cases requiring public notices or environmental reviews. The law also gives MPCA 180 days to approve, disapprove, or delay decisions on solid waste permits, with reasons for delays stated in writing. The Legislature may wish to consider ways to discourage permit applicants from intentionally delaying the permitting process before it considers adopting time limits for action on permits or forgiving fees for facilities with expired permits.

52 *Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs*, 28.

53 The task force may have understated the productivity of MPCA's permit staff. For purposes of estimating staffing levels, the task force defined permitting as including "application review, technical review, establishment of effluent limits and conditions, determination of pretreatment requirements, preparation of permit document and fact sheet, public notice, and final issuance." The task force's productivity estimates assumed that MPCA had 35 FTE devoted to permit issuance, which apparently included 12 supervisors, support staff, and data management staff. The task force's definition of "permitting" did not specifically mention management or support staff, and it is unclear whether these staff were included in the task force's estimates of other states' staffing levels.

MPCA tracked the productivity of its permit staff for a two-year period from 1997 to 1999, but:

- **MPCA has not maintained information that can be used to accurately and consistently assess trends in the productivity of its permit staff over the past seven years.**

It appears that the goal for improved productivity set by a 1995 task force was not met.

MPCA's present method of counting the number of staff FTE assigned to permitting is different from the method used to count FTE in the 1995 report. We met with MPCA officials to try to assess changes in permit-related staffing levels between 1995 and later years, but officials said that agency records do not allow for a consistent, accurate determination of staffing changes since 1995.[54] Earlier in this chapter, we noted that MPCA's average annual number of permits issued, reissued, and modified has declined since the Blue Ribbon Task Force report, so MPCA's permit actions *per FTE* could only have increased if the number of permit staff has decreased since that report was issued. Although MPCA's number of permit staff has probably declined since the 1995 Blue Ribbon report, it is doubtful that any improvements in productivity have approached the goals set by the Blue Ribbon Task Force.[55]

Given the prominence of the Blue Ribbon Task Force's recommendation regarding improvements in permit staff productivity, we think it is surprising that MPCA has not tracked permits issued per FTE more regularly. In our view, MPCA should develop a measure of permits issued per FTE that can be consistently tracked and reported until the permit backlog has been reduced to an acceptable level.

RECOMMENDATION

MPCA should develop a consistent way to track the productivity of its permit-related staff.

In January 2002, MPCA implemented a new agency-wide system for tracking the time spent by staff on various activities, such as water quality point source permitting. MPCA managers said that this system will provide more detailed FTE information than has been available previously. Such information could help MPCA managers track staff productivity on a regular basis.

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54 During the two-year period that MPCA tracked the permits issued per FTE, it based this calculation on the number of permit-related FTE at the time of the 1995 Blue Ribbon report, not on the actual number of permit staff during that two-year period.

55 Because the annual number of permit actions declined by 14 percent from 1994 to 2001, a 57 percent reduction in MPCA permit staff would have been required during this period for the agency to have met the Blue Ribbon Task Force goal of a 103 percent increase in permits issued per FTE. No such staff reduction has occurred since 1994. If we assume that MPCA had 28 permit staff in 2001 to issue, reissue, or modify 204 permits, then the resulting number of permits per FTE (7.3) is somewhat higher than the number at the time of the Blue Ribbon report (6.7).

As an alternative measure of MPCA staff productivity, we examined a water quality resource needs model developed by EPA in 1999.[56] The model can be used by state environmental protection agencies to estimate their staffing needs. We focused exclusively on the permit issuance portion of the EPA resource model. We applied Minnesota-specific workload information to the model's estimates of "average" time required for various permit-related tasks. The model suggests that Minnesota needs about 24 FTE permit staff (not including program managers and staff working on rule development and data management) to keep pace with renewal of NPDES water quality permits every five years. For 2001, we determined that MPCA had slightly more than this number of FTE devoted to the types of permit-related activities in the EPA model. MPCA officials correctly noted that the EPA model incorporates time for permit appeals, but it does not specifically account for the type of contested case hearing process used in Minnesota. This process, plus MPCA's general approach of trying to get consensus among interested parties before issuing draft permits, may add time to the permit process beyond what is required in other states. However, there is no clear way to determine whether MPCA's approach results in "better" permits.

56 See http://www.asiwpca.org/programs/docs/WQModel18.xlt. EPA contracted with Cadmus Group, Inc. for this model.

3 Compliance and Enforcement

SUMMARY

The 1995 Blue Ribbon Task Force on Water Quality Funding set goals for increases in the Minnesota Pollution Control Agency's (MPCA) number of inspections and the productivity of MPCA inspection staff, but these goals have not been met. In fact, MPCA has inspected fewer facilities with water quality point source permits in recent years than it did at the time of the task force report. Meanwhile, there appears to be room for improvement in permittees' compliance with discharge and reporting requirements, although compliance rates for Minnesota's "major" facilities have been near or above national rates. MPCA has a variety of formal enforcement options that it can use to respond to serious violations. For point source facilities, MPCA used these options an average of 40 times per year in the past decade; they were used more frequently in the late 1980s and early 1990s.

As described in Chapter 2, Minnesota facilities that discharge wastewater are required to obtain water quality permits from MPCA. Once the permits have been issued, MPCA monitors the compliance of these facilities with permit requirements. In its review of MPCA's water quality point source program, the 1995 Blue Ribbon Task Force on Water Quality Funding concluded that "Minnesota's compliance and enforcement activities are… somewhat higher in cost when compared with the other states surveyed, yet lower in service levels provided."[1] This chapter provides an overview of recent trends in MPCA's point source compliance monitoring and enforcement activities. We asked:

- **Does MPCA conduct enough inspections of facilities with point source permits? Has the inspection rate changed since 1995?**

- **To what extent do facilities comply with the conditions of their permits? How often, and with what enforcement tools, does MPCA respond to instances of noncompliance?**

FACILITY INSPECTIONS

At the outset of our study, legislators and others raised questions about how well MPCA is performing its most basic functions, such as issuing permits and

1 *Report of the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs: Findings and Recommendations* (St. Paul, December 1995), 30.

monitoring compliance with those permits. Facility inspections are one of the means by which MPCA determines whether facilities are complying with the conditions of their permits. MPCA relies considerably on reports submitted by facilities to determine compliance, but field inspections provide an opportunity for MPCA staff to review compliance and facility operation on site. Inspections also enable MPCA staff to maintain in-person contacts with wastewater facility operators and provide technical assistance, as needed.

A 1995 Blue Ribbon Task Force recommended that MPCA conduct more inspections.

In 1995, the Blue Ribbon Task Force on Water Quality Funding concluded that MPCA did fewer inspections than its counterpart agencies in other states.[2] The task force recommended that MPCA increase its number of inspections through productivity improvements. In 1996, teams of staff from MPCA and the Blue Ribbon Task Force consulting firm recommended focusing more of the agency's inspection activities on "higher risk facilities." They also recommended continued actions to improve the efficiency of MPCA's compliance staff.[3]

We found various benchmarks for evaluating the number of inspections that MPCA conducts. Federal regulations say that states "shall have procedures and ability for… inspecting all major [National Pollutant Discharge Elimination System (NPDES)] dischargers at least annually."[4] But the U.S. Environmental Protection Agency (EPA) periodically negotiates agreements with states regarding levels of expected performance, and these agreements have traditionally not called for annual inspection of all major facilities. MPCA's agreement with EPA for fiscal years 2000 and 2001 called for inspections over a two-year period covering (1) 100 percent of major NPDES facilities, or (2) 70 percent of major NPDES facilities, plus one "regular" (or non-major) NPDES facility for each of the remaining major facilities.[5] MPCA staff think that this approach is consistent with the risk-based approach to inspections adopted by the agency several years ago. Another benchmark is the actual national rate of facility inspection, and EPA data indicate that 70 percent of major NPDES facilities in the U.S. were inspected in fiscal year 2000.[6] In addition, the 1995 Blue Ribbon Task Force on Water Quality Funding set a goal of annually inspecting 39 percent of *all* permitted facilities (up from the 32 percent that the task force said were being inspected at that time). Subsequently, staff from MPCA and the Blue Ribbon Task Force consultant recommended measuring the percentage of high risk facilities inspected, rather than the percentage of all facilities inspected. We found that:

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2 Specifically, the task force focused on inspections conducted per FTE and percentage of facilities inspected.

3 Arthur Andersen, *Minnesota Pollution Control Agency Point-Source Improvement Initiative: Phase II Final Report* (St. Paul, November 1996), 7-8.

4 *40 CFR sec. 123.26 (2001).*

5 MPCA and U.S. EPA, *Environmental Performance Partnership Agreement*, July 1, 1999 to June 30, 2001. "Major" facilities include municipal facilities designed to discharge over a million gallons of water per day and selected industrial facilities (jointly determined by EPA and the states).

6 U.S. EPA, Office of Enforcement and Compliance Assurance, program status report provided to Dan Cox, EPA Office of Inspector General (February 2001).

- **MPCA has inspected nearly enough facilities to meet EPA expectations, but it has not come close to meeting the original inspection goals set forth by the 1995 Blue Ribbon Task Force. In addition, MPCA has not measured the percentage of "high risk" facilities it has inspected.**

MPCA records indicate that the agency inspected 68 percent of Minnesota's major NPDES facilities over the two-year period of the most recent EPA-MPCA performance agreement (fiscal years 2000 and 2001). This was just below the minimum objective (70 percent) established in the agreement. During this period, MPCA also inspected a total of 279 regular NPDES facilities, which was easily sufficient to meet the balance of EPA's inspection objective.

In fiscal year 2001, MPCA inspected 12 percent of the state's point source facilities.

On the other hand, we found that MPCA's percentage of major NPDES facilities inspected annually (50 percent in fiscal year 2000 and 31 percent in fiscal year 2001) was below the 70 percent annual inspection rate for the nation as a whole.[7] Also, MPCA's inspection rates for major facilities seem to contrast with federal requirements that states have the "procedures and ability" to inspect all major NPDES facilities annually. MPCA officials told us that they have sufficient *resources* to inspect all major facilities annually, but they have substituted inspections of non-major facilities for some major ones—which they think is consistent with a risk-based inspection strategy.[8]

MPCA's inspection rate has not met the original Blue Ribbon Task Force goal of inspecting 39 percent of *all* facilities annually. In Chapter 2, we noted that MPCA regulates a total of more than 1,400 facilities with point source permits—including NPDES major facilities, NPDES regular facilities, facilities with "state-only" permits, and facilities with "general" permits. We determined that MPCA inspected 17 percent of *all* of these facilities in fiscal year 2000 and 12 percent in fiscal year 2001, which was well short of the original task force goal. In addition,

- **MPCA has conducted fewer water quality inspections in recent years than it did at the time of the 1995 Blue Ribbon Task Force.**

The task force reported that MPCA conducted 437 water quality inspections in fiscal year 1994, and it set goals for increasing MPCA's inspection coverage. Table 3.1 shows the total number of inspections MPCA has conducted since then. In 1995, MPCA exceeded the number of inspections done in 1994, but in no subsequent year did MPCA approach the 437 inspections reported by the Blue Ribbon Task Force for fiscal year 1994. In fact, the agency averaged 271 inspections per year from 1995 to 2001. MPCA often conducts multiple inspections of a given facility in a single year, and we determined that MPCA inspected an average of 210 *different* facilities per fiscal year between 1995 and

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7 Previously, we reported that a total of 68 percent of major facilities were inspected during the period covering fiscal years 2000 and 2001. This was based on an unduplicated count of facilities inspected over this period. In contrast, the percentages presented for individual fiscal years were based on unduplicated counts of facilities inspected in each of these years.

8 MPCA staff said that some major facilities do not pose as significant environmental risks as some of the smaller facilities. MPCA has developed criteria for determining higher risk facilities that should receive priority for inspections.

Since the mid-1990s, the number of inspections by MPCA has declined.

Table 3.1: Water Quality Facility Inspections by MPCA, FY 1995-2001

Fiscal Year	Compliance Evaluations (Non-sampling)	Compliance Evaluations (Sampling)	Reconnaissance Inspections	Other Inspections	Total
1995	230	11	238	7	486
1996	145	0	212	1	358
1997	116	0	116	10	242
1998	100	1	63	10	174
1999	131	8	31	7	177
2000	212	6	32	9	259
2001	162	4	25	12	202
1995-2001 Annual Average	157	4	102	8	271

NOTE: Includes inspections of facilities with NPDES, state disposal system, and general permits—except for inspections done at the time of permit terminations. Does not include inspections of stormwater facilities or feedlots with non-NPDES permits.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

2001. MPCA managers estimated that the agency had about 1.5 fewer inspection FTE in 2000 than it had at the time of the Blue Ribbon Task Force.[9]

We also compared MPCA's number of inspections over a recent five-year period and a similar period from a decade earlier.[10] From 1986-90 to 1996-2000, MPCA's total number of inspections increased by about 14 percent, while the number of facilities with permits increased by about 29 percent.[11] From 1986-90 to 1996-2000, the number of inspections of major NPDES facilities decreased (from 447 to 266), and the number of inspections of other facilities increased (from 520 to 835).

Table 3.1 also shows the types of inspections conducted by MPCA in recent years. "Reconnaissance inspections" are the least thorough type of inspection, usually focusing on a narrow set of issues. In contrast, "compliance evaluations" examine facility compliance more comprehensively, and they may or may not include sampling of water quality. MPCA records indicate that the number of reconnaissance inspections has declined dramatically, from 238 in fiscal year 1995 to 25 in fiscal year 2001. Over the past seven fiscal years, the annual number of compliance evaluations (with or without sampling) fluctuated between 101 and 241. Fewer than 2 percent of MPCA's inspections since fiscal year 1995 have involved water quality sampling, and the total number of sampling inspections in the 1996-2000 period (19) was less than the total number done during a previous five-year period (52 from 1986-90). MPCA staff told us that they would like to do additional sampling, but they doubted that it would uncover

9 MPCA estimated that there were 10 FTE point source inspectors in 1995, compared with 8.5 in 2000 and 11 at the end of 2001.

10 Data for the earlier five-year period were reported in Office of the Legislative Auditor, *Pollution Control Agency* (St. Paul, January 1991), 78.

11 The total number of facilities with NPDES or state disposal system permits increased from about 1,100 in 1990 to 1,400 in 2000.

many new instances of noncompliance and said that it can be expensive.[12] MPCA requires that certified laboratories analyze wastewater samples collected by facilities, and MPCA's confidence in these analyses has been a factor in the agency's decision not to do more sampling of its own.

MPCA inspects a larger proportion of municipal facilities than industrial facilities.

We also compared inspection rates for industrial and municipal facilities. During the 1996-2000 period, about 69 percent of Minnesota's municipal facilities were inspected at least one time, compared with 13 percent of industrial facilities. MPCA staff told us that municipal facilities need more inspections because the operators of these facilities often have many other city duties that can distract them from their wastewater responsibilities. In contrast, MPCA staff said, industrial facilities tend to devote more resources to the operation of their facilities.

Facility inspections are one means by which MPCA determines whether facilities are complying with permits. Inspections also enable MPCA staff to directly observe facility operations.

MPCA does not have information documenting the extent to which its inspections are "announced"—that is, prearranged with facilities prior to the inspection. Some pollution control experts believe that it is important for inspectors to see facility operations without giving the operators a chance to prepare for the inspection.[13] On the other hand, inspectors who travel to a facility want to be sure that the appropriate facility staff will be available at the time of the inspection. MPCA supervisors told us that inspection staff vary considerably in the extent to which they make prior arrangements for inspections, but they said that inspectors outside the Twin Cities probably rely less on unannounced inspections than do their Twin Cities counterparts.

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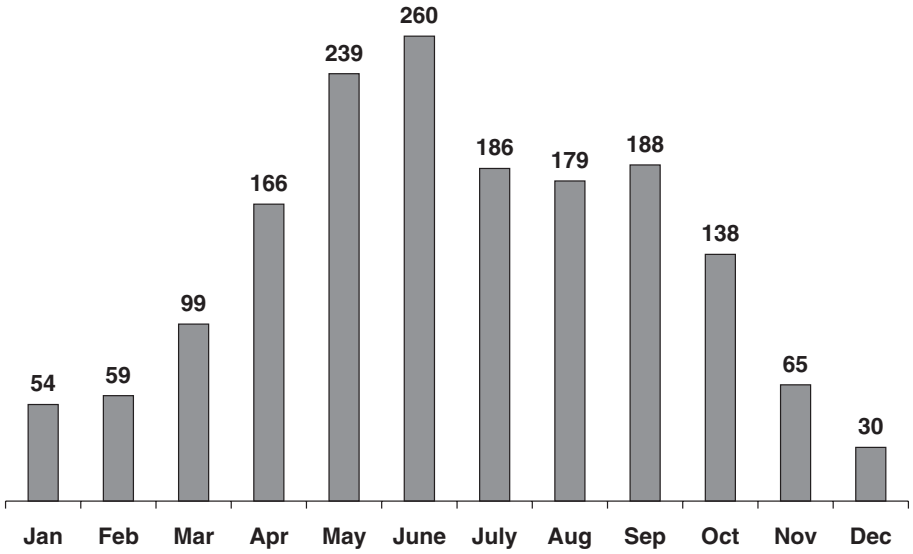
12 Staff said that it would be useful to compare the sampling results of MPCA with those obtained by permittees.

13 For instance, the EPA Inspector General recently said that inspections should be unannounced—see *State Enforcement of Clean Water Act Dischargers Can Be More Effective* (Washington, D.C., August 2001), 27.

We observed that there is considerable seasonal variation in the number of inspections done by MPCA, as shown in Figure 3.1. From fiscal years 1995-2001, MPCA conducted about 73 percent of inspections during the months of April through September. MPCA supervisors told us that some facilities with permits (about 200 to 300) cannot be inspected in cold weather, but most could be inspected any time. MPCA supervisors said that the predominance of inspections during warmer months reflected staff preferences for when to conduct inspections, as well as supervisor concerns about staff safety when traveling during the winter months. Supervisors said that inspection staff spend more of their time during the colder months doing inspection write-ups, enforcement-related activities, and follow-up contacts related to previous inspections or enforcement actions. Without further review of how inspection staff spend their time during the colder months, it is difficult to conclude whether inspectors could do more cold weather inspections while maintaining the number of inspections done during the summer months. However, as recommended later in this chapter, we think that MPCA should consider options for increasing its number of inspections per FTE. Given MPCA's declining inspection coverage—in contrast to the Blue Ribbon report's goal of conducting more inspections—MPCA officials may wish to consider whether staff could increase their number of cold weather inspections without eliminating other important duties.

Figure 3.1: Total MPCA Water Quality Inspections, by Month, FY 1995-2001



SOURCE: Office of the Legislative Auditor analysis of MPCA data.

There might be opportunities for MPCA to increase the number of inspections during colder months.

More generally, we think that MPCA should regularly measure the productivity of its inspection staff, as recommended later in this chapter. The Blue Ribbon Task Force set a goal of increasing MPCA's number of inspections per FTE from 11.5 to 24.2, without sacrificing inspection quality. It is debatable whether this task

force selected the best measure of inspection staff productivity.[14] Nevertheless, MPCA has not regularly tracked inspections per FTE using an alternative measure. Furthermore, the recent decline in MPCA inspections suggests that the task force's staff productivity goal has not been met.[15]

PERMIT VIOLATIONS AND MPCA RESPONSES

Facilities are required to report information on their wastewater discharges to MPCA.

To evaluate whether MPCA is doing enough compliance monitoring (including inspections) requires some consideration of the permit violations that are being detected. We examined the extent to which wastewater discharges have exceeded the limits in facility permits. We also examined how the extent of "significant noncompliance" (as defined by EPA) in Minnesota facilities compared with those in other states. Finally, we looked at the extent of reporting violations, or cases in which facilities have not submitted all of the information required for compliance monitoring. In general:

- **There appears to be room for improvement in facilities' overall compliance with effluent standards and reporting requirements, although EPA has been generally satisfied with the level of compliance among Minnesota's *major* NPDES facilities.**

EPA primarily monitors compliance rates among Minnesota's 84 major NPDES facilities, not other types of facilities. Furthermore, federal regulations focus on what is defined as "significant noncompliance," not all instances in which permit requirements are violated.[16] According to MPCA, it would not be realistic to design wastewater plants to achieve 100 percent compliance. Table 3.2 shows that Minnesota's percentage of major facilities in significant noncompliance compared favorably with other states in fiscal year 2000, while in prior years it was near the national average.

We examined permittee compliance with the effluent limits in water quality permits for calendar year 2000, using data from MPCA's information systems. Effluent violations occur when a permittee's wastewater discharges exceed one or more of the limits in a facility's permit. Most of MPCA's data on effluent levels

14 The task force determined that MPCA did 11.5 inspections per FTE in 1994 (437 inspections by 38 FTE). But, while MPCA may have had 38 staff working in compliance monitoring and enforcement in 1994, MPCA estimates that its actual number of point source facility inspectors at that time was about 10 FTE. Furthermore, we were unable to confirm whether the FTE estimates obtained by the task force from other states were comparable to the types of FTE included in the MPCA estimate. The task force used estimates of inspections per FTE from other states to help determine a reasonable goal for MPCA's inspection productivity.

15 At the time of the Blue Ribbon report, MPCA had an estimated 10 FTE inspectors and conducted 437 inspections—or an average of 44 inspections per inspector. In fiscal year 2001, MPCA had an estimated 8.5 FTE inspectors and conducted 202 inspections—or an average of 24 inspections per inspector.

16 For instance, facilities that exceed permit limits for "conventional" pollutants by 40 percent in two months during a six-month period are considered to be in significant noncompliance. Facilities that exceed limits for "toxic" pollutants by 20 percent in two of six months are considered to be in significant noncompliance.

About 18 to 31 percent of Minnesota's major facilities have been in "significant noncompliance" in recent years.

Table 3.2: Percentage of Major NPDES Facilities in "Significant Noncompliance," Selected States, FY 1997-2000

	1997	1998	1999	2000
Illinois	16.8%	9.6%	12.9%	17.1%
Indiana	34.3	37.1	31.5	46.1
Michigan	38.7	46.4	34.3	29.3
MINNESOTA	**27.1**	**29.4**	**30.6**	**17.6**
Ohio	38.4	40.5	43.9	34.3
Wisconsin	19.4	18.7	14.2	N/A[a]
All Region 5 states	29.5	30.0	28.4	32.3[a]
U.S.	25.3	27.0	24.9	24.7[a]

NOTE: Percentages for all years were computed using the number of major facilities in 2000. Typically, there are not large changes in a state's number of major facilities from one year to the next. The percentages shown indicate the percentage of facilities in significant noncompliance at some time during the year.

[a]EPA's Wisconsin data for 2000 appeared to be questionable, so we did not report it here. We also excluded Wisconsin's data from the regional and national totals for 2000.

SOURCE: Office of the Legislative Auditor analysis of data from the U.S. Environmental Protection Agency.

are based on self-reports filed by the permittees. The facilities whose compliance we reviewed included NPDES major and regular permittees, facilities with general permits, and facilities with statewide disposal system permits—altogether, about 1,400 facilities. Table 3.3 shows the extent to which these facilities exceeded their effluent limits during 2000. The table shows facilities with any exceedances, not just those deemed to be "significant" for federal reporting purposes. As noted earlier, federal regulations have criteria for determining which NPDES facilities are in significant noncompliance.

As shown, about 41 percent of major facilities, 45 percent of regular facilities, and 16 percent of other facilities exceeded their effluent limits at least once in 2000. We also compared the effluent violation rates of major NPDES permittees for 1990 and 2000, and we found that the percentage of facilities with violations was smaller in 2000 than in 1990.[17]

In addition, we looked at the extent of "reporting violations," or instances in which permittees failed to send MPCA all of the required information on their discharges, as shown in Table 3.4. Most facilities are required to submit reports on a monthly basis, including data on the quantity and content of facility discharges. MPCA's information system has not been designed to handle reports submitted electronically, so facilities must submit paper versions of the discharge reports and MPCA staff then enter the data into a compliance monitoring

17 The 1990 data were reported in Office of the Legislative Auditor, *Pollution Control Agency* (St. Paul, January 1991), 80. The percentage of major industrial facilities in violation was 71 percent in 1990 and 41 percent in 2000. The percentage of major municipal facilities in violation was 49 percent in 1990 and 40 percent in 2000.

Many facilities occasionally violate permit limits, but relatively few are chronic violators.

Table 3.3: Effluent Violations by Minnesota Facilities With Water Quality Permits, 2000

All Facilities	NPDES Major	NPDES Regular	General and State-Only Permits
Total permitted facilities	84	789	551
Facilities with at least one violation	34	357	87
Percentage with at least one violation	40.5%	45.2%	15.8%
Total number of violations	235	1,994	332
Average months in violation per facility[a]	3.4	2.8	2.4
Facilities in violation 3-5 months	6	104	26
Facilities in violation 6 or more months	7	42	4
Industrial Facilities			
Total permitted facilities	27	330	397
Facilities with at least one violation	11	93	48
Percentage with at least one violation	40.7%	28.2%	12.1%
Total number of violations	114	543	215
Average months in violation per facility[a]	4.1	3.0	2.5
Facilities in violation 3-5 months	2	28	19
Facilities in violation 6 or more months	3	13	1
Municipal Facilities			
Total permitted facilities	57	459	154
Facilities with at least one violation	23	264	39
Percentage with at least one violation	40.4%	57.5%	25.3%
Total number of violations	121	1,451	117
Average months in violation per facility[a]	3.1	2.7	2.3
Facilities in violation 3-5 months	4	76	7
Facilities in violation 6 or more months	4	29	3

[a]Facilities with at least one violation.

NOTE: For this table, violations include any exceedances of permit effluent limits. Many of these exceedances would not constitute "significant noncompliance" for federal reporting purposes.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

database.[18] We examined two general categories of reporting violations: (1) instances in which facilities did not submit an *entire monitoring report*, which typically should include information on a variety of pollutants, and (2) instances where a monitoring report was submitted, but it lacked information on *at least one individual pollutant*. We found that:

- **In 2000, water quality permittees did not submit 6 percent of the monitoring reports they were required to submit to MPCA. In cases where reports *were* submitted, permittees failed to report 7 percent of the required information on individual pollutants limited by the permits.**

18 The Blue Ribbon Task Force recommended that MPCA "increase opportunities for electronic transfer of information" (p. 29). If MPCA's information system allowed for electronic transmittals, it could be programmed to prohibit submission of incomplete monitoring reports, according to staff; however, this has not been a high priority.

The failure of facilities to submit required reports sometimes hinders MPCA's compliance monitoring efforts.

Table 3.4: Reporting Violations by Minnesota Facilities With Water Quality Permits, 2000

All Facilities	NPDES Major	NPDES Regular	General and State-Only Permits
Total permitted facilities	84	789	551
Facilities with at least one violation	41	429	194
Percentage with at least one violation	48.8%	54.4%	35.2%
Instances in which discharge *concentration* information was not submitted	669	4,430	1,760
Instances in which discharge *quantity* information was not submitted	103	1,394	288
Instances in which entire discharge monitoring report was not submitted	47	1,205	781
Industrial Facilities			
Total permitted facilities	27	330	397
Facilities with at least one violation	10	123	101
Percentage with at least one violation	37.0%	37.3%	25.4%
Instances in which discharge *concentration* information was not submitted	312	1,676	1,061
Instances in which discharge *quantity* information was not submitted	67	245	82
Instances in which entire discharge monitoring report was not submitted	34	654	234
Municipal Facilities			
Total permitted facilities	57	459	154
Facilities with at least one violation	31	306	93
Percentage with at least one violation	54.4%	66.7%	60.4%
Instances in which discharge *concentration* information was not submitted	357	2,754	699
Instances in which discharge *quantity* information was not submitted	36	1,149	206
Instances in which entire discharge monitoring report was not submitted	13	551	547

NOTE: "Reporting violations" occur when facilities do not submit all of the discharge monitoring information required by their permits. This information typically pertains to the concentration or quantity of their discharges. The numbers in the table do not include 479 instances in which information was not submitted and the type of missing information (concentration, quantity) was not specified in MPCA data.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

Reporting violations may be inadvertent and do not necessarily indicate an environmental problem.[19] However, such violations prevent MPCA from determining a facility's compliance with certain permit conditions.

MPCA has a number of options and considerable discretion in choosing how to handle effluent or reporting violations. Many violations are deemed minor and do not result in any formal action by MPCA. Where appropriate, however, MPCA

19 Missing data in the MPCA information system could also indicate MPCA data entry errors, rather than reporting violations.

can issue administrative penalty orders or notices of violation.[20] If a facility does not respond satisfactorily to these enforcement options, MPCA may negotiate a stipulation agreement or consent order with the permittee.[21]

We examined available data for recent years on MPCA's total number of point source enforcement actions in these categories. We learned that MPCA staff have not always entered data on enforcement actions into the agency's main compliance information system (the Permit Compliance System, or PCS). Because data in the PCS system are incomplete, we examined summary data on enforcement actions that MPCA has compiled from various sources (including PCS).[22] These data indicate that:

- **MPCA has averaged about 40 enforcement actions against point source facilities per year since 1992.**

In the past decade, the number of enforcement actions against point source facilities ranged from 22 (1997) to 55 (2001). MPCA does not have reliable summary data on the number of point source enforcement actions prior to 1992, but agency officials think there was a decline in enforcement actions from the late 1980s to the early 1990s. They said that federal deadlines for facility compliance during the 1989 to 1991 period resulted in an unusually large number of notices of violations and consent decrees at that time. They also said that MPCA lost some enforcement staff in the early 1990s when the federal government eliminated funding for a wastewater facility construction program.[23]

Most instances of repeated violations do not result in enforcement actions by MPCA.

To shed further light on enforcement practices, we looked at the extent to which facilities with repeated effluent exceedances during calendar year 2000 were subject to MPCA enforcement actions. Table 3.5 shows that MPCA took enforcement actions against a small percentage of facilities—particularly non-major facilities—that were in violation for at least three months of 2000. MPCA staff use their judgment to determine which cases merit enforcement actions, and they have determined that some instances of repeated exceedances pose little risk or could be addressed through means other than formal enforcement actions. For instance, one major facility exceeded permit standards in three separate months during 2000, but MPCA staff did not take formal action because each exceedance was just slightly over the level allowed by the permit. In another case, MPCA staff asked a major facility to prepare a compliance plan

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20 A "notice of violation" is a formal notification by MPCA that a violation has occurred and that corrective action should be taken. MPCA also has authority to issue "administrative penalty orders"—with monetary penalties up to $10,000 and a schedule of actions the violator must follow to return to compliance.

21 Stipulation agreements are agreements negotiated between MPCA and responsible parties in cases where violations warrant civil penalties larger than $10,000 or that may take more than 30 days to address. Such agreements are called consent orders when they are filed with the courts.

22 In the late 1990s, MPCA produced summary data for the 1992-98 period by supplementing PCS data with reviews of enforcement staff's paper records. MPCA does not have documentation showing the individual actions that comprised the 1992-98 summary data. In late 1998, MPCA started keeping a database of individual enforcement actions that is more complete than PCS, and we examined information from this database.

23 According to MPCA, some staff funded through this program worked in other parts of MPCA's water quality program, including enforcement.

Table 3.5: Facilities With Repeated Effluent Violations That Received Enforcement Actions, 2000

	Percentage of These Facilities That Received Enforcement Actions
Major Facilities	
Municipal facilities in violation 3-5 months (*N*=4)	25%
Municipal facilities in violation 6 or more months (*N*=4)	25
Industrial facilities in violation 3-5 months (*N*=2)	50
Industrial facilities in violation 6 or more months (*N*=3)	100
Other Facilities[a]	
Municipal facilities in violation 3-5 months (*N*=83)	17%
Municipal facilities in violation 6 or more months (*N*=32)	9
Industrial facilities in violation 3-5 months (*N*=47)	11
Industrial facilities in violation 6 or more months (*N*=14)	14

NOTE: "Enforcement actions" include notices of violation, administrative penalty orders, stipulation agreements, and consent orders issued from December 1, 1999 through December 31, 2001. Also includes facilities with stipulation agreements and consent decrees in effect at the time of the violations and those in process at the end of 2001. Our analysis of "effluent violations" included any exceedances of effluent or ambient flow limits in facility permits.

[a]Includes NPDES regular, SDS, and general permits.

SOURCE: Office of the Legislative Auditor analysis of MPCA data.

to address a series of violations, but it did not take a formal enforcement action against the facility.

MPCA staff have acknowledged the need for improvements in compliance monitoring.

In March 2001, an MPCA staff report identified concerns about the agency's compliance monitoring for major facilities, including concerns about the timeliness of enforcement actions. For instance, the report said:

> We don't have an overall compliance strategy for majors. …This lack of a strategy results in a lack of clear direction, lack of priority setting and unfocused leadership.
>
> Our enforcement/compliance roles are unclear, and compliance determination is suffering. …This confusion over roles, stemming in part from a lack of shared understanding of the [organization] design, results in a lack of coordination. Adding to that is the lack of a champion for compliance determination, providing further potential for the function to slip through the cracks.
>
> …Staff have some cases that have lingered open beyond reasonable timeframes. This allows violations to continue and corrective actions to not be completed.[24]

24 MPCA Majors Design Team, *Majors Design Team Final Report* (St. Paul, March 1, 2001), 15, 41. This report was prepared at the direction of MPCA management to identify ways to improve agency permitting, compliance determination, and enforcement practices.

MPCA developed an "enforcement response matrix" in 1992 to clarify the types of agency responses that may be appropriate for various types of compliance problems. But MPCA supervisors told us that this tool is not used consistently by the agency's compliance and enforcement staff, and they said that it needs to be updated.

DISCUSSION

It is difficult to determine the appropriateness of MPCA's compliance and enforcement activities solely by looking at the number of inspections, violations, and enforcement actions that have occurred. In general, however, we think that there may be room for improvement. MPCA has not met the Blue Ribbon Task Force's original goals for increased inspections and improved inspector productivity. MPCA favors a more risk-based inspection approach than outlined by the Blue Ribbon Task Force, but it has not yet developed inspection goals or performance measures consistent with this approach. A substantial number of facilities violate their permits periodically, and MPCA staff have considerable discretion about when to take enforcement actions. Most facilities with repeated violations have not received enforcement actions, although it is difficult to judge whether this is appropriate without considering the circumstances of individual cases.

In addition, we think that MPCA's efforts to track progress toward the Blue Ribbon Task Force's compliance monitoring goals were minimal. The agency has not regularly monitored trends in the number of inspections done or the number of inspections per FTE. Such information, in combination with periodic reviews of trends in water quality compliance levels, might help the agency develop its compliance strategies and evaluate staffing needs. If the Blue Ribbon Task Force goals or performance measures need to be revised, MPCA should consider possible alternatives.

RECOMMENDATIONS

MPCA should (1) consider options for increasing its number of inspections per FTE, (2) update its "enforcement response matrix" and ensure that staff use it consistently, (3) consider options for reducing the number of instances where permittees fail to submit required compliance reports, and (4) periodically monitor trends in permit violations, inspections completed, and inspector productivity.

Summary of Recommendations

- The Legislature should require MPCA to prepare a progress report prior to the 2003 legislative session that addresses (1) the status of the agency's permit backlog, and (2) implementation of improvements in the permitting process, including (but not limited to) permit forums, time limits, permit priority-setting, and any changes needed in the way that phosphorus and mercury issues are addressed in permits (p. 27).

- MPCA should develop a consistent way to track the productivity of its permit-related staff (p. 30).

- MCPA should (1) consider options for increasing its number of inspections per FTE, (2) update its "enforcement response matrix" and ensure that staff use it consistently, (3) consider options for reducing the number of instances where permittees fail to submit required reports, and (4) periodically monitor trends in permit violations, inspections completed, and inspector productivity (p. 46).

MPCA Citizens Board, 2001

APPENDIX A

Karen A. Studders*, MPCA Commissioner
Sidney R. Mason**, General Insurance Agency
Brian J. Bensen, Sherburne County administrator
Jackie G. Duncanson, Farmer
James N. Dunlop, Clean Air Action Alliance
Robert L. Esse, Esse Technologies, Inc.
Daniel D. Foley, M.D., United Hospital
Marcus M. Marsh, Minnesota Association of Farm Mutual Insurance Companies
Chester A. Wilander, Labor representative

*Board chair
**Board vice chair

1995 Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs

APPENDIX B

	Appointed to represent
Mike Robertson, Task Force Chair, Mike Robertson & Associates	
William Bassett, City of Mankato	Coalition of Greater Minnesota Cities
Archie Chelseth, Potlatch Corporation	Minnesota Business Partnership
Rebecca J. Flood, Metropolitan Council	Metropolitan Council Environmental Services
William M. Heaney, Northern States Power Company	Minnesota Environmental Coalition of Labor and Industry
Diane Jensen, Clean Water Action Alliance	Environmental advocates
Sherry Munyon, Minnesota Chamber of Commerce	Minnesota Chamber of Commerce
Jim Nelson, Faribault Foods	Midwest Food Processors Association
Todd Prafke, City of Blooming Prairie	Association of Small Cities
David H. Senjem, City of Rochester	League of Minnesota Cities
Joel C. Smith, American Crystal Sugar Company	Minnesota agribusinesses
John N. Smith, S. B. Foot Tanning Company	Central States Water Environment Association, Minnesota Section
Kurt N. W. Soderberg, Western Lake Superior Sanitary District	Western Lake Superior Sanitary District

Further Reading

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Davies, J. Clarence and Jan Mazurek. *Pollution Control in the United States: Evaluating the System* (Washington, D.C.: Resources for the Future, 1998).

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Minnesota Pollution Control Agency

Office of the Commissioner

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January 14, 2002

Mr. James Nobles
Legislative Auditor
Office of the Legislative Auditor
Centennial Building, First Floor
658 Cedar Street
St. Paul, MN 55155

Dear Mr. Nobles:

The Office of the Legislative Auditor recently completed an evaluation of the Minnesota Pollution Control Agency (MPCA). The review evaluated the funding of MPCA environmental programs, and the water quality point source regulatory program, which are provided in separate reports. This letter addresses the Minnesota Pollution Control Agency Water Quality Permitting and Compliance Monitoring Report (Water Report).

We appreciate the research and study the Office of the Legislative Auditor put into this report. We believe that this report is an accurate analysis of our water quality point source regulatory program. (Point sources are municipal and industrial facilities that discharge wastewater to surface or ground water through pipes and other discrete discharge points.)

The MPCA has been very aware of the backlog in the water quality point source permit program, and the organizational changes we made in November 2001 were designed in part to help us reduce the backlog. We have also pointed out the permit backlog issue to the Legislature in several recent biennial budget discussions as we have sought increased funding for the water quality point source program. At present, the water quality point source fees paid to the MPCA only cover 23% of the actual costs of operating this federally delegated program.

However, the Water Report rightly points out that the MPCA has not fully implemented all of the 1995 and 1996 Blue Ribbon Task Force recommendations such as a time tracking system and risk-based inspection goals. We acknowledge the lack of follow through on some of the 1995 and 1996 recommendations. There are many factors for this including diversion of agency staff and attention in water from point source issues to controversial non-point source issues such as feedlot, Total Maximum Daily Load and stormwater issues.

For example, to address the serious problems pointed out in the Legislative Audit on Feedlots in 1998 (FY99), the MPCA was forced to divert funding from another top priority program (water quality point source regulation) to feedlot regulatory efforts. This was necessary because funds dedicated to lower priority environmental programs could not be legally used instead. About 18% (or 12 full time employees) of our water quality point source program staff were moved to the feedlot regulatory program for a one year period. This contributed to the water quality point source backlog.

It is important to note that the Water Report states that there have also been factors outside of the MPCA's control, which have contributed to the growing permit backlog. This includes factors such as:

- Federal program changes that increase the complexity and number of permitting activities;
- More challenges to draft permits by applicants or interested parties in the public review process;
- The increasing cost of an MPCA employee as discussed in the Funding Report; and
- An increasing number of facilities needing permits resulting from the economic boom of the 1990s, population growth and installing treatment systems at previously unsewered or undersewered communities.

To address those factors within our control, MPCA management has been actively pursuing additional improvements in the water quality point source program since mid-2000, when we began seeking input from employees and external stakeholders on the MPCA priorities for the 2002-2003 biennial budget. In fact, many of the recommendations in the Water Report are a result of MPCA management directed efforts that led to staff candidly identifying problems, and subsequent agency implementation of program improvements including the November 2001 organizational changes. The auditor is correct in asserting that we must improve this program in order to restore and keep the public's trust in the MPCA.

Because improvement of the water quality point source program is a top priority for MPCA, we are taking many actions to address the permit backlog. Chronologically, these include the following:

1. Core Program Improvement Implementation. MPCA management recognized the need to push for process improvements in core program areas. Two employee teams identified changes that would improve the efficiency and effectiveness of MPCA's permitting, compliance determination and enforcement activities. Starting in July 2001, implementation of the changes, many of which are identified in the Water Report, are moving forward. Some of the changes have been implemented quickly but others are longer term because they require statute or rule changes.

2. Reallocation to Water Point Source Program. In the MPCA's January 2001 biennial budget, we proposed reallocation of six positions to the water point source program from other MPCA regulatory programs. The Legislature approved the MPCA's reallocation request, which became effective on July 1, 2001. Four of the positions have been directed to permitting activities, for a total of 29.5 full time employees; and two of the positions to enforcement activities, for a total of 5.5 full time employees.

3. Organizational Changes. In December 2000, the MPCA began designing organizational changes needed to address problems from the 1998 reorganization. Because some of the organizational changes were dependent on MPCA budget reductions decided during the 2002-2003 biennial budget session, MPCA management chose not to complete the changes until after the session and strike ended. On November 7, 2001 the MPCA implemented the organizational changes. MPCA management believes these corrective changes address problems cited in the Water Report and Funding Report regarding MPCA's 1998 reorganization. These changes will allow the agency to improve the quality of core environmental programs, including the water quality point source program.

4. Assistant Commissioner Assignment. Effective November 7, 2001, Assistant Commissioner Lisa Thorvig was assigned to direct the water quality point source regulatory program and ensure that improvements are made expeditiously.

5. MPCA Indicators of Core Program Improvement. In November 2001, the MPCA commenced measuring progress monthly to ensure that the 2001 organizational changes result in the necessary improvements to the core regulatory programs. Two of the monthly measurements track the water quality point source permit backlog and the compliance status of water quality point sources.

6. Positive Time Tracking Implemented. MPCA management recognized the need for each employee to track how their time is spent so that agency data on staff productivity and on the amount of time it takes to issue permits, conduct inspections, take enforcement actions, clean up contaminated sites, monitor a water body, develop a rule, and so on is available. On January 2, 2002, we implemented an agency-wide positive time tracking system. Positive time reports by each permitting and compliance employee, combined with the MPCA indicators of core program improvement, will provide measures such as the number of permits issued per full time employee as recommended by the 1995 Blue Ribbon Task Force.

7. Development of a Water Plan and Update Report. In November 2001, MPCA managers were assigned to develop a water quality point source plan addressing those recommendations contained in the Water Report, including 1995 and 1996 Blue Ribbon Task Force recommendations, which have not yet been addressed. This plan will be available in February 2002, and will facilitate the development of a water quality point source progress report to the Legislature in 2003 as recommended in the Water Report.

Enforcement. The MPCA would like to highlight the progress we have made in the water quality point source enforcement program. MPCA management understood when we reorganized in 1998, that some of the success of the reorganization would depend on the agency's ability to demonstrate a continuing commitment to enforce environmental violations. Since 1997, the number of MPCA enforcement actions against water quality point source violators has been increasing as follows:

CALENDAR YEAR	Number of Enforcement Actions
1997	22
1998	35
1999	45
2000	48
2001	55

Number of Violations. Also, as indicated in Table 3.2 of the Water Report, in 2000, Minnesota had *fewer* significant point source water violators than most other states. Minnesota was 7 percentage points below the national average and nearly 15 percentage points below the Region 5 state (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin) average.

Finally, the MPCA believes that it is important to re-emphasize to the Legislature and Minnesota public that protecting the quality of Minnesota's waters involves more than controlling industry and municipalities through permits and enforcement. *The Water Report focused solely on point source pollution, which represents approximately 14% of Minnesota's water pollution.* The remaining 86% of water pollution comes from non-point sources, including the activities of individual citizens.

The MPCA appreciates the water quality point source program evaluation provided in the Water Report. The MPCA will continue to consider the recommendations in much greater detail as we implement the improvements described above and as we develop our water quality point source plan. The MPCA looks forward to discussions with legislators and stakeholders regarding the Water Report throughout the year.

Sincerely,

/s/ Karen A. Studders

Karen A. Studders
Commissioner

Recent Program Evaluations

Game and Fish Fund Special Stamps and Surcharges, Update, January 1994 94-01
Performance Budgeting, February 1994 94-02
Psychopathic Personality Commitment Law, February 1994 94-03
Higher Education Tuition and State Grants, February 1994 94-04
Motor Vehicle Deputy Registrars, March 1994 94-05
Minnesota Supercomputer Center, June 1994 94-06
Sex Offender Treatment Programs, July 1994 94-07
Residential Facilities for Juvenile Offenders, February 1995 95-01
Health Care Administrative Costs, February 1995 95-02
Guardians Ad Litem, February 1995 95-03
Early Retirement Incentives, March 1995 95-04
State Employee Training: A Best Practices Review, April 1995 95-05
Snow and Ice Control: A Best Practices Review, May 1995 95-06
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State Agency Use of Customer Satisfaction Surveys, October 1995 PR95-23
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Department of Human Rights, January 1996 96-02
Trends in State and Local Government Spending, February 1996 96-03
State Grant and Loan Programs for Businesses February 1996 96-04
Post-Secondary Enrollment Options Program, March 1996 96-05
Tax Increment Financing, March 1996 96-06
Property Assessments: Structure and Appeals, A Best Practices Review, May 1996 96-07
Recidivism of Adult Felons, January 1997 97-01
Nursing Home Rates in the Upper Midwest, January 1997 97-02
Special Education, January 1997 97-03
Ethanol Programs, February 1997 97-04
Statewide Systems Project, February 1997 97-05
Highway Spending, March 1997 97-06
Non-Felony Prosecution, A Best Practices Review, April 1997 97-07
Social Service Mandates Reform, July 1997 97-08
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State Building Maintenance, February 1998 98-04
School Trust Land, March 1998 98-05
9-1-1 Dispatching: A Best Practices Review, March 1998 98-06
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Metropolitan Mosquito Control District, January 1999 99-03
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Occupational Regulation, February 1999 99-05
Directory of Regulated Occupations in Minnesota, February 1999 99-05b
Counties' Use of Administrative Penalties for Violations of Solid and Hazardous Waste Ordinances, February 1999 99-06
Fire Services: A Best Practices Review, April 1999 99-07
State Mandates on Local Governments, January 2000 00-01
State Park Management, January 2000 00-02
Welfare Reform, January 2000 00-03
School District Finances, February 2000 00-04
State Employee Compensation, February 2000 00-05
Preventive Maintenance for Local Government Buildings: A Best Practices Review, April 2000 00-06
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